County of San Mateo
Planning and Building Department

INITIAL STUDY
ENVIRONMENTAL EVALUATION CHECKLIST
(To Be Completed by Planning Department)

1. **Project Title:** San Mateo County History Museum Taube Family Carriage House Addition

2. **County File Number:** MNA2020-00019

3. **Lead Agency Name and Address:** San Mateo County Planning and Building Department, 455 County Center, Redwood City, CA 94063

4. **Contact Person and Phone Number:** Kanoa Kelley, Planner II; Phone: 650- 363-1873; Email: kkelley@smcgov.org

5. **Project Location:** 2200 Broadway Street, Redwood City, CA 94063

6. **Assessor's Parcel Number and Size of Parcel:** APN# 052367010. Parcel Size is 1.38 acres. Project Disturbance area is 0.17 acres

7. **Project Sponsor's Name and Address:** San Mateo County Historical Association, 2200 Broadway Street, Redwood City, CA 94063. Contact: Mitch Postel; Phone: 650-299-0104

8. **Name of Person Undertaking the Project or Receiving the Project Approval (if different from Project Sponsor):**

9. **General Plan Designation:** The site is County-owned land and does not have a County General Plan Designation. The site is designated in the City of Redwood General Plan as Mixed-Use Development. City designations are provided for informational use only. The site is not subject to City land use or zoning regulations.

10. **Zoning:** The site is County-owned land and does not have any County zoning designation. Zoned by City of Redwood City as Planned Community Development (P). City designations are provided for informational use only. The site is not subject to City land use or zoning regulations.

11. **Description of the Project:** (*Describe the whole action involved, including, but not limited to, later phases of the project, and any secondary, support, or off-site features necessary for its implementation.*)

The San Mateo County Historical Association (Association) proposes to construct a 3-story, 14,000 square foot addition to the San Mateo County Courthouse Museum (History Museum), located at 2200 Broadway Street in downtown Redwood City, California (Figure 1 Regional Location, Figure 2 Project Vicinity). The new Carriage House addition will be located at the rear of the County Courthouse building, behind an annex structure that was added to the Courthouse building in 1941. The Courthouse building (not including the annex) is a historic structure on the National Register of Historic Places. The addition would be located in a paved parking area on the northeast corner of the existing Courthouse building near the intersection of Marshall Street and Middlefield Road. The parking area provides 11 permit parking spaces used by County staff or History Museum staff.

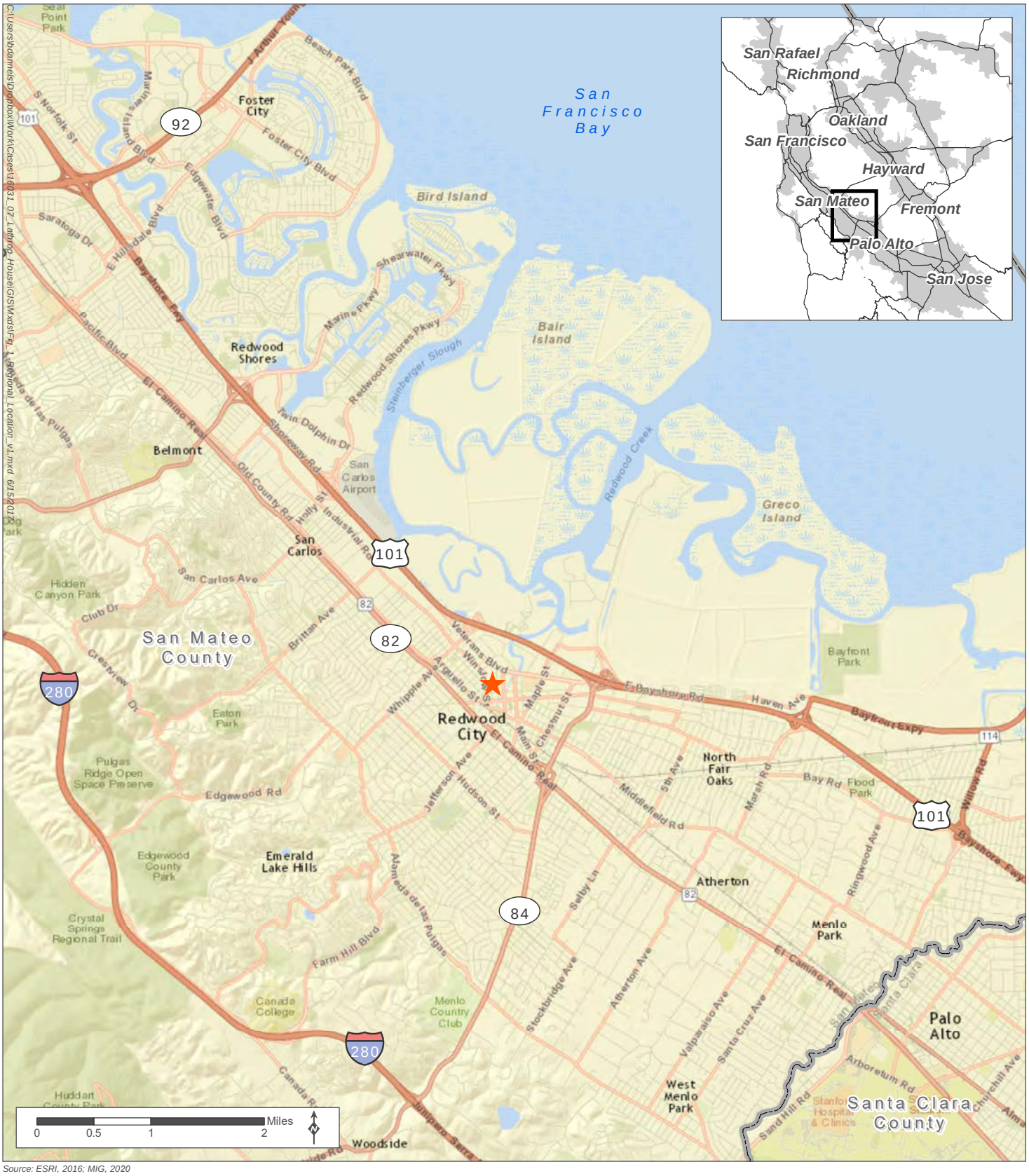
The County Courthouse Museum is owned by San Mateo County but is leased to the San Mateo County Historical Association to operate the history museum. A lease agreement ("Old Courthouse Agreement") between the Historical Association and the San Mateo County Board of Supervisors was amended on October 22, 2019 to allow the utilization of the proposed project site for the new Carriage House addition.

The addition and associated improvements are intended as part of a single cultural attraction (Museum Block) containing the Courthouse Square, History Museum including the new Carriage House addition, and Lathrop House (Figure 3 Site Plan). The Courthouse building and Lathrop House are both on the National Register of Historic Places.

Project Components

The addition is called the Taube Family Carriage House, or Carriage House, at the San Mateo County History Museum (Figure 4 Enlarged Site Plan). The project site plans are presented as Appendix A of this IS/MND. The bottom two floors will contain exhibit space to display the Museum's Brewster Carriage Collection as well as other County Victorian era artifacts. The top floor will consist of a banquet room, covered roof terrace areas, catering kitchen, and restrooms. The Carriage House Addition will not alter History Museum hours or special events but the new banquet room on the 3rd floor will allow the History Association to host an increased number of private events. Two sets of stairs and an elevator will provide vertical access within the Carriage House addition as well as to the Annex building and ground floor emergency exits. A bottom floor entrance off Marshall Street will allow for a second, ticketed entryway to the museum complex/building. Internal doors can be operated to restrict movement between the Carriage House and the main museum building as needed.

Each floor of the proposed addition is approximately 4,670 square feet and the addition will have a maximum building height of approximately 43.5 feet. The height of the addition was established so that views of the Courthouse rotunda will not be blocked from surrounding streets. The building will consist of stucco walls, metal framed windows with arched accents at the building corners and a metal roof. The architectural styling of the proposed building is meant to be sympathetic to the historic architecture of the block but will not mimic the "steamboat gothic" architecture of the adjacent historic Lathrop House or the Roman-Renaissance style of the Old Courthouse (Figures 5a, 5b, 5c, 5e Building Elevations and Figure 6 Visual Rendering).



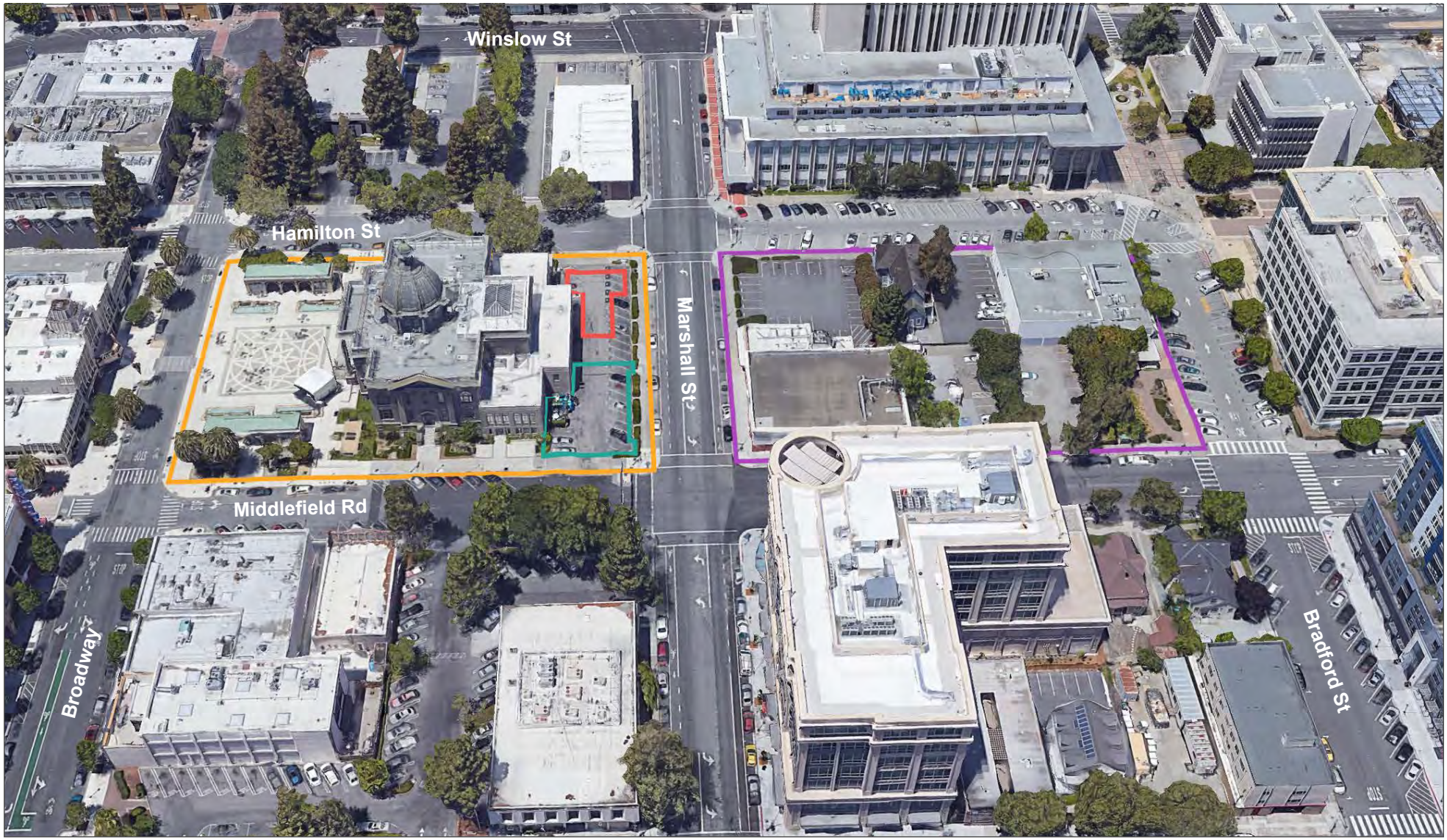
Source: ESRI, 2016; MIG, 2020

★ Project Location Area

County Boundary

Figure 1 Regional Location

San Mateo County History Museum Taube Family Carriage House Addition



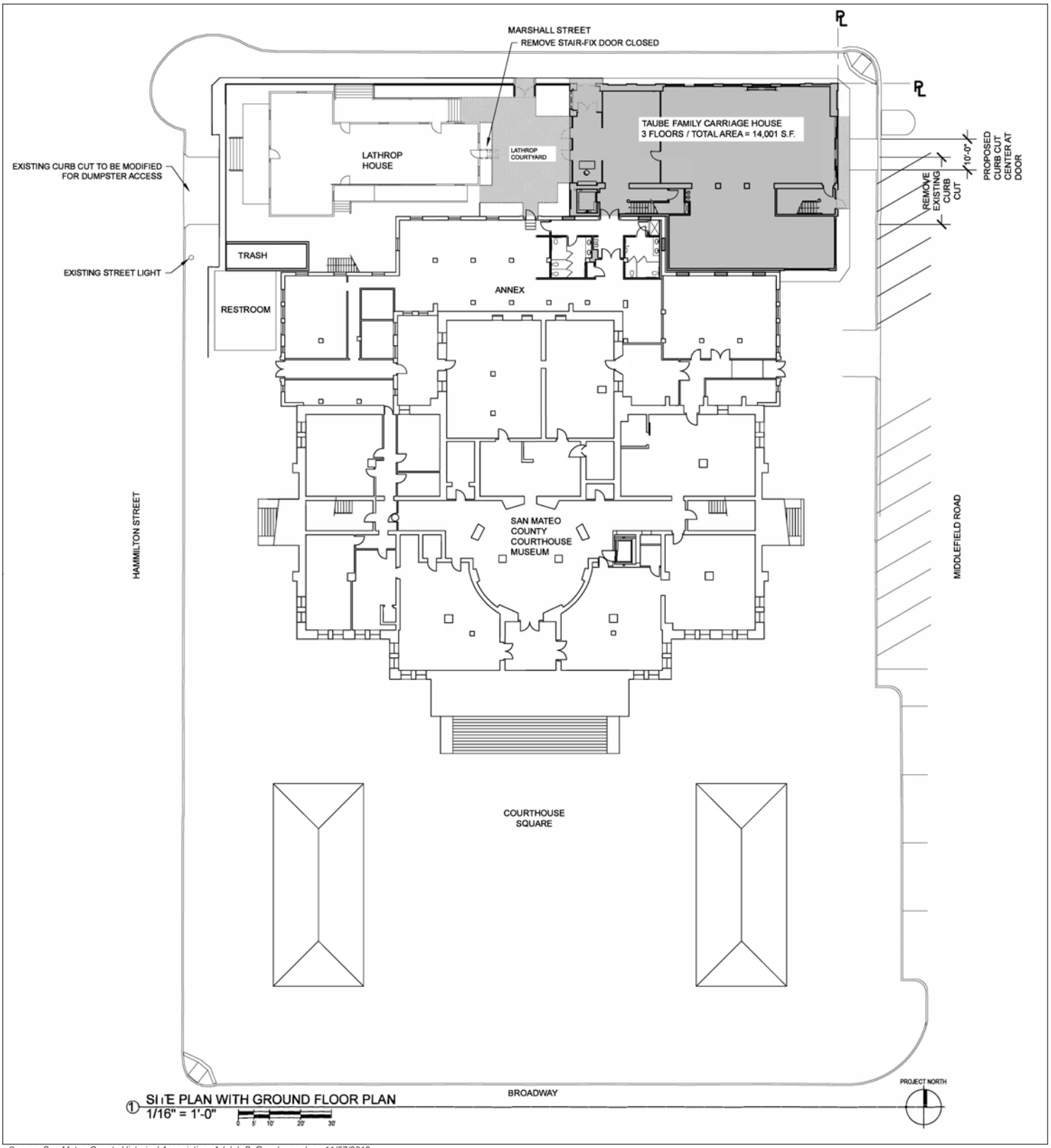
Source: Google Earth, 2020; San Mateo County Historial Association, Adoph S. Rosedrans, Inc., 11/07/2019; MIG, 2020

Project Area
Taube Family Carriage House Addition
Lathrop House Relocation Site
Proposed Location of County Office Building #3 and Plaza

0 25 50 100 Feet

Figure 2 Project Vicinity

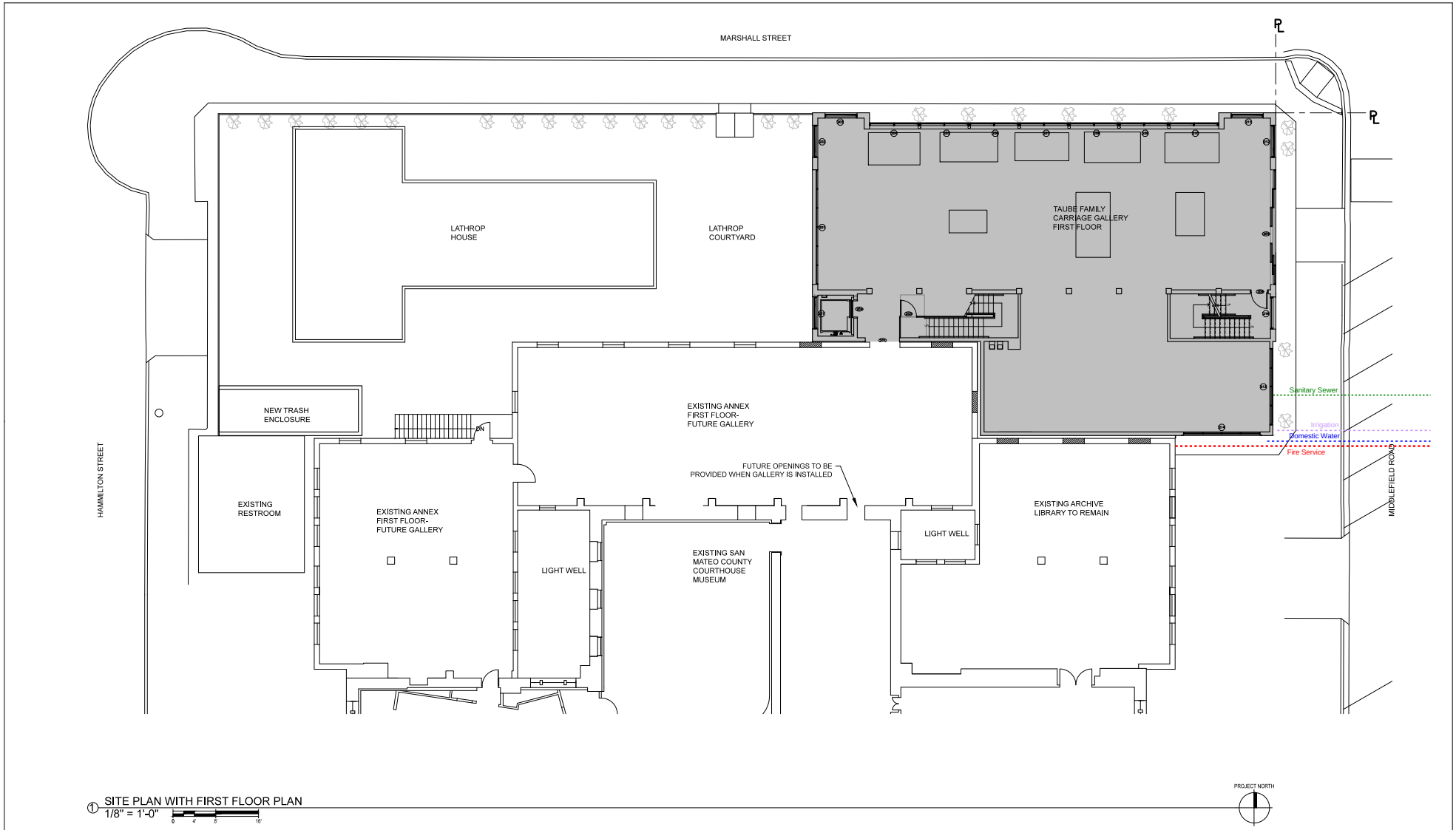
San Mateo County History Museum Taube Family Carriage House Addition



Source: San Mateo County Historical Association, Adolph S. Rosekrans, Inc.; 11/07/2019

Figure 3 Site Plan

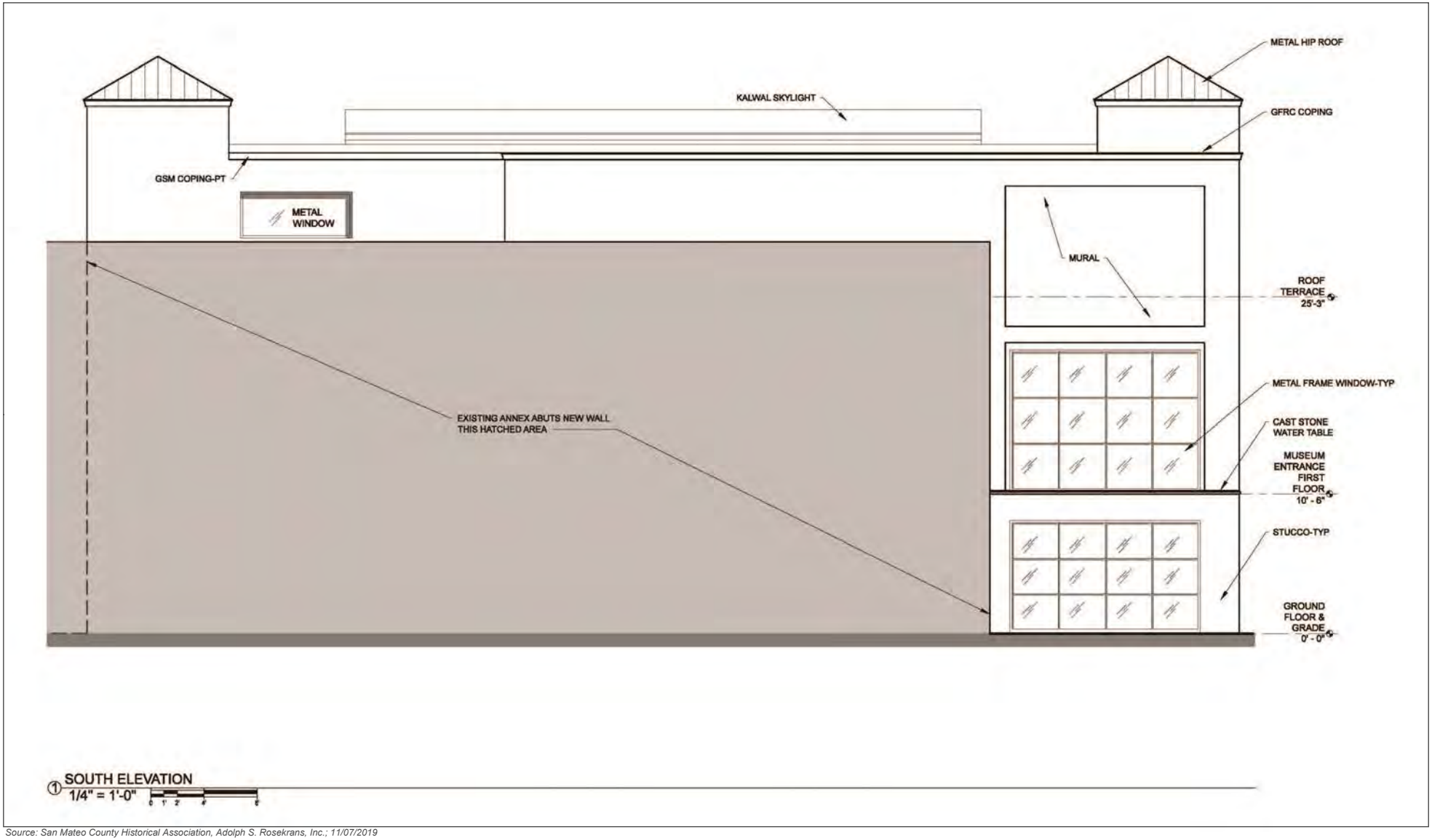
San Mateo County History Museum Taube Family Carriage House Addition



Source: San Mateo County Historical Association, Adolph S. Rosekrans, Inc.; 11/07/2019

Figure 4 Enlarged Site Plan

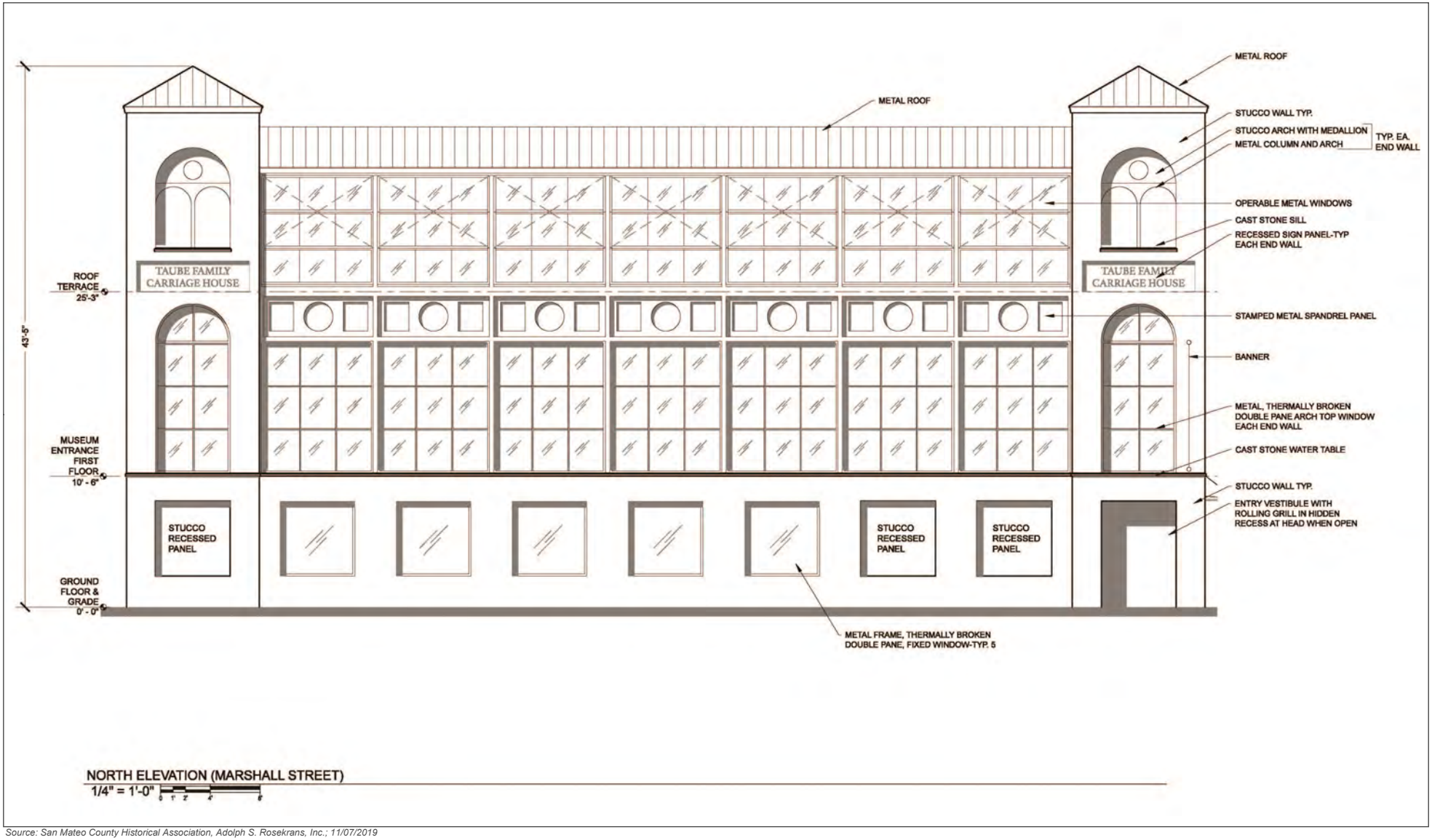
San Mateo County History Museum Taube Family Carriage House Addition



Source: San Mateo County Historical Association, Adolph S. Rosekrans, Inc.; 11/07/2019

Figure 5a Building Elevations - South Elevation

San Mateo County History Museum Taube Family Carriage House Addition



Source: San Mateo County Historical Association, Adolph S. Rosekrans, Inc.; 11/07/2019

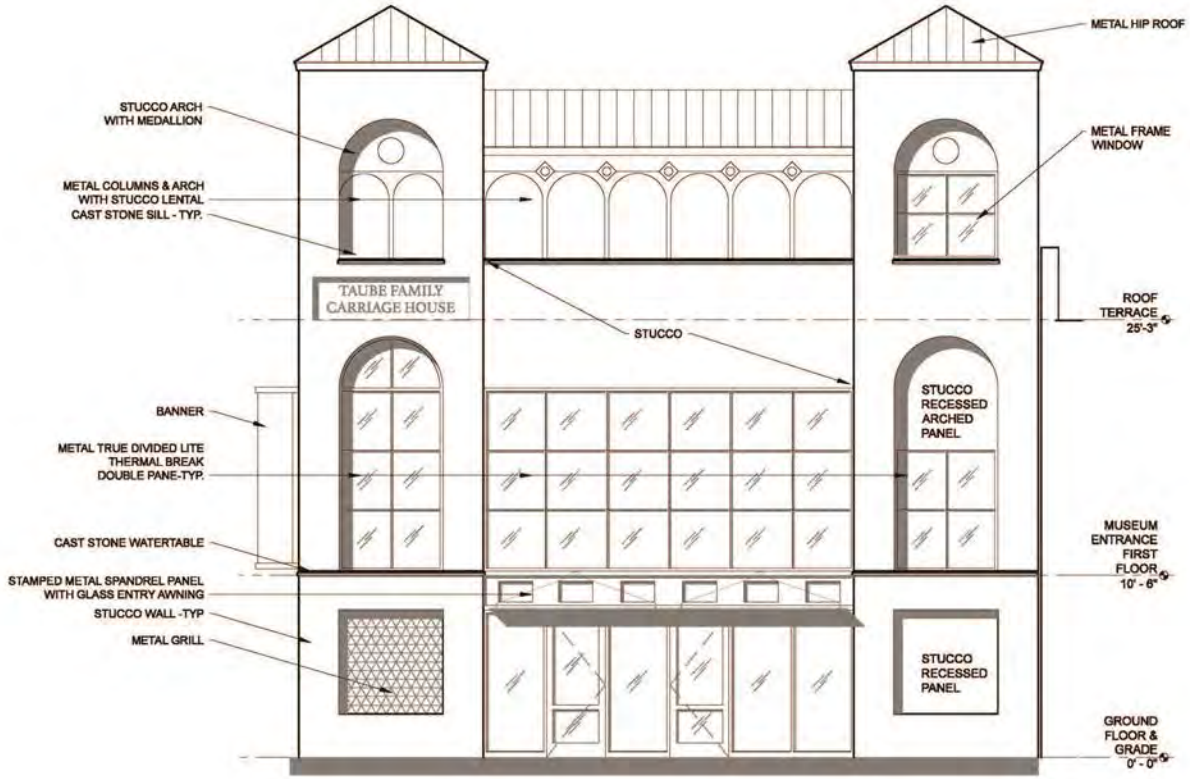
Figure 5b Building Elevations - North Elevation

San Mateo County History Museum Taube Family Carriage House Addition

Source: San Mateo County Historical Association, Adolph S. Rosekrans, Inc.; 11/07/2019

Figure 5c Building Elevations - East Elevation

San Mateo County History Museum Taube Family Carriage House Addition



Source: San Mateo County Historical Association, Adolph S. Rosekrans, Inc.; 11/07/2019

Figure 5d Building Elevations - West Elevation

San Mateo County History Museum Taube Family Carriage House Addition

Source: San Mateo County Historical Association, Adolph S. Rosekrans, Inc.; 11/07/2019

Figure 6 Visual Rendering

San Mateo County History Museum Taube Family Carriage House Addition

Existing and Proposed Square Footage

Table 1 below shows the existing square footage of the History Museum and the proposed square footage of the new Carriage House Addition.

Table 1: Existing and Proposed Square Footage (SF)

Feature	Square Footage
Courthouse Building (3 floors: 14,633 SF/each)	43,900
Annex (2 floors: 6,320 SF/each)	12,640
Existing Total	**56,540**
New Carriage House Gallery Addition (3 floors @ 4,667 SF/each)	14,001
Proposed Total	**70,541**

Site Plan Features

See Appendix A for the full set of site plans. Figures 3 and 4 illustrate how the new addition will fit on the back of the History Museum Annex. Figure 3 shows footprint of the Carriage House attached to the Annex and filling the existing parking lot space to the parcel boundary at Marshall Street and Middlefield Road. The main entrance to the Carriage House Addition will be from the south in front of the Courthouse Square facing Broadway. A secondary entrance will be located off Marshall Street where visitors will enter from the sidewalk or the Lathrop House Courtyard to the lobby/ticket booth within the Addition. The Carriage House Addition will also have an extra-wide entrance from Middlefield Road with sliding/stacking glass doors for exhibit delivery, as well as a stairway exit on to the Middlefield Road sidewalk. The exhibit entrance on Middlefield Road will require changes to the existing curb cut and pavers will replace the existing sidewalk to visually demarcate the delivery entrance. Street landscaping will be provided along the Middlefield Road and Marshall Street sides of the Carriage House and in the Lathrop Courtyard consisting of street trees, shrubs along the fence by the Lathrop House and planter boxes in the Lathrop Courtyard.

Site improvements necessary as part of the project include:

- Fencing – Fencing would be added along the Marshall Street side of the museum complex, extending to the Lathrop House to enclose the complex. Fencing and the buildings themselves would enclose the attractions in order to consolidate access into the ticketed access areas through two main entrances; one from the Courthouse Square, and the other from the proposed Carriage House addition. The fence will be a metal picket fence at the sidewalk edge along the rear portion of the Marshall Street side of the Lathrop house.
- The current trash enclosure will be moved from the east side of the block to the west side, immediately north of the Lathrop House. The existing curb cut will be modified for access to the dumpsters. The new trash enclosure will be stucco-clad or painted concrete block with a metal gate trash enclosure, to ensure there is adequate space and accessibility for the new enclosure and to ensure the safety of service vehicles and employees, the trash collector, Recology must approve the new location and design.

- HVAC equipment on the roof will consist of (2) VFR Units, (1) Heat Pump Package Unit, (2) Rooftop Exhaust Fans, and (1) Make-up Air fan.

Utilities:

- Electrical – The proposed improvements require the relocation of an existing 12kV primary electrical feed serving the existing History Museum site and an above ground transformer. Both are presently located within the footprint of the proposed addition. The transformer is proposed to be relocated to the Middlefield Road-side of the museum complex and the new 12kV feed would tie back into the original point of connection in an electrical vault on Marshall Street. The work will also require the installation of a new switch board which is proposed in the old Annex building, with the new secondary feeders to the proposed Middlefield underground transformer.
- Walter/Sanitary Sewer lines – New potable water and sanitary sewer lines will be constructed from the main lines in Middlefield Road to the southeast corner of the Carriage House building (See Figure 4).

Once the 14,001 sq. ft. Carriage House addition is constructed on the back of the Annex there will be a small space (approximately 29 feet x 42 feet) between the new addition and the Lathrop House that will be called the Lathrop Courtyard. The existing asphalt will be removed and replaced with pavers. The project proposes to remove the existing staircase at the back of the Lathrop House leading into the new Courtyard and permanently close the Lathrop House back door. Planter boxes would be placed around the new courtyard, including along the rear of the Lathrop House.

Existing and Proposed Museum Operations

Existing visitorship to the San Mateo County History Museum is approximately 35,000 annual visitors (2019) down from a high of approximately 45,200 in 2017 (for data 2015-2019). The History Museum is open Tuesday-Sunday from 10 a.m.-4 p.m. The Archives located inside the museum are open Tuesday-Thursday from 10 a.m. – 4 p.m. (closed 12-1 p.m.) and Sunday from 12-4 p.m. Encore Books on the Square, located in the lower level, is open Tuesday-Saturday from 11 a.m.-3 p.m. Programs at the History Museum include school tours, family programs, lectures, special event days, and evening facility rental for private parties and events in the historic Courtroom A (approximately 25 events a year).

The Association anticipates annual visitorship could double, increasing to 70,000 visitors per year. All existing programs and activities would continue and the Association would like to increase the number of private parties and events held at the History Museum by hosting events on the 3rd floor that includes a banquet room, covered roof terrace areas, and catering kitchen. The Association's goal is to have the new rooftop venue double the number of evening rental events that historic Courtroom A generates for the History Museum. The History Museum currently hosts approximately 25 events per year in Courtroom A.

The new facilities will have capacity to have bigger crowds, and between the two venues (historic Courtroom A and the new 3rd floor banquet room) the Association could host up to 52 events in a year (one a week). The Association anticipates the new 3rd floor banquet facilities could host up to an additional 27 events a year of 100 to 200 people each with the evening rental events on the Carriage House rooftop venue generating about 4,000 additional people coming to the Museum. In addition, the Association expects day-time utilization by business groups will add about 12 new events per year with attendance between 50 and 200, generating another 1,500 people. Thus, total rental utilization of the rooftop venue will result in about 5,500 participants.

Parking

Currently, visitors to the History Museum are directed to park in the parking garage under the Century Theaters at Broadway Street and Middlefield Road. A special agreement with the City of Redwood City allows visitor to utilize the underground parking garage at 601 Marshall Street on weekends and weekday nights, free of charge. With the increase in evening events held at the History Museum, additional parking structure and street parking in downtown Redwood City would be utilized by event patrons.

Currently History Museum staff and County employees use the 11 parking spaces on the project site. The loss of the 11 spaces would be replaced by new spaces created in the County's parking structure being constructed as part of the County Government Center project described below under Surrounding Land Uses.

Project Construction

The project would have a work area of 7,446 sq. ft which includes the building footprint of 4,700 sq. ft. plus the Lathrop Courtyard and trash enclosure are adjacent to the Lathrop House. The project will require minimal grading since it is a flat, paved parking lot. The asphalt paving would be removed off-site and utility improvements and building construction would commence. Demolition is estimated to take approximately two weeks, followed by grading and utility improvements for four weeks, and then new building construction (substructure, superstructure & finishes) is estimated to take approximately 12.5 months.

The 12-kilovolt (kV) utility relocation drawings (done by PG&E) are expected to take 6 months with underground utility construction starting approximately January 2021 and completing January 2021.

Building construction drawings are expected to be done about September 2020 then submitted to San Mateo County for plan check and construction beginning December 2020 lasting to February 2022.

No off-site staging areas are expected as the temporary construction management office will be within the Annex building and the remaining parking lot area will act as a staging area as well as some on-site area along Middlefield Road.

Construction Equipment

The following construction equipment would be required for each phase of construction:

Demolition and Grading Operations: (1) Front-Loader, (3) Ten-Wheel dump trucks (intermittently), (1) Sheepsfoot / smooth drum rollers.

Foundation Construction: (1) 1/2 CY Backhoe, (1) Ten-Wheel dump truck, then intermittently (3) Ready-Mix trucks, (1) Concrete Pump. During Structural Steel erection (1) 50 Ton Hydraulic Crane along with (1) Semi flatbed truck delivering structural steel members.

Exterior Building Construction: For the construction of the building exterior skin system, scaffolding will be erected along Marshall St and Middlefield where the building is adjacent to the property line.

Traffic & Pedestrian Disruptions

Pedestrian traffic along south side of Marshall Street from Hamilton Street to Middlefield Road is expected to be redirected to north side of Marshall Street and the westerly side of Middlefield Road from Marshall Street to Broadway Street will be redirected to the Middlefield easterly sidewalk. During grading, the northerly end of Middlefield will have intermittent interruption of traffic flow as vehicles leaves / enter site and will be dealt with by flagmen. Parking along

Marshall Street, east of Lathrop House, is expected to only be intermittent barricaded during steel erection operation.

Best Management Practices Incorporated into Project

The following Best Management Practices (BMPs) will be incorporated into the planning, design, and construction of the proposed project to minimize the potential adverse effects of the project on the environment. The BMPs included here are either considered standard BMPs that apply to all projects or measures the applicant has agreed to implement as part of the project. As such, these measures are considered part of the project and not "mitigation" for potential environmental impacts. The County will incorporate these BMPs into the project's Conditions of Approval and the Applicant will include these measures on all construction documents.

Best Management Practices Incorporated into the Project	
Cultural Resources	Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California, in the event of the discovery of human remains during construction, the construction manager shall stop work and notify the San Mateo County Coroner. If the Coroner determines that the remains are not subject to his/her authority, he/she shall notify the NAHC who shall attempt to identify the Most Likely descendant (MLD) of the deceased.
Construction Demolition Waste	Demolition Debris Management and Disposal Plan - The San Mateo County History Association or its contractor must develop and implement a demolition debris management and disposal plan for the non-Resource Conservation and Recovery Act hazardous materials that are to be removed from the project site per compliance with County waste diversion requirements in San Mateo County Code of Ordinances, Section 4.105.030 (100 percent of inert solids and at least 50 percent of the remaining construction and demolition debris tonnage). The plan must be designed to prevent releases of hazardous materials in quantities that could pose a risk to human health and the environment, as determined using appropriate BAAQMD, RWQCB, DTSC, and/or other appropriate agency screening thresholds. The plan must identify the receiving qualified landfill and present proof of waste acceptance. The plan must also specify measures to minimize airborne dust during building deconstruction and soil movement to protect construction workers and neighboring residents from exposure to hazardous material emissions. The plan must address protection of worker exposure to airborne lead paint particulates through use of personal protective gear, clear identification of the location of hazardous materials, and removal by properly trained/certified workers, and proper cover and transport of hazardous materials, etc.
Geology/Soils	The County will require preparation of a site-specific geotechnical report per County General Plan Policy 15.21 (Requirement for Detailed Geotechnical Investigations). The project will include all recommendations contained in the site-specific geotechnical report.
GHG / Energy Efficiency	The project will meet or exceed current CALGreen Standards. CalGreen standards include measures for energy efficiency, water

Best Management Practices Incorporated into the Project	
	efficiency and conservation, and others. The project currently includes, but is not limited to: • Directing stormwater runoff from sidewalks to landscaped areas or pervious paving, • Directing stormwater runoff from roofs to bioretention planters or media filters, • energy efficient lighting (low voltage), • low-flow plumbing features, • radiant water heating,
Hazards and Hazardous Materials	Standard BMPs shall be employed to protect stormwater from accidental leaks and potential pollutants as part of the SWPPP prepared for the project (see Hydrology/Water Quality BMPs below). The San Mateo County History Association's contractor shall be responsible for complying with all general and State Requirements involving the removal and disposal of hazardous materials. There may be asbestos containing pipe and pipe installation or other hazardous materials within the project area. The contractor will protect all hazardous containing items during the execution of this contract. Additionally, the contractor will comply with all local, state, and federal regulations regarding construction activities near hazardous materials.
Hydrology/Water Quality	The San Mateo County History Association or its contractor shall prepare a Grading and Drainage Plan that is consistent with the requirements of Provisions C.3 and C.6 of the Regional Water Quality Control Board Municipal Regional National Pollutant Discharge Elimination System (NPDES) permit. The History Association or its contractor shall prepare an Erosion control plan which includes the San Mateo County Water Pollution Prevention Program's Construction BMPs plan sheet to be implemented during the construction process and prohibit the discharge of any waste or sediment into the storm drain system.
Noise and Vibration	The San Mateo County History Association and/or its contractor shall carry out project construction consistent with San Mateo County Noise Ordinance requirements and general noise BMPs. **The San Mateo County Noise Ordinance** contains Chapter 4.88 (Noise Control), which establishes standards to control unnecessary and excessive noise in the incorporated and unincorporated portions of the County of San Mateo. Chapter 4.88 stipulates that noise sources associated with demolition, construction, repair, remodeling, or grading activity are exempt from the noise ordinance, provided the activities occur between the hours of 7:00 A.M. and 6:00 P.M. on weekdays, and 9:00 A.M. and 5:00 P.M. on Saturdays. Construction noise on Sundays, Thanksgiving, and Christmas is not exempt. Additional general construction noise BMPs shall also be implemented: 1) Ensure all internal combustion engine driven equipment have intake and exhaust mufflers that are in good working condition and appropriate for the equipment

Best Management Practices Incorporated into the Project	
	2) Prohibit unnecessary idling (i.e., no more than five minutes pursuant to the Air Quality BMPs included in the project) 3) Locate stationary noise generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors 4) Use "quiet" air compressors and other stationary noise sources as much as feasible 5) Route all construction traffic to and from the project area via designated truck routes as much as possible 6) Control noise from construction workers' radios such that the noise from the radio is not audible beyond the property line of the construction site
Traffic and Transportation	The San Mateo County History Association or its contractor shall prepare and implement a Construction Traffic Management Plan to be implemented during construction. The Plan shall be approved by San Mateo County. The Plan shall include, but not be limited to the following measures/actions: 1) Ensure safe pedestrian and bicycle access along Middlefield Road, Marshall and Hamilton Streets. 2) Ensure conflicts do not occur between passenger vehicles and construction trucks/equipment. 3) Ensure adjacent driveways are not blocked by construction equipment or trucks. 4) Ensure construction area, all equipment staging areas, and operation areas are secured from access by the public. 5) Flagmen will be provided as necessary to ensure pedestrian, bicycle and passenger vehicle safety. 6) A designated haul route will be identified for all construction truck traffic.

12. **Surrounding Land Uses and Setting:** The project site is in the north-central portion of the Redwood City Downtown Precise Plan area (North of Marshall District). The County History Museum is part of the County's Government Center Campus and is in the center of a block bounded by Marshall Street to the north, Broadway Street to the south, Middlefield to the east and Hamilton Street to the west. The History Museum faces Broadway Street, with a large plaza used for public events in front. The Fox Theater is across Broadway from the History Museum. The rear of the History Museum faces Marshall Street and the San Mateo County Government Center campus, including the San Mateo County Superior Court and County office buildings. Other surrounding land uses include the San Mateo County Law Library across Hamilton Street, restaurants, downtown commercial and office buildings, and high-density residential uses further north on Middlefield Road,

    The San Mateo County Government Center Campus spans multiple County blocks bounded by Veterans Boulevard, Middlefield Road, Broadway Street, Winslow Street, and Brewster Avenue. The County is currently undertaking a large project on its campus consisting of the removal of several older County owned buildings and the construction of a new County Office Building #3 (COB3), a new parking structure, and creation of a plaza and promenade linking multiple County government buildings on the County campus.

As part of this project the County relocated the historic Lathrop House to its current location behind the History Museum. The Lathrop House is a historic building listed on the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR).

The new County parking structure would be located at the corner of Middlefield Road and Veterans Boulevard in what was formerly the juror permit parking lot adjacent to the existing County parking structure.

The County campus improvement includes a new pedestrian only promenade to connect the existing and new campus facilities. The promenade would extend along Hamilton Street from the new parking structure south to Marshall Street. This pedestrian-oriented amenity would convert the northern terminus of Hamilton Street and County Center within the County Government Center campus to pedestrian only use. The County has right-of-way to this section of Hamilton Street and street parking is limited to County vehicles.

A public plaza would be constructed north of the new COB3 in the current location of the San Mateo County Superior Court/Traffic and Small Claims. The feature is proposed to merge the new office building into the existing campus buildings by creating open space for public events, gatherings, and functions. The plaza could be used as an area for people to congregate; neighborhood events held could include farmer's market and potentially some modest public gatherings. No large scale, amplified events would occur (San Mateo County 2018).

The entire downtown area of Redwood City is zoned Planned Community Development (P) and designated by the City General Plan as Mixed-Use Development.

Relationship to Redwood City Downtown Precise Plan

The History Museum is located on County property within the City of Redwood City's Downtown Precise Plan (DPP) area. Although the DPP requirements do not apply to County projects on County-owned land, the DPP does provide a regulatory framework for new development in the downtown area surrounding the County Government Center campus. The DPP is therefore useful as contextual background for understanding consistency of the County's project with the surrounding visual resources and regulatory environment. The DPP regulates historic resources, land use, the creation of new streets, public frontage, building placement and landscaping, parking, building height and disposition, facade composition, architectural character, and signage. Though not requirements for this project, these factors are acknowledged for consideration by the County in its design review process.

13. **Other Public Agencies Whose Approval is Required:**

A lease agreement ("Old Courthouse Agreement") between the San Mateo County Historical Association and the San Mateo County Board of Supervisors was amended on October 22, 2019 to allow the new Carriage House addition to the existing County Courthouse History Museum structure. County Demolition, Building and Fire Department permits will be required.

The County's review and approval process will follow the steps outlined below:

- Based on the new contract with the County, the History Museum will submit a proposal with all plans to the Real Property Department along with the Initial Study that has been circulated for public review.
- The Real Property Department shall arrange for plan review by the building official.
- The Real Property Department refers the project to the County Manager for review. The manager's office sends a letter stating that the letter of request and accompanying materials are sufficient.

- The project is scheduled for a Board of Supervisors Hearing by Real Property to approve the project and certify the CEQA Document.

City of Redwood City: Utility (electrical and sewer) work related to the project is located within the City of Redwood City (City) right-of-way and connection to the City's infrastructure, requiring approval and an easement from the City's Department of Public Works.

PG&E: Approval by PG&E of the relocation of an existing 12kV primary electrical feed serving the existing County Courthouse Museum site and an above ground transformer. Both are presently located within the footprint of the proposed addition and must be relocated.

Recology: Recology, the trash disposal company, must review and approve the location and design of the proposed trash enclosure to ensure adequate space and accessibility.

14. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?:** *(NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process (see Public Resources Code Section 21080.3.2.). Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality).*

To date the County has not received a request for tribal consultation pursuant to Public Resources Code Section 21080.3.1. County Planning staff sent an outreach letter to tribes identified by the Native American Heritage Commission and all tribes received the letter via certified mail on April 30th, 2020. The County did not receive any responses from the tribes within 30 days of receipt.

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" or "Significant Unless Mitigated" as indicated by the checklist on the following pages.

	Aesthetics		Energy		Public Services
	Agricultural and Forest Resources		Hazards and Hazardous Materials		Recreation
X	Air Quality		Hydrology/Water Quality		Transportation
X	Biological Resources		Land Use/Planning	X	Tribal Cultural Resources
	Climate Change		Mineral Resources		Utilities/Service Systems
X	Cultural Resources		Noise		Wildfire
	Geology/Soils		Population/Housing	X	Mandatory Findings of Significance

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in 5. below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other California Environmental Quality Act (CEQA) process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. Sources used or individuals contacted should be cited in the discussion.

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1. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
1.a.	Have a substantial adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads?			X	

Discussion: Scenic Vistas. The proposed project site is located in an urban downtown setting on the San Mateo County Government Center campus. The downtown area of Redwood City is not part of a scenic vista and County Government Center campus is not visible from broader views outside the immediate downtown vicinity. No impact would occur.

Residential Views. The proposed museum expansion would be located at an existing paved parking area behind the County Museum. The expansion is three stories (34 feet, 9 inches roof line, 43 feet, 5-inches overall) in height, which is shorter than the existing adjacent main museum building and slightly taller than the roofline of the Lathrop House. Other buildings, existing and under construction in the project vicinity have varied heights between 1 and 10 stories in height. Residential uses with views facing Marshall Street at the intersection of Middlefield Road would have views of the proposed expansion. The expansion would be viewed in the context of the surrounding buildings with similar heights and mass and is considered consistent with the surrounding urban development. In addition, the height of the proposed expansion does not exceed the existing roofline height of the County museum nor the dome at the top of the courthouse structure. Once completed the Carriage House addition would have architectural details that would make it more visually interesting and attractive than the existing back of the History Museum Annex. Project impacts to residential view is less than significant.

County visual policies do not protect specific views from private property but recognize the importance of aesthetic quality and minimization of aesthetic impacts (See Response 1.c, below).

Views from Public Lands, Water Bodies, and Roads. There are no water bodies or open space lands in the project vicinity. Public spaces in the project area are characterized as urban plazas, parklets, and pedestrian promenades. Views from roads are similar to those described for residential views. The streetscape views would be altered by the proposed project in a manner consistent with the downtown character. The impact to these views is less than significant.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

1.b.	Substantially damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X

Discussion: The project site is not within view of a state scenic highway or a County designated scenic roadway. The nearest designated scenic roadway is Interstate 280, which is over three miles away and not visible to or from the project site. No impact would occur.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

1.c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings, such as significant change in topography or ground surface relief features, and/or development on a ridgeline? (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?			X	

Discussion: The project is located on County-owned land without County General Plan Land Use or Zoning designations. The San Mateo County General Plan, adopted by the County Board of Supervisors in 1986, contains policies that manage and protect sensitive visual resources and regulate development. The San Mateo County General Plan Visual Resources Element has the following goals and objectives pertaining to visual quality.

- 4.1 Protection of Visual Quality. Protect and enhance the natural visual quality of San Mateo County. b. Encourage positive visual quality for all development and minimize adverse visual impacts
- 4.3 Protection of Vegetation. Minimize the removal of visually significant trees and vegetation to accommodate structural development.
- 4.4 Appearance of Rural and Urban Development. Promote aesthetically pleasing development in rural and urban areas.

The Visual Resources Element also contains the following general and urban area policies:

- 4.15 Appearance of New Development. Regulate development to promote and enhance good design, site relationships and other aesthetic considerations
- 4.21 Utility Structures. Minimize the adverse visual quality of utility structures, including roads, roadway and building signs, overhead wires, utility poles, T.V. antennae, distributed energy resources, solar water heaters, and satellite dishes.
- 4.36 Urban Area Design Concept. Maintain and, where possible, improve upon the appearance and visual character of development in urban areas. Ensure that new development in urban areas is designed and constructed to contribute to the orderly and harmonious development of the locality.

The architectural styling of the proposed expansion is meant to be sympathetic to the architecture of the block consisting of the historic Lathrop House and Old Courthouse, both of which are on the National Register of Historic Places (NRHP) (see Figure 5 Building Elevations and Figure 6 Visual Rendering in Project Description).

Due to the historical sensitivity of the site, the architectural design is required to meet Secretary of the Interior Standards to preserve the integrity of the existing buildings' National Register designation. Additionally, the project is subject to County Planning staff review to ensure consistency

of visual character through architectural design, selected building materials and colors, and other improvements or features such as fencing and lighting. The project would not conflict with County regulations governing scenic quality and the project would have a less than significant impact on scenic quality.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

1.d.	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?			X	

Discussion: The project site contains existing night lighting associated with typical urban uses in and around the site. Exterior night lighting for the new Carriage House addition would be designed to be energy efficient as required by California Building Code and County code requirements and would be required to have features that constrain the light within the site as much as possible. The lighting system would be consistent with San Mateo County lighting standards, which incorporate requirements to reduce the impacts of light pollution, light trespass, and glare to the surrounding area. The standards regulate lighting characteristics, such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Any overhead lighting (wall mounted) would be full cutoff lights which direct light downward and adhere to glare requirements limiting the intensity of the light.

The proposed lighting plan would be reviewed by County planning staff prior to being approved to ensure that the project does not create new light and glare impacts in the project area or to adjacent residences. With conformance to County regulations, the project's light and glare impact is less than significant.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

1.e.	Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?				X

Discussion: See discussion under 1b, above. The project site is not located near a designated scenic highway or scenic corridor. No impact would occur.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

1.f.	If within a Design Review District, conflict with applicable General Plan or Zoning Ordinance provisions?				X

Discussion: The project site is not located in a County Design Review District. The project site is located on County-owned property within the County Government Center campus in Redwood City. The County project is not subject to Redwood City General Plan or Zoning Ordinance requirements. As County land within an incorporated city, the property does not have applicable County General Plan or Zoning Ordinance requirements. County design review will occur at the County staff level as described in Section 3.3.4. No impact would occur.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

1.g.	Visually intrude into an area having natural scenic qualities?				X

Discussion: The project site is located within a highly urbanized area of downtown Redwood City. Therefore, the project does not have the potential to visually intrude on an area having natural scenic qualities. There would be no impact from visual intrusion into areas with natural scenic qualities.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

2. AGRICULTURAL AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
2.a.	For lands outside the Coastal Zone, 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				X

	California Resources Agency, to non-agricultural use?				

Discussion: The project is located at 2200 Broadway Street in Redwood City, California. The 2018 San Mateo County Important Farmland map shows that the project is in "urban and built-up land." Therefore, the project would not 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. The project would not impact farmland.

Source:

California Department of Conservation. 2019. San Mateo County Important Farmland 2018. Department of Land Resource Protection. Accessed April 8, 2020 at https://www.conservation.ca.gov/dlrp/fmmp/Pages/SanMateo.aspx.

2.b.	Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				X

Discussion: The project is located on County-owned land and does not have any County zoning designation. Zoned by City of Redwood City as Planned Community Development (P). City designations are provided for informational use only. The site is not subject to City land use or zoning regulations. The project would not impact land zoned for agricultural use, land with an Open Space Easement or under Williamson Act contract.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

2.c.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use?				X

Discussion: The project is located in an urban area and would not involve other changes in the existing environmental which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use. The project would not impact Farmland or Forestland.

Source:

California Department of Conservation. 2019. San Mateo County Important Farmland 2018. Department of Land Resource Protection. Accessed April 8, 2020 at https://www.conservation.ca.gov/dlrp/fmmp/Pages/SanMateo.aspx.

2.d.	For lands within the Coastal Zone, convert or divide lands identified as Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?				X

Discussion: The project is not located in the Coastal Zone and would not convert or divide lands identified as Class I or Class II Agricultural Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts. The project would not impact lands with the Coastal Zone or agricultural lands.

Source:

California Department of Conservation. 2019. San Mateo County Important Farmland 2018. Department of Land Resource Protection. Accessed April 8, 2020 at https://www.conservation.ca.gov/dlrp/fmmp/Pages/SanMateo.aspx.

2.e.	Result in damage to soil capability or loss of agricultural land?				X

Discussion: The project is in urban area on land that has been long developed. The project would not result in damage to soil capability or loss of agricultural land.

Source:

California Department of Conservation. 2019. San Mateo County Important Farmland 2018. Department of Land Resource Protection. Accessed April 8, 2020 at https://www.conservation.ca.gov/dlrp/fmmp/Pages/SanMateo.aspx.

2.f.	Conflict with existing zoning for, or cause rezoning of, forestland (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))? *Note to reader: This question seeks to address the economic impact of converting forestland to a non-timber harvesting use.*				X

Discussion: The project is located on County-owned land and does not have any County zoning designation. The parcel is zoned by City of Redwood City as Planned Community Development (P). City designations are provided for informational use only. The site is not subject to City land use or zoning regulations. The project would not impact lands zoned as forestland, timberland or Timberland Production.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

		Potentially Significant Impacts	Significant Unless Mitigated	Less Than Significant Impact	No Impact
3.a.	Conflict with or obstruct implementation of the applicable air quality plan?				X

Discussion: The proposed project would not conflict with nor obstruct implementation of the Bay Area Air Quality Management District (BAAQMD) *2017 Clean Air Plan*. The *2017 Clean Air Plan* includes increases in regional construction, area, mobile, and stationary source activities, and operations in its emission inventories and plans for achieving attainment of air quality standards. Chapter 5 of the *2017 Clean Air Plan* contains the BAAQMD's strategy for achieving the plan's climate and air quality goals. This control strategy is the backbone of the *2017 Clean Air Plan*.

The proposed project consists of the construction and use of a new addition to the San Mateo County History Museum. The proposed project would not exceed the level of population or housing foreseen in city or regional planning efforts; therefore, it would not have the potential to substantially affect housing, employment, and population projections within the region, which are the basis of the *Clean Air Plan* projections. The control measures in the *Clean Air Plan* do not apply to the proposed project and, therefore, the proposed project would not conflict with the *Clean Air Plan*. Furthermore, as described under b), below, the increase in regional emissions generated by the proposed Project would be less than the BAAQMD's emissions thresholds. No impact would occur.

Source:

BAAQMD 2017. *2017 Clean Air Plan: Spare the Air, Cool the Climate*. BAAQMD, Planning, Rules, and Research Division. April 19, 2017.

3.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?		X		

Discussion: The proposed project would generate both short-term construction emissions and long-term operational emissions through increased visitor use. As described in more detail below, the proposed project would not generate short-term or long-term emissions that exceed BAAQMD-recommended criteria air pollutant thresholds after the implementation of Mitigation Measure AIR-1.

The proposed project is located within the San Francisco Bay Area Air Basin (Basin), where efforts to attain state and federal air quality standards are governed by the BAAQMD. Both the State of California and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants (known as criteria pollutants). These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), inhalable particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$), and lead (Pb). The state has also established AAQS for additional pollutants. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. Where the state and federal standards differ, California AAQS (CAAQS) are more stringent than the national AAQS (NAAQS). The U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and BAAQMD assess the air quality of an area by measuring and

monitoring the amount of pollutants in the ambient air and comparing pollutant levels against NAAQS and CAAQS. Based on these comparisons, regions are classified into one of the following categories:

- **Attainment.** A region is "in attainment" if monitoring shows ambient concentrations of a specific pollutant are less than or equal to NAAQS or CAAQS. In addition, an area that has been re-designated from nonattainment to attainment is classified as a "maintenance area" for 10 years to ensure that the air quality improvements are sustained.
- **Nonattainment.** If the NAAQS or CAAQS are exceeded for a pollutant, the region is designated as nonattainment for that pollutant. It is important to note that some NAAQS and CAAQS require multiple exceedances of the standard for a region to be classified as nonattainment. Federal and state laws require nonattainment areas to develop strategies, plans, and control measures to reduce pollutant concentrations to levels that meet, or attain, standards.
- **Unclassified.** An area is unclassified if the ambient air monitoring data are incomplete and do not support a designation of attainment or nonattainment.

Air pollution levels are measured at monitoring stations located throughout the Basin. Table 2 summarizes the Basin's attainment status for the CAAQS and NAAQS.

Table 2: San Francisco Bay Area Air Basin Attainment Status

Pollutant	Averaging Time	Attainment Status[(A)]	
		CAAQS	NAAQS
O_3	1-Hour	N	--
	8-Hour	N	**N**
PM_{10}	24-Hour	N	U
	Annual Average	N	--
$PM_{2.5}$	24-Hour	--	**N**
	Annual Average	N	U/A
CO	1-Hour	A	A
	8-Hour	A	A
NO_2	1-Hour	A	U[(G)]
	Annual Average	--	A
SO_2	1-Hour	A	U[(H)]
	24-Hour	A	--
Sulfates	24-Hour	A	--
Lead	1-Hour	U	--
Visibility Reducing Particles	24-Hour	--	--

Source: BAAQMD 2017a.
(A) A= Attainment, N= Nonattainment, U=Unclassified.

The proposed project would generate both short-term construction emissions and long-term operational emissions. The project's potential emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2.

Construction Emissions

The proposed project involves the development of a 3-story, approximately 14,000 square foot museum expansion. As described in the project description, construction activities are anticipated to last approximately 15 months; utility improvement would take approximately three months, demolition and site preparation would take approximately one week; grading would take approximately two weeks; and building construction (substructure, superstructure, and finishing) would take approximately 11 months. Construction emissions would be generated on-site during the use of heavy-duty, off-road construction equipment (e.g., backhoes, loaders, crane, etc.) and off-site during worker, vendor, and hauling trips.

The project's potential construction emissions were estimated using CalEEMod based on the construction schedule and equipment provided by the County and are presented in Table 3 (see Appendix A for emission calculations).

Table 3: Estimated Project Construction Criteria Air Pollutant Emissions

Year / Scenario	Pollutant Emissions (Tons per Year)						
	ROG	NOx	CO	PM10		PM2.5	
				Dust(A)	Exhaust	Dust(A)	Exhaust
2020	0.03	0.28	0.21	<0.00(B)	0.02	<0.00(B)	0.02
2021	0.17	0.98	0.62	0.01	0.04	<0.00(B)	0.04
Year / Scenario	**Pollutant Emissions (Average Pounds per Day)(C)**						
	ROG	NOx	CO	PM10		PM2.5	
				Dust(A)	Exhaust	Dust(A)	Exhaust
2020	0.69	6.36	4.74	0.04	0.40	0.01	0.36
2021	1.26	7.43	4.66	0.05	0.31	0.01	0.28
BAAQMD CEQA Threshold	**54**	**54**	**--**	**BMPs**	**82**	**BMPs**	**82**
Potentially Significant Impact?	**No**	**No**	**No**	**Yes**	**No**	**Yes**	**No**

BAAQMD 2017b and MIG 2020. See Appendix A.

(A) For all projects, the BAAQMD recommends implementing eight basic construction best management practices (BMPs) to control fugitive dust from construction activities.

(B) <0.00 does not mean emissions are zero; rather, it means emissions are greater than zero, but less than 0.005.

(C) Average daily emissions for 2020 and 2021 assume 88 and 264 total active construction days, respectively, in the given calendar year (22 construction days per month; four months in 2020 and 12 months in 2021).

As shown in Table 3, construction emissions associated with the proposed project would be below all BAAQMD significance thresholds for criteria air pollutant emissions; however, as indicated in the BAAQMD's *CEQA Guidelines*, fugitive dust emissions are considered potentially significant, regardless of the quantity of PM10 or PM2.5 emitted unless the BAAQMD's eight, recommended fugitive dust BMPs are implemented during construction activities (BAAQMD 2017c, pg. 8-4). Accordingly, Mitigation Measure AIR-1, is presented below, to reduce fugitive dust emissions from the proposed project's construction activities.

Impact AIR-1: Project construction could result in significant dust emissions.

> **Mitigation Measure AIR-1:** To reduce fugitive dust that would be generated during project construction activities, the County and/or its designated contractors, contractor's representatives, or other appropriate personnel to implement the following BAAQMD basic dust control measures.

- Water all exposed surfaces (e.g., staging areas, soil piles, graded areas, and unpaved access roads) two times per day during construction and adequately wet demolition surfaces to limit visible dust emissions.
- Cover all haul trucks transporting soil, sand, or other loose materials off the project site.
- Use wet power vacuum street sweepers at least once per day to remove all visible mud or dirt track-out onto adjacent public roads (dry power sweeping is prohibited) during construction of the proposed project.
- Vehicle speeds on unpaved roads/areas shall not exceed 15 miles per hour.
- Complete all areas to be paved as soon as possible and lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time of diesel-powered construction equipment to five minutes and post signs reminding workers of this idling restriction at access points and equipment staging areas during construction of the proposed project
- Maintain and properly tune all construction equipment in accordance with manufacturer's specifications and have a CARB-certified visible emissions evaluator check equipment prior to use at the site.
- Post a publicly visible sign with the name and telephone number of the construction contractor and County staff person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The publicly visible sign shall also include the contact phone number for the Bay Area Air Quality Management District to ensure compliance with applicable regulations.

Effectiveness: These measures would minimize and/or avoid local impacts from fugitive dust.

Implementation: The County shall ensure the San Mateo County History Association includes these measures on all appropriate bid, contract, and engineering and site plan (e.g., building, grading, and improvement plans) documents.

Timing: During construction activities.

Monitoring: The County shall review all appropriate bid, contract, and engineering and site plan documents for inclusion of dust control measures.

After the implementation of Mitigation Measure AIR-1, the proposed project's construction criteria air pollutant emissions would be less than significant.

Operational Emissions

Upon completion of construction activities, the proposed project would function as an expansion of the San Mateo County History Museum and additional event space. Operation of this facility would generate emission of regulated air pollutants from:

- **"Area" Sources.** The proposed land use would generate emissions from small area sources, including the use of consumer products (e.g., paints, cleaners) that result in the evaporation of chemicals into the atmosphere during product use.
- **Energy Use and Consumption.** The proposed facility would generate emissions from the combustion of natural gas in water and space heating equipment.
- **Mobile Sources.** The proposed facility would generate emissions from an increase in visitors (vehicles) traveling to and from the project site.

The proposed project's operational emissions were estimated using CalEEMod (see Appendix B). The operational emissions generated in CalEEMod are based on the project's first full year of

operation (presumed to be 2022) using default data assumption provided by CalEEMod, with the following project-specific modification:

- The default weekday and weekend trip generation rates for the project were replaced with the trip generation rates contained in the Traffic Study prepared for the project (Hexagon 2020). Based on a weighted average of typical weekday operations, weekday with evening special events, and weekday with daytime special events, it was determined that the proposed facility, on average, would generate approximately 46 trips per day.

The proposed project's estimated operational emissions are presented in Table 4.

Table 4: Estimated Project Operational Criteria Air Pollutant Emissions

Source	Pollutant Emissions (Average Pounds per Day)				
	ROG	**NOx**	**CO**	**PM10**	**PM2.5**
Area Sources	0.34	0.00	<0.00(A)	0.00	0.00
Energy Demand	0.01	0.07	0.06	0.01	0.01
Mobile Sources	0.04	0.12	0.42	0.13	0.03
TOTAL	**0.39**	**0.19**	**0.48**	**0.13**	**0.04**
BAAQMD CEQA Threshold(B)	**54**	**54**	**--**	**82**	**54**
Potentially Significant Impact?	**No**	**No**	**No**	**No**	**No**

BAAQMD 2017b and MIG 2020. See Appendix A.
(A) <0.00 does not mean emissions are zero; rather, it means emissions are greater than zero, but less than 0.005.
(B) Totals may not equal due to rounding.

As shown in Table 4, operational criteria air pollutant emissions associated with the proposed project would be well below the BAAQMD regional thresholds. Therefore, operation of the proposed project would not generate operational-related emissions that exceed BAAQMD thresholds, and impacts would be less than significant.

Conclusion

As discussed above, the proposed project would not result in construction or operational emissions of criteria air pollutants that exceed BAAQMD thresholds of significance. In developing its CEQA significance thresholds, the BAAQMD considered the emission levels at which a project's individual emissions would be cumulatively considerable. The BAAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant. Since the proposed project would not individually exceed any BAAQMD CEQA significance thresholds with application of Mitigation Measure AIR-1, the cumulative air quality impact would be less than significant with mitigation incorporated.

Sources:

Bay Area Air Quality Management District (BAAQMD). 2017a. "Air Quality Standards and Attainment Status". BAAQMD, Research & Data, Air Quality Standards & Attainment Status. January 5, 2017. Accessed on April 30, 2020 at http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.

BAAQMD. 2017b. *California Environmental Quality Act Air Quality Guidelines*. San Francisco, CA. June 2010, updated May 2017.

Hexagon Transportation Consultants, Inc. (Hexagon). 2020. *Traffic Analysis for the Proposed San Mateo County History Museum Expansion in Redwood City, California*. April 8, 2020.

3.c. Expose sensitive receptors to substantial pollutant concentrations, as defined by the Bay Area Air Quality Management District?				X

Discussion: Some populations are more susceptible to the effects of air pollution than the population at large; these populations are defined as sensitive air quality receptors. Sensitive receptors include children, the elderly, the sick, and the athletic. Land uses associated with sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The sensitive air quality receptors adjacent or in close proximity to the perimeter of the project include single-family homes at 605 and 611 Middlefield Road, approximately 300 feet north of the project site.

In addition to criteria air pollutants such as NOx (an ozone precursor), CO, PM_{10}, and $PM_{2.5}$, the U.S. EPA and CARB have classified certain pollutants as hazardous air pollutants (HAPs) and toxic air contaminants (TACs), respectively. These pollutants can cause severe health effects at very low concentrations, and many are suspected or confirmed carcinogens. The U.S. EPA has identified 187 HAPs, including such substances as arsenic and chlorine; CARB considers all U.S. EPA designated HAPS, as well as diesel particulate matter (DPM) emissions from diesel-fueled engines and other substances, to be a TAC.

During project construction, the heavy-duty, diesel-powered, off-road construction equipment, as well as diesel-powered vendor and haul tucks, would emit DPM as part of their exhaust emissions; however, these emissions would not result in pollutant concentrations that could generate substantial adverse health risks to adjacent sensitive receptors for a couple of reasons. First, as shown in Table 3, the proposed project's emissions would be well below all BAAQMD construction emissions thresholds. Second, the prevailing daytime wind direction at the nearest airport, the San Carlos Airport, is from the west/northwest (CARB 2015). Wind conditions at this location are considered to be representative of wind conditions at the project site, meaning that DPM emissions generated from construction equipment would generally be pushed to the east/southeast away from sensitive receptors.

The proposed project consists of short-term construction activities. Emission sources would be temporary, intermittent, and move throughout the approximately 0.17-acre (7,446 sf) site, and pollutants would disperse downwind of sensitive receptor locations. No impact would occur.

Source:

California Air Resources Board (CARB). 2015. "Meteorological Files." San Carlos Airport. CARB. Accessed November 30, 2017. <https://www.arb.ca.gov/toxics/harp/metfiles2.htm?>

3.d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				X

Discussion: Construction of the project would generate typical odors associated with construction activities, such fuel and oil odors, asphalt paving odors and painting/coating odors. The odors generated by the project would be intermittent and localized in nature and would disperse quickly.

The project would not generate odors during operation. Therefore, the project would not create objectionable odors affecting a substantial number of people. No impact would occur.

Source:

Bay Area Air Quality Management District (BAAQMD). 2017a. "Air Quality Standards and Attainment Status". BAAQMD, Research & Data, Air Quality Standards & Attainment Status. January 5, 2017. Accessed on April 30, 2020 at http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.

4. BIOLOGICAL RESOURCES. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
4.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 Wildlife or U.S. Fish and Wildlife Service or National Marine Fisheries Service?		X		

Discussion: The project area is developed and the project site is currently a paved parking lot. No special-status plants, fish, amphibians, birds, or reptiles are anticipated to occur within or in the vicinity of the project area; therefore, no impacts would occur to these species.

Nesting Birds and Bats

Nesting birds, including raptors, protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code are potentially present in the landscaping street trees in the project area. If tree removal/trimming activities occur during the avian breeding season (generally February 1 to August 31), injury to individuals or nest abandonment could occur. In addition, noise and increased construction activity could temporarily disturb nesting or foraging activities, potentially resulting in the abandonment of nest sites. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the California Department of Fish & Wildlife (CDFW). With the implementation of Mitigation Measure BIO-1a and BIO-1b, the impacts from the project would be less than significant.

Sections 4150-4155 of the California Fish and Game Code protects non-game mammals, including bats. Section 4150 states "A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A non-game mammal may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission". Bats are classified as a non-game mammal and are protected under California Fish and Game Code.

Bats, including pallid bat and more common bat species, could potentially roost in the leaves, bark, or cavities of the trees adjacent to or within the project area or the buildings in the project area. Direct impacts to bats could occur if construction activities result in the disruption or abandonment of

nearby active bat roosts. Impacts to bat foraging and movement are anticipated to be minimal. With the implementation of Mitigation Measure BIO-2, the impacts from the project would be less than significant.

MITIGATION MEASURES

Impact BIO-1: Project construction activities during the nesting season could result in nest abandonment if nesting is present in nearby landscaped trees, which would have an adverse impact on bird species and could violate state and federal laws.

Mitigation Measure BIO-1a: *Nesting Bird Survey*. To avoid impacts to nesting birds and violation of state and federal laws pertaining to birds, all construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, vegetation removal, fence installation, demolition, and grading) should occur outside the avian nesting season (generally prior to February 1 or after August 31). If construction and construction noise occurs within the avian nesting season (from February 1 to August 31 or according to local requirements), all suitable habitats located within the project's area of disturbance including staging and storage areas plus a 250-foot buffer (passerines), 500-foot buffer (small raptors, such as accipiters), and 1,000foot buffer (large raptors, such as buteos) around these areas shall be thoroughly surveyed, as feasible, for the presence of active nests by a qualified biologist no more than five days before commencement of any site disturbance activities and equipment mobilization. The bird survey buffer radius may be modified in consultation with CDFW. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. Active nesting is present if a bird is sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys shall be documented. If it is determined that birds are actively nesting within the survey area, Mitigation Measure BIO-1b shall apply. Conversely, if the survey area is found to be absent of nesting birds, Mitigation Measure BIO-1b shall not be required.

Mitigation Measure BIO-1b: If pre-construction nesting bird surveys result in the location of active nests, no site disturbance or mobilization of heavy equipment (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, fence installation, demolition, and grading), shall take place within 250 feet of non-raptor nests, 500-feet of small raptor nests, and 1,000 feet of large raptor nests, or as determined by a qualified biologist in consultation with CDFW, until the chicks have fledged. Monitoring shall be required to ensure compliance with the MBTA and relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

Effectiveness:	These measures would minimize impacts on bird species.
Implementation:	San Mateo County or its Contractor.
Timing:	February 1 through August 31, no more than five days in advance of the start of project construction.
Monitoring:	The biologist shall prepare a written record of survey results and implementation of any avoidance/minimization measures to be kept on file at the San Mateo County Planning Department. The biologist shall monitor any active nests to determine when young have matured sufficiently to have fledged.

Impact BIO-2: Tree removal and/or demolition could result in the removal or disturbance of bat roost habitat and may result in significant impacts to bat populations if an occupied or perennial (but unoccupied) maternity or colony roost is disturbed or removed.

Mitigation Measure BIO-2: To avoid impacting breeding, roosting, or hibernating bats protected by CDFW, pre-construction surveys of potential bat roost habitat will be performed in all trees and buildings subject to removal or demolition and within a 50-foot buffer for evidence of maternal or

colony bat roosts (e.g., guano accumulation, acoustic, or visual detections) within 48 hours of project disturbance. If an occupied maternity or colony roost is detected or evidence of bat occupancy is found, CDFW will be consulted to determine the appropriate mitigation measures, which may include exclusion prior to removal if the roost cannot be avoided, a buffer zone, seasonal restrictions on construction work, and/or construction noise reduction measures.

Effectiveness: These measures would minimize impacts on bat species.

Implementation: San Mateo County or its Contractor.

Timing: Year-round, no more than 48 hours in advance of the start of project construction.

Monitoring: The biologist shall prepare a written record of survey results and implementation of any avoidance/minimization measures to be kept on file at the San Mateo County Manager's Office, Project Development Unit office. The biologist shall coordinate with CDFW to determine the appropriate mitigation and monitoring if a roost is found.

Source:

San Mateo County. 2018. County Government Center Campus Development Project Draft EIR. San Mateo County Manager's Office, Project Development Unit. January.

4.b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service or National Marine Fisheries Service?				X

Discussion: No sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW are present at the project site. The project site is in downtown Redwood City in an urban environment. There would be no impact to these sensitive natural communities.

Source:

San Mateo County. 2018. County Government Center Campus Development Project Draft EIR. San Mateo County Manager's Office, Project Development Unit. January.

4.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?				X

Discussion: The project is located in downtown Redwood City in an urban environment. The project does not involve direct removal, filling, hydrological interruption, or other impacts to state or federally protected wetlands. The project would not impact wetlands.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

4.d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X

Discussion: The project is located in downtown Redwood City and no habitat is present on site to support fish, or wildlife corridors, or nursery sites. The project site is located within a human-altered, urban landscape that contains large amounts of paved surfaces and associated landscaped habitats. Due to the urban nature of the project site and lack of riparian corridors, waterways, and other suitable habitat for wildlife species within the project site or vicinity, the site is not part of a regional wildlife movement corridor. Therefore, the project would have no impact on native wildlife movement.

Source:

San Mateo County. 2018. County Government Center Campus Development Project Draft EIR. San Mateo County Manager's Office, Project Development Unit. January.

4.e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)?				X

Discussion: The San Mateo County Significant Tree Ordinance and Heritage Tree Ordinance were adopted by the County with the intent of recognizing that trees and tree communities in San Mateo County are a valuable and distinctive natural resource. A "significant tree" is any live woody plant rising above the ground with a single stem or trunk of a circumference of 38 inches or more measured at four and one-half feet vertically above the ground or immediately below the lowest branch, whichever is lower. This is equivalent to a tree of 12 inches in diameter. Heritage trees are a specific list of tree species each with a qualifying size. Both tree protection ordinances apply to cutting of trees in unincorporated areas of the County.

The project site does not contain any significant or heritage trees. Therefore, the project would not impact protected trees.

Source:

San Mateo County. 2018. County Government Center Campus Development Project Draft EIR. San Mateo County Manager's Office, Project Development Unit. January.

4.f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?				X

Discussion: The project is not within the study area of any approved or anticipated habitat conservation plans or natural community conservation plans.

Source:

San Mateo County. 2018. County Government Center Campus Development Project Draft EIR. San Mateo County Manager's Office, Project Development Unit. January.

4.g.	Be located inside or within 200 feet of a marine or wildlife reserve?				X

Discussion: The project site is not located inside or within 200 feet of a marine or wildlife reserve. The closest marine or wildlife preservation to the project site is the Don Edwards San Francisco Bay National Wildlife Refuge, which is located approximately 0.7-miles from the project site. Therefore, no impact would occur.

Source:

Google Earth Pro. 2020. Accessed on April 10, 2020

San Mateo County. 2018. County Government Center Campus Development Project Draft EIR. San Mateo County Manager's Office, Project Development Unit. January.

4.h.	Result in loss of oak woodlands or other non-timber woodlands?				X

Discussion: The project site is located entirely within a human-altered landscape that contains large amounts of paved surfaces and associated landscaped habitats. There are no woodlands present at the project site. Therefore, no impact would occur.

Source:

San Mateo County. 2018. County Government Center Campus Development Project Draft EIR. San Mateo County Manager's Office, Project Development Unit. January.

5. CULTURAL RESOURCES. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
5.a.	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?		X		

Discussion: The project site is situated on a parcel containing two buildings; the San Mateo County History Museum, which includes a later two-story annex constructed at the back of the History Museum, and the Lathrop House. The history museum building and the Lathrop House are both listed on the National Register of Historic Places (NRHP). The annex does not meet criteria for inclusion on the NRHP nor the California Register of Historical Resources (CRHR). It has previously been defined as a non-contributing feature of the history museum building. The following information is primarily derived from a project specific Historical Resource Report prepared by JRP Historical Consulting, LLC (JRP) in April 2020. The report is included in this document as Appendix C.

San Mateo County History Museum Historic Background. The building now housing the San Mateo County History Museum was originally constructed in 1903 as the San Mateo County Courthouse, replacing previous courthouses. It was substantially damaged in the 1906 earthquake, and only the central section containing the dome, and the foundations remained. It was rebuilt between 1907 and 1910. In 1939, the County constructed a large, three-story building directly in front of the Courthouse known as the Fiscal Building that completely obscured the front elevation of the Courthouse from Broadway, and construction of a passageway between the two buildings altered the colonnaded main entrance of the Courthouse. Two years later, in 1941, the two-story Annex addition was built on the rear elevation of the Courthouse, spanning the entire width of the building. Damage to the Courthouse from the 1989 Loma Prieta earthquake resulted in the building being declared unsafe to occupy and was vacated. In 1998, following seismic retrofitting, the San Mateo County History Museum moved into the building. In 2005, the The City of Redwood City demolished the Fiscal Building, restored the main entrance, and constructed the current plaza and pavilions facing Broadway.

In 1976, Dorothy F. Regnery prepared a NRHP Nomination form for the San Mateo County Courthouse, which was accepted by the Keeper of the National Register and listed in the NRHP on December 13, 1977. It was found to be historically significant at the local level under Criterion C as an important example of the Roman-Renaissance architectural style. The period of significance is given on the form as 1907-1910, the period of the building's reconstruction after the 1906 earthquake. The form does not explicitly define the boundaries of the historic property, but it is assumed to be the footprint of the building as completed in 1910. The character-defining features of the historic property are also not explicitly identified, but information presented in the form clearly implies that these features are limited to those physical elements of the building that express its architectural significance and Roman-Renaissance style and date to the period of significance. See Appendix C for a detailed description of the Roman-Renaissance style features.

Lathrop House Historic Background. The Lathrop House was constructed by Benjamin Lathrop in 1863 on Broadway (formerly A Street) across the street from the current Museum. It was the only building on its block at the time. In the 1890s, a public school joined the residence on the block and in 1905, the Lathrop House was moved about one-and-a-half blocks north to 627 Hamilton Street (formerly 3rd Street) to a parcel mid-block between present-day Marshall Street and Bradford Street, at the time, a block containing several other residences. The Lathrop House occupied this parcel until 2019 when construction of a new San Mateo County administration building proposed for the site prompted moving the Lathrop House one-half block south to its present site at the corner of Hamilton Street and Marshall Street, behind the Museum. The west elevation (front) of the Lathrop House currently faces onto Hamilton Street, its north elevation facing Marshall Street, east elevation (rear) onto a small parking lot and the site of the proposed carriage house, and its south (side) elevation is about 10 feet away at its closest point from the rear, northwest corner of the Museum.

Photo 1: View of Lathrop House looking southeast from the intersection of Marshall Street and Hamilton Street

Photo 2: View of the rear of Lathrop House, looking west from the location site of the proposed addition.

In 1972, Henry P. Tarratt prepared a NRHP Nomination form for the Lathrop House, which was accepted by the Keeper of the National Register and listed in the NRHP on April 11, 1973. It was found to be historically significant at the local level under Criterion C as an important example of a Gothic Revival style residence. The period of significance is given on the form as "nineteenth century." The form does not explicitly define the boundaries of the historic property, but it is assumed to be the footprint of the building. The character-defining features of the historic property are also not explicitly identified, but information presented in the form clearly implies that these features are limited to those physical elements of the building that express its architectural significance and Gothic Revival style and date to the building's nineteenth century period of significance. The form does not mention any aspects of the Lathrop House setting, landscaping, or immediate surroundings that contribute to its significance.

Project Impacts. The analysis of project impacts under CEQA is related to the effect of a proposed project on the integrity of a historical resource and its ability to convey its significance. CEQA Guidelines Section 15064.5(b) state that "a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Relevant sections of the CEQA guidelines outlining a framework for analyzing the impacts of the proposed project include the following:

- Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired [Section 15064.5(b)(1)].
- The significance of an historical resource is materially impaired when a project:
    - Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources [Section 15064.5(b)(2)(A)].

The proposed project has the potential to impact two historical resources under CEQA: The History Museum and the Lathrop House.

San Mateo County History Museum Historic Impacts. As described in the JRP Historical Consulting report, the proposed project would not constitute a substantial adverse change to the History Museum (see Appendix C). The History Museum derives its historical significance from its architecture features that define it as an example of the Roman-Renaissance style. These features are exhibited on the primary façade (south elevation), both sides (east and west elevations), and the interior. Features of the Roman-Renaissance style are not exhibited in the architecture of the 1941 rear Annex addition, which, as stated above, is a non-contributing feature of the historical resource.

The listing of the History Museum in the NRHP in 1977 occurred after the rear addition had been constructed, and at a time when the Fiscal Building, a large, three-story building spanning the full width of the block, existed immediately in front of the History Museum, the two buildings separated by about 25 feet. At the time of the NRHP listing, the main entrance on the primary façade of the Museum had also been altered by the construction of a passageway connecting the rear of the Fiscal Building with the front of the Museum. However, even under these conditions the History Museum was determined to have sufficient historic integrity to be listed in the NRHP. As noted in the 1976 NRHP Nomination, "Even in the present form with the additions of dissimilarly styled annexes, the architectural character of the original building has been retained." The integrity of the History Museum has since increased following the 2005 demolition of the Fiscal Building and restoration of the altered main entrance.

The proposed Carriage House addition would be built onto the rear, northeast corner of the building, attaching to the 1941 Annex addition. This would be a material alteration to the museum, although

the project would not alter any physical part of the original History Museum building, or any feature described in the 1977 NRHP Nomination form. The Carriage House addition would be on the low-visibility rear elevation adjoining the Annex. The most profound and visible expression of the Museum's architectural significance is its primary façade, which offers all of its exterior character-defining features when viewed from the Courthouse Square plaza. The Carriage House addition would be lower in height than the original Courthouse building, and thus, from the vantage point of the plaza would not be visible. The construction of the Carriage House addition at the rear corner of the 1941 Annex addition would not diminish the integrity of the History Museum to a level less than it possessed in 1977 when the Courthouse building was obscured by the Fiscal Building.

The Carriage House addition would not, therefore, diminish the historic integrity or inhibit in any way the building's ability to express the Roman-Renaissance style to such an extent that the History Museum would no longer be able to convey its historic significance. Thus, the project would not constitute a substantial adverse change to the History Museum building as defined by CEQA. There would be a less than significant impact to the San Mateo County History Museum.

Lathrop House Historic Impacts. The proposed project would not constitute a substantial adverse change to the Lathrop House. The building derives its historical significance from its Gothic Revival architectural style. At the time of the Lathrop House NRHP nomination in 1972, the physical characteristics of the house appear to be essentially identical to their present condition. Although moved from the 1972 site to its current location in 2019, the settings of the two locations are similar.

Similar to the previous project to relocate the Lathrop House, the proposed carriage house project also presents a change in setting. Currently, the side (south elevation) of the Lathrop House is about 10 feet away from the two-story Annex addition of the History Museum at its closest point, and a parking lot is behind the building. The Carriage House addition would be about 29 feet from the Lathrop House and slightly taller. In addition to the construction of the carriage house, other aspects of the project include installing a 29-foot by 42-foot brick paver courtyard with planter boxes between the rear of the house and the carriage house in an area that is currently a parking lot, construction of a stucco-clad or painted concrete block trash enclosure with metal gate that will be seven feet, two inches away from the house, and a six-foot-tall metal picket fence at the sidewalk edge along the rear portion of the Marshall Street side of the house.

In assessing the impacts related to setting, it is appropriate to consider the 2017 analysis for the Lathrop House relocation project. The 2017 findings that received National Park Service / NRHP concurrence determined that setting holds virtually no bearing on the historical significance and NRHP status of the Lathrop House, and thus, as a historical resource under CEQA. Thus, the carriage house project, while altering the setting, would not affect the ability of the Lathrop House to convey its historical significance, which is based on the architecture as constituted in the physical elements of the building and does not include setting or landscape architecture elements.

Project plans call for one physical alteration to the Lathrop House: the removal of a back-door stairway. This is a simple and austere four-step wood stairway with a cylindrical metal railing of the same design as the front stairway. It is unclear if this stairway was on the house when it was listed in the NRHP in 1973, but a backdoor stairway of some type was on the building just prior to its move in 2019. However, historic Sanborn maps from the nineteenth century, the period of significance for the Lathrop House, do not show a back stairway, rather, an outhouse is attached to the residence at the location of the current back stairway. Therefore, the stairway is not a contributing feature of the house and its removal would not constitute a substantial adverse change under CEQA.

Construction of the proposed carriage house would not alter the integrity of materials, workmanship, design, association, feeling, or location of the Lathrop House. It would change the setting, but this would have no impact on the integrity of the Lathrop House as setting has no bearing on the historical significance of the resource. Therefore, the carriage house project would not cause a

substantial adverse change to the Lathrop House under CEQA. There would be a less than significant impact to the Lathrop House.

Protection of Lathrop House During Construction.

Project construction would occur within very close proximity to the Lathrop House. Accidental damage to the Lathrop House could occur during construction if it is not adequately protected. Mitigation measure CUL-1 requires protective fencing to be erected around the Lathrop House during construction. Placement of suitable fencing would protect the house from accidental damage and reduce this impact to less than significant.

Impact CUL-1: The Lathrop House could be accidentally damaged during construction.

Mitigation Measure CUL-1: Prior to the start of project construction, the construction contractor shall place temporary construction fencing around the Lathrop House to protect it from accidental damage from construction equipment or materials. The fencing shall be of suitable strength to provide protection from vehicle damage and placed in a location to prevent damage from occurring.

Effectiveness: The measure would reduce impacts to the Lathrop House to less than significant.

Implementation: San Mateo County History Association and its Contractor.

Timing: Prior to the start of project construction and ongoing throughout construction.

Monitoring: The measure shall be placed on all construction bid documents. Once erected the suitable of the fencing shall be approved by the County.

Source:

Brandi, Richard, 2017a. Lathrop House Receiver Site: San Mateo County Courthouse Square, Conducted for MIG, Inc. 2635 N. First Street, Suite 149, San Jose, CA 95134. November 16, 2017.

Brandi, Richard, 2017b. Review for Potential Impacts on Adjacent Historic Resources. San Mateo County Government Center Campus Development Project. Conducted for MIG, Inc. 2635 N. First Street, Suite 149, San Jose, CA 95134. November 16, 2017.

JRP Historical Consulting, LLC. 2020. Historical Resource Report for the San Mateo County History Museum Carriage House Addition Project. Conducted for MIG, Inc. 2055 Junction Avenue, Suite 205 San Jose, California 95131. April 2020.

5.b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?		X		

Discussion: *Ethnographic Background.* The Ohlone people inhabited the project area prior to invasion by the Spanish in 1769 and were named Costanoans by the Spanish. Ohlones were hunters and gatherers, living in “tribelets” – small independent groups of usually related families occupying a specific territory and speaking the same language or dialect. Each tribelet consisted of one or more permanent villages, with various seasonal temporary encampments located throughout their territory for the gathering of raw material resources, hunting, and fishing. The Ohlone lived in extended family units in domed dwellings constructed from tule, grass, wild alfalfa, and ferns. The subsistence practices included the consumption of plant resources such acorns, buckeyes, and seeds that were supplemented with the hunting of elk, deer, grizzly bears, mountain lions, sea lions,

whales, and waterfowl. The Ohlone practiced controlled burning on an annual basis throughout their territory as a form of land management to ensure plant and animal yields for the coming year (Kroeber 1976, Levy 1976). Remains of the Ohlone culture are evidenced by archaeological sites and artifacts in the city.

Historic Background. The first Europeans to reach the San Francisco area were Spanish explorers in 1769 as part of the Portolá expedition. In 1774, the de Anza expedition had set out to convert the Native American tribes to Christianity, resulting in the establishment of (among others) Mission San Francisco de Asis (Mission Dolores) (founded in 1776) and Mission Santa Clara de Asis (founded in 1777). The El Camino Real (which runs through Redwood City) became a heavily traveled route between Mission Dolores and Mission Santa Clara in addition to other missions along the route. This route led to the establishment of inns and roadhouses to serve travelers along the way. In this historic period, the Ohlone people were subjugated and absorbed into the mission system, which resulted in the loss of their freedom of movement, culture, and customs.

During the Mexican rule of California (1822 through 1848), large tracts of land were issued to private individuals, usually cattle ranchers and hide and tallow traders. What is now Redwood City was part of a land grant, the “Rancho de las Pulgas” (Ranch of the Fleas), owned by the Arguello family of Mexico (San Mateo County 1856). The site was used primarily for cattle grazing. After California became part of the United States in 1848 this land, as well as the rest of the Pulgas Ranch, was sold off in sections to various individuals and commercial interests of the rapidly increasing Anglo population.

Previously, on the same city block, two earlier courthouse buildings were built that are no longer extant. The Grist Mill Courthouse was built in 1858 and partly flattened by an earthquake 10 years later. The building’s second story was removed and in 1882 a second courthouse, the Justice Courthouse, was built in front of the first. In 1903, on the same site, the cornerstone was laid for a grand third courthouse, complete with the stained-glass dome which is extant in the current building. However, the 1906 quake destroyed this building, leaving only the dome and the building’s foundation intact. The current courthouse building was built, incorporating the remaining dome and foundations (Brandi 2017).

Data Searches. MIG had previously conducted a California Historic Resources Information System (CHRIS) search with the Northwest Information Center (NWIC) on June 2, 2017 for the County Government Center Campus Development Project EIR. The project area included the city block currently containing the San Mateo County (SMC) Courthouse, the Lathrop House, and the proposed project location of the Carriage House. The search included a radius of 0.25 miles surrounding the project areas.

The CHRIS search returned 19 results within the search area. 18 of those results were historic period, built-environment structures. One archaeological resource, P-41-000461, was found within the search radius. This resource consists of portions of the historic area archaeological foundations of the American Hotel (1853-1864), American House (1867-1879), Wahl Building (1883-1980), Stone Brick House (1865), Tank House (1867), and the Mezes/Pringle Building (1906), as well as associated features, including filled privies, wells and trash scatters. The site contains architectural and archaeological features dating from between the 1850s, to post 1940 (NWIC 2017).

The Native American Heritage Commission (NAHC) was contacted by MIG on June 7, 2017 for a Sacred Lands File search. The search was completed by the NAHC on June 13, 2017 for the County Government Center Campus Development Project EIR. The NAHC stated that there were negative results in the search area (1/2-mile radius around the project site); however, it was also noted by the NAHC that the area was considered sensitive regarding Tribal Cultural Resources (TCR). Tribal representatives as indicated by the NAHC were contacted by certified mail and by email on June 22, 2017 requesting any additional information they may have regarding the project area. No responses were made by any of the representatives contacted (NAHC 2017). Additional

scoping letters were sent by the County for this project to local tribal representatives, all letters were received via certified mail by all tribes on April 30, 2020. No replies were received by County staff within 30 days.

Project Impacts. The project site is a developed site. Based on a previous boring on the parking lot, located under the current location of the Lathrop House, the asphalt covering the lot is approximately 8" thick. The underlying fill is a uniform Lean Clay, with trace fine-grained sand, medium to high plasticity, light brownish gray, moist, very stiff (Kleinfelder 2017).

The proposed location for the Carriage House addition is currently a parking lot used by the History Museum staff and other County employees. The site is in a historically significant area in downtown Redwood City with a history of development. As mentioned above, two previous courthouse buildings are known to have been built in the vicinity of the proposed project. However, research has not revealed the exact location of the previous courthouse foundations. Therefore, historic foundations may be present beneath the proposed location of the Carriage House addition.

Foundation depths for the Carriage House building are currently unknown. However, the Carriage House building is anticipated to be three stories high. Previous historic archaeological resources could still be present under the surface. Grading for the project is therefore anticipated to extend into and likely below the archaeological horizon.

It is considered that there is a high likelihood of discovery of historic period artifacts during project construction, given the extensive historic development in the downtown area. A historic period archaeological site was discovered in the Spring of 2020 during grading for the County's Parking Structure (PS)2 building to the north of the proposed project. The site has not yet been recorded into the NWIC CHRIS system and no identification number is available at time of writing. The site was not considered eligible for inclusion on the CRHR and did not meet the criteria to be considered a unique archaeological resource under CEQA. However, it demonstrates the potential for archaeological resources to be present.

No known Tribal Cultural Resources (TCRs) are identified within a 0.25-mile radius of the site, however the area is considered sensitive in terms of TCRs by the NAHC. Native American TCRs are more likely to occur at locations on the edge of water. The site is located on alluvial soils that once were on or near the shores of San Francisco Bay. The bay soils have a high potential of preserving artifacts that may be present. Redwood City contains at least 12 known prehistoric archaeological sites (Redwood City 2010). Native soils would therefore have a moderate to high potential of containing Native American sites or artifacts. However, previous development on the site may have destroyed subsurface prehistoric archaeological resources, and there is considered a moderate potential of archaeological discovery for prehistoric resources.

Mitigation Measure CUL-2 (listed below) would be enacted to help protect and safeguard buried archaeological resources. Included in the mitigation measure is compulsory archaeological training for construction crews and the requirement to call an archaeologist if potential archaeological resources are discovered. The project impact to unknown prehistoric or historic cultural resources would be less than significant with mitigation incorporated.

Impact CUL-2: Potential disturbance of unknown prehistoric or historic cultural resources, including human remains, during project construction.

Mitigation Measure CUL-2A: Due to the moderate to high potential of historic and prehistoric archaeological remains existing at the project site, Archaeological Sensitivity shall be carried out prior to ground moving activity by a qualified archaeologist for all construction personnel who will engage in or supervise ground disturbing activities on the site.

Mitigation Measure CUL-2B: In the event that archaeological remains from either a historic or prehistoric period are discovered (or have been suspected to have been discovered) during project construction, all ground disturbing work within a 100' radius buffer of the discovery will cease. An

archaeologist who meets the Secretary of the Interior's Standards for Archaeology will be brought in to assess the discovery before any additional ground disturbing work within the 100' buffer will be allowed to continue. No further ground disturbing work will be allowed to continue until the archaeologist has fully evaluated the find and permits work to continue. Dependent on the evaluation by the archaeologist, archaeological excavation and recordation may be required before construction can continue. Archaeological monitoring will be enacted on the site at the discretion of the archaeologist.

Should the newly discovered artifacts be determined to be Native American in origin, Native American Tribes/Representatives will be contacted and consulted as directed by the NAHC and Native American construction monitoring will be initiated. All Native American artifacts and finds suspected to be Native American in nature are to be considered as significant tribal cultural resources until the County has determined otherwise with the consultation of a qualified archaeologist and local tribal representative(s) as directed by the NAHC.

In the event of an archaeological discovery, the County shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. An archaeological report will be written detailing all archaeological finds and submitted to the County and the Northwest Information Center.

Effectiveness: These measures would minimize impacts to archaeological resources.

Implementation: San Mateo County History Association and its Contractor.

Timing: Prior to the start of project construction and ongoing throughout ground moving activity.

Monitoring: The archaeologist shall, if applicable, prepare a written record of survey results, archaeological discovery, and evaluation methodology to be submitted to the County and the Northwest Information Center. The Native American monitor shall, if applicable, record tribal resources for submittal to the Native American Heritage Commission.

Source:

Kleinfelder, 2017. Geotechnical Investigation Report, County of San Mateo Government Center, Lathrop House Relocation Project, Redwood City, California. Project No.: 20181527.001A. Unpublished report, held on file with MIG and San Mateo County.

Kroeber, A.L. 1976. Handbook of the Indians of California. Dover Publications Inc. New York. (Originally Published 1925)

Levy, Richard, L. 1976. Handbook of North American Indians. Washington: Smithsonian Institution. Washington D.C. (Ed. Robert F. Heizer).

NAHC, 2017. Unpublished letter containing search results from Sacred Lands File search. Kept on file at NAHC and with MIG. Inc.

NWIC, 2017. Report number 16-1960. Unpublished confidential report containing search results from site specific survey. Kept on file at NWIC and with MIG. Inc.

Redwood City, 2010. Redwood City New General Plan Public Draft EIR, 4.5 Cultural Resources. Accessed on April 7, 2020 at: https://www.redwoodcity.org/home/showdocument?id=5027

San Mateo County 1856. Northern portion of rancho plat of 1856, Rancho de las Pulgas, Sheet II. Accessed on April 7, 2020 at: https://upload.wikimedia.org/wikipedia/commons/2/2a/18-RSM-PG009B-PULGAS_RANCHO.jpg

5.c.	Disturb any human remains, including those interred outside of formal cemeteries?			X	

Discussion: The cultural resources searches did not reveal any known burials on the site or in the Study Area. However, previous discoveries of human remains have been found elsewhere in Redwood City (Redwood City 2010), and with the NAHC notation of the area being considered sensitive in nature (NAHC 2017), there is some potential for discovery of human remains. By obeying existing codes and regulations, including the Health and Safety Code Section 7050.5 and Section 8010–8030, which regulates procedures in the event of human remains discovery, and ensures that all California Indian human remains and cultural items be treated with dignity and respect; and Public Resources Code Section 5097.98 which requires the County Coroner be present, to identify if the remains are Native American and, if so, to contact the NAHC who would consult with the County. Project impacts to unknown human remains are considered less than significant.

Source:

NAHC, 2017. Unpublished letter containing search results from Sacred Lands File search. Kept on file at NAHC and with MIG. Inc.

NWIC, 2017. Report number 16-1960. Unpublished confidential report containing search results from site specific survey. Kept on file at NWIC and with MIG. Inc.

Redwood City, 2010. Redwood City New General Plan Public Draft EIR, 4.5 Cultural Resources. Accessed on April 7, 2020 at: https://www.redwoodcity.org/home/showdocument?id=5027

6. ENERGY. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
6.a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	

Discussion: Construction activities associated with the proposed project would require the use of heavy-duty, off-road equipment and construction-related vehicle trips that would combust fuel, primarily diesel and gasoline. Heavy-duty construction equipment would be required to comply with CARB's airborne toxic control measures, which restrict heavy-duty diesel vehicle idling to five minutes. The overall construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. Equipment and fuel would not be used wastefully on the site because of the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for future efficiency gains during construction are limited. Since

petroleum use during construction would be temporary and is needed to conduct development activities, it would not be wasteful or inefficient.

The proposed project consists of developing an infill site with a museum expansion. Locating the proposed structure adjacent to the existing museum would help reduce vehicle trips for museumgoers who want to see the contents of the existing museum, as well as items in the Taube Family Carriage House. Furthermore, as described more in Section 8 Climate Change, the project site is located in the *Plan Bay Area 2040* Redwood City Downtown Priority Development Area (PDA)[1] and is located approximately 0.1 miles from the Redwood Center Transit Center (ABAG/MTC 2017). In addition, due to energy efficiency standards being improved over time, the Carriage House addition would be more energy efficient than other portions of the History Museum. The improvements to energy efficiency are in large part related to updates to the California Green Building Standards Code (2019). The CalEEMod modeling estimated the proposed project would consume approximately 159,751 kWh of electricity and 270,639 k on an annual basis. Although operation of the proposed project would consume energy, it would not be done in a wasteful, inefficient, or unnecessary way. This impact would be less than significant.

Source:

Association of Bay Area Governments / Municipal Transit Commission (ABAG/MTC). 2017. Plan Bay Area 2040. Approved July 26, 2017.

California Green Building Standards Commission (CalGreen). 2019. Section 4.201. Available at: https://up.codes/viewer/california/ca-green-code-2019/chapter/4/residential-mandatory-measures#4.201 (accessed April 28, 2020).

6.b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.				X

Discussion: The project would be consistent with the current Green Building Energy Codes incorporated into the California Building Codes (California Code of Regulations, Title 24, Part 11) and would not interfere with the installation of any renewable energy system. Therefore, the project would be consistent with applicable State and local plans for promoting use of renewable energy and energy efficiency. No impact would occur.

Source:

California Building Standards Commission, 2019. 2019 California Green Building Standards Code. California Code of Regulations, Title 24, Part 11. Accessed July 13, 2020. https://codes.iccsafe.org/content/CAGBSC2019

[1] PDAs are transit-oriented locations envisioned for infill development to help meet statewide greenhouse gas reduction goals.

7. **GEOLOGY AND SOILS**. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
7.a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving the following, or create a situation that results in:				
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? *Note: Refer to Division of Mines and Geology Special Publication 42 and the County Geotechnical Hazards Synthesis Map.*				X
Discussion: The site is not within an Alquist-Priolo zone, there are no known faults that cross the site, and no signs of a fault surface have been observed at the site. The project would not create or exacerbate fault rupture conditions. No impact would occur. **Source:** California Department of Conservation, 2006. California Geological Survey, Earthquake Zones of Required Investigation, Palo Alto Quadrangle. https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/PALO_ALTO_EZRIM.pdf accessed April 7, 2020				
ii. Strong seismic ground shaking?			X	
Discussion: The project site is located in the San Francisco Bay Area, which is considered one of the most seismically active regions in the United States. Significant earthquakes have occurred in this area, and strong to violent ground-shaking in the project area can be expected as a result of a major earthquake on one of the faults in the region. The proposed project foundations and anchoring must be designed and constructed in accordance with the 2019 California Building Code. In addition, the project must adhere to the seismic design parameters and design and construction recommendations of the Geotechnical Investigation which would be prepared prior to inform the building seismic design requirements. The project would not create potential for or exacerbate existing conditions related to seismic ground shaking. Compliance with the California Building Code and the implementation of measures specified by the geotechnical report prepared for the project would ensure the new buildings are safe during seismic events. The project impact related to seismic ground shaking is less than significant.				

Source:

Department of General Services 2019, California Building Code 2019. https://www.dgs.ca.gov/BSC/Codes accessed April 7, 2020.

iii. Seismic-related ground failure, including liquefaction and differential settling?			X	

Discussion: Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands and uniformly graded sands. A previous geotechnical investigation for the current location of the Lathrop House, adjacent to the proposed location of the Carriage House addition, concluded that the site has a moderate potential for liquefaction. Ground settlement due to liquefaction of susceptible soil layers at the project site may vary between zero and two inches across the site (Kleinfelder 20017a).

The project would be designed according to the recommendations contained in the site-specific geotechnical report that addresses the liquefaction hazard. The project would not exacerbate existing conditions related to liquefaction potential at the site. The project impact related to liquefaction is less than significant

Source: Kleinfelder, 2017. Geotechnical Investigation Report, County of San Mateo Government Center, Lathrop House Relocation Project, Redwood City, California. Project No.: 20181527.001A. Unpublished report, held on file with MIG and San Mateo County.

iv. Landslides?				X

Discussion: The project site and surrounding lands are relatively level and there are no landslide areas in or near the project vicinity. The area is not in a seismically induced landslide area as shown using USGS seismic maps. Based on this information, there are no indications that landslide activity would adversely impact the project site or be exacerbated by the project during the design lifetime. No impact would occur.

Source:

California Department of Conservation, 2006. California Geological Survey, Earthquake Zones of Required Investigation, Palo Alto Quadrangle. https://gmw.conservation.ca.gov/SHP/EZRIM/Maps/PALO_ALTO_EZRIM.pdf accessed April 7, 2020.

v. Coastal cliff/bluff instability or erosion? *Note to reader: This question is looking at instability under current conditions. Future, potential instability is looked at in Section 7 (Climate Change).*				X

Discussion: The site is not located on or near the coast, and there are no cliffs or bluffs in the project vicinity. No impact would occur.

Source:

USGS 2018 Palo Alto Quadrangle. United States Geologic Survey, https://store.usgs.gov/map-locator, accessed April 7, 2020.

7.b.	Result in substantial soil erosion or the loss of topsoil?			X	

Discussion: The proposed Carriage House addition would disturb approximately 7,446 sq. ft. of the site (BKF 2020). All 4,670 feet of disturbance would be in existing impervious materials (approximately 8 inches of asphalt) that are underlain by lean clay. No topsoil is present at the site. Thus, the project has only a low potential to affect surface soils that could subsequently be washed off-site. The project would result in minimal grading because of the flat nature of the site; however, due to site constraints, most of this debris and material would be immediately hauled off-site. Best Management Practices would be incorporated into the project to reduce soil erosion at the site, control and treat storm-water runoff, and reduce off-site sedimentation. The implementation of these BMPs would render potential soil erosion impacts resulting from the project a less than significant impact.

Source:

BKF Engineers, 2020. San Mateo County Countywide Water Pollution Prevention Program C.3 and C.6 Development Review Checklist. April 9, 2020.

Kleinfelder, 2017. Geotechnical Investigation Report, County of San Mateo Government Center, Lathrop House Relocation Project, Redwood City, California. Project No.: 20181527.001A. Unpublished report, held on file with MIG and San Mateo County.

7.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, severe erosion, liquefaction or collapse?			X	

Discussion:

Lateral spreading is a potential hazard commonly associated with liquefaction where extensional ground cracking and settlement occur as a response to lateral migration of subsurface liquefiable material. These phenomena typically occur adjacent to exposed soil faces such as slopes and creek channels. Since no slopes or channels are located in the vicinity of the site, and the potential for lateral spreading at the adjacent Lathrop House site was concluded to be low (Kleinfelder 2017a), the potential for lateral spreading at the project site is also considered to be low. Adverse soil conditions would not be exacerbated by the project and would be addressed by compliance with the California Building Code and the implementation of measures specified by the geotechnical report prepared for the project. The project would have a less-than-significant impact related to unstable soils, lateral spreading, landslides, subsidence, collapse, and expansive soils.

Source:

Kleinfelder, 2017. Geotechnical Investigation Report, County of San Mateo Government Center, Lathrop House Relocation Project, Redwood City, California. Project No.: 20181527.001A. Unpublished report, held on file with MIG and San Mateo County.

7.d.	Be located on expansive soil, as defined in Table 18-1-B of Uniform Building Code, creating substantial direct or indirect risks to life or property?			X	

Discussion: The 2017 geotechnical investigation prepared for the adjacent Lathrop House showed that the surficial soils had a high potential for expansion. It concluded that these surficial soils may shrink or swell as a result of soil moisture content changes, and the amounts of shrinking and swelling were expected to be moderate. The recommendation was over-excavating and recompacting the surface soils to provide a uniform surface to provide foundation support across the building footprint. A project specific geotechnical document will be prepared for the project which would include project specific recommendations for addressing expansive soils found on site. By following all recommendations in the project specific geotechnical document, impacts will be less than significant.

Source:

Kleinfelder, 2017. Geotechnical Investigation Report, County of San Mateo Government Center, Lathrop House Relocation Project, Redwood City, California. Project No.: 20181527.001A. Unpublished report, held on file with MIG and San Mateo County.

7.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?				X

Discussion: No septic tanks or alternative wastewater disposal systems are included as part of the project design. The project improvements would connect to the Redwood City's wastewater infrastructure system. No impact would occur.

Source:

San Mateo County Historical Association, 2020. Taube Family Carriage House at San Mateo County History Museum, unpublished site plans kept on file with San Mateo County and MIG.

7.f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Discussion: The project site is in a highly developed downtown area of Redwood City. There are no geologic features on the site. Geotechnical documentation prepared for the relocation of Lathrop House, adjacent to the project site did not show any indication of unusual geologic features or conditions that could be indicative of a unique geologic feature in the project vicinity. No impact would occur to unique geologic features.

The project site is situated on Holocene (present day to 11,700 years old) period alluvial clay soils, overlying Franciscan bedrock (Kleinfelder, 2017). Vertebrate fossils are rarely found in Franciscan bedrock, or Holocene period deposits. The soil directly under the asphalt on the project site (to a depth of 10.5 feet) is likely to be a very young Holocene period deposit, likely formed of deposition from San Francisco Bay, in the historic period, which would make fossilized remains in this deposition layer extremely unlikely.

Additionally, no known vertebrate fossils have been discovered on the Palo Alto USGS quadrangle, where the project site is located (Finger 2016). Based on this, there is a very low sensitivity for the

discovery of fossils due to a lack of previous discovery in the area, the rarity of vertebrate (i.e. significant) fossils in the bedrock and soil types, and the likely age of the soils beneath the project site. The project would have a less than significant impact to unique paleontological resources.

Source:

Finger, Kenneth, 2016. University of California Berkeley Museum of Paleontology Record Search, Palo Alto Quadrangle. Personal Communication kept on file with MIG.

Kleinfelder, 2017. Geotechnical Investigation Report, County of San Mateo Government Center, Lathrop House Relocation Project, Redwood City, California. Project No.: 20181527.001A. Unpublished report, held on file with MIG and San Mateo County.

8. CLIMATE CHANGE. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
8.a.	Generate greenhouse gas (GHG) emissions (including methane), either directly or indirectly, that may have a significant impact on the environment?			X	

Discussion: Gases that trap heat in the atmosphere and affect regulation of the Earth's temperature are known as greenhouse gases (GHGs). The six most common GHGs are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Sulfur hexafluoride (SF_6)
- Hydrofluorocarbons (FHCs)
- Perfluorocarbons (PFCs)

GHGs that contribute the climate change are a different type of pollutant than criteria or hazardous air pollutants, as previously discussed in Section 3, Air Quality, because climate change is global in scale, both in terms of causes and effects. Some GHGs are emitted to the atmosphere naturally by biological and geological processes such as evaporation (water vapor), aerobic respiration (carbon dioxide), and off-gassing from low oxygen environments such as swamps or exposed permafrost (methane); however, GHG emissions from human activities such as fuel combustion (e.g., carbon dioxide) and refrigerants use (e.g., hydrofluorocarbons) significantly contribute to overall GHG concentrations in the atmosphere, which affects climate regulation and results a changing climate globally. Examples of the effects of global climate change include rising temperatures, increased severe weather events such as drought and flooding.

GHGs can remain in the atmosphere long after they are emitted. The potential for a GHG to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO_2, which has a GWP of one. By comparison, CH_4 has a GWP of 25, which means that one molecule of CH_4 has 25 times the effect on global warming as one molecule of CO_2. Multiplying the estimated emissions for non-CO_2 GHGs by their GWP determines their carbon dioxide equivalent (CO_2e), which enables a project's combined global warming potential to

be expressed in terms of mass CO_2 emissions. Most often, GHG emissions associated with projects are referred to in terms of metric tons of CO_2e, or $MTCO_2e$.

In 1997, the United Nations' Kyoto Protocol was adopted in Kyoto, Japan, establishing an international treaty that set targets for reductions in emissions of four specific GHGs – CO_2, CH_4, N_2O, and SF_6 – and two groups of gases – HFCs and PFCs. As previously mentioned, these GHGs are the primary GHGs emitted into the atmosphere by human activities.

The State of California has numerous regulations and executive directives aimed at reducing GHG emissions. In 2005, for instance, the governor issued Executive Order S-3-05, establishing statewide GHG emissions reduction targets. Executive Order S-3-05 provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent below 1990 levels (CalEPA 2006). In 2006, the California Global Warming Solutions Act (AB 32) was signed into law. AB 32 codifies the statewide GHG emission reduction targets and required CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline, which was approved in 2008 and updated in 2014.

Executive Order B-30-15, 2030 Carbon Target and Adaptation, issued in April 2015, sets a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. By directing state agencies to take measures consistent with their existing authority to reduce GHG emissions, this order establishes coherence between the 2020 and 2050 GHG reduction goals set by AB 32 and seeks to align California with the scientifically established GHG emissions levels needed to limit global warming below two degrees Celsius.

To reinforce the goals established through Executive Order B-30-15, SB-32 and AB were authorized in 2016. SB-32 made the GHG reduction target to reduce GHG emissions by 40 percent below 1990 levels by 2030 a requirement as opposed to a goal. AB-197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, "protect the state's most impacted and disadvantaged communities …[and] consider the social costs of the emissions of greenhouse gases."

In December, 2017 CARB adopted the second update to the Scoping Plan, the *2017 Climate Change Scoping Plan Update* (*2017 Scoping Plan Update*; CARB 2017). The primary objective of the *2017 Scoping Plan Update* is to identify the measures needed to achieve the mid-term GHG reduction target for 2030 (i.e., reduce emissions by 40 percent below 1990 levels by 2030), as established under Executive Order B-30-15 and SB 32. The *2017 Scoping Plan Update* identifies an increasing need for coordination among state, regional, and local governments to achieve the GHG emissions reductions that can be gained from local land use planning and decisions. It notes emission reduction targets set by more than one hundred local jurisdictions in the state could result in emissions reductions of up to 45 million $MTCO_2e$ and 83 million $MTCO_2e$ by 2020 and 2050, respectively. To achieve these goals, the *2017 Scoping Plan Update* includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons by 2050.

The BAAQMD maintains a 1,100 $MTCO_2e$ operational GHG threshold for non-stationary sources (BAAQMD 2017). The 1,100 $MTCO_2e$ GHG threshold was established by the BAAQMD to align project's GHG emissions with state-wide goals for 2020. Since the proposed project is estimated to become operational in 2021 (i.e., a year after 2020), the 1,100 $MTCO_2e$ threshold is not directly applicable to the proposed project. Instead, an interpolated threshold of 660 $MTCO_2e$ will be used herein this analysis, since it takes the BAAQMD's recommended 2020 threshold and adjusts it

downward for the State's next codified GHG reduction goal for 2030 (i.e., 40% below 1990 levels by 2030; SB 32).[2]

The BAAQMD has not adopted a threshold of significance for construction-related GHG emissions. The BAAQMD's CEQA Air Quality Guidelines do, however, encourage lead agencies to quantify and disclose construction-related GHG emissions, determine the significance of these emissions, and incorporate BMPs to reduce construction-related GHG emissions. Accordingly, construction-related GHG emissions are amortized over the lifetime of the proposed project (presumed to be a minimum of 30 years). This normalizes construction emissions so that they can be grouped with operational emissions and compared to appropriate thresholds, plans, etc.

GHG emissions from construction and operation of the proposed project were estimated using CalEEMod, version 2016.3.2, based on default data assumptions contained in CalEEMod, with the project-specific modifications described in Section 3, as well as the following adjustments to default model assumptions related to GHG emissions:

- **Energy Use and Consumption.** Peninsula Clean Energy (PCE) provides electricity service throughout the County of San Mateo. CalEEMod does not contain GHG intensity values for this electric service provider. As such, the default GHG assumptions regarding energy use were adjusted as follows:
    - The CO_2 GHG intensity factor utilized in the modeling is based on PCE's carbon intensity factor from 2018; 156.52 pounds/megawatt-hour (lbs/MWh) (PCE 2018).
    - Electricity generation emission factors for CH_4 (0.033 lbs/MWh) and N_20 (0.004 lbs/MWh) were obtained from the U.S. EPA's eGRID database for year 2016, the last year for which data was available at the time this Initial Study was prepared (U.S. EPA 2016).
- **Energy Efficiency.** CalEEMod default energy efficiency values for non-residential default light energy intensity value was adjusted downwards by a factor of 0.7 to reflect increased lighting efficiency in the 2019 energy code (CEC 2018).

[2] The 660 MTCO2e/yr goal was developed by taking the 1,100 $MTCO_2e$/yr threshold, which was the threshold to reduce emissions back to 1990 level and reducing it by 40 percent (1,100 $MTCO_2e$/yr * (1 - 0.4) = 660 $MTCO_2e$/yr). This demonstrates the progress required under SB 32. This linear reduction approach oversimplifies the threshold development process. The County is not adopting nor proposing to use 660 $MTCO_2e$ as a CEQA GHG threshold for general use; rather, it is only intended for use on this project.

The project's estimate construction and operational GHG emissions are presented below in Table 5.

Table 5: Project Greenhouse Gas Emissions

Source	GHG Emissions (MT/YR)			
	CO_2	CH_4	N_2O	TOTAL[(A)]
Area	<0.0[(B)]	0.0	0.0	<0.0[(B)]
Energy	25.8	<0.0[(B)]	<0.0[(B)]	26.0
Mobile	22.6	<0.0[(B)]	0.0	22.6
Solid Waste	2.6	0.2	0.0	6.6
Water/Wastewater	2.4	0.1	<0.0[(B)]	5.3
Amortized Construction	*6.0*	<0.0[(B)]	*0.0*	*6.0*
Total[(C)]	*151.1*	*0.3*	*<0.0[(B)]*	*66.5*
BAAQMD 2020 Threshold				*1,100*
Derived 2030 Emissions Goal				660
Exceeds Goal / Threshold				*No*

Source: BAAQMD 2017, MIG 2020 (See Appendix A)

Note:

(A) $MTCO_2e$

(B) <0.0 does not mean emissions are zero; rather, it means emissions are greater than 0.00, but less than 0.05.

(C) Slight variations may occur due to rounding.

As shown in Table 5, development of the proposed project would generate approximately 66.5 $MTCO_2e$, which is well below the BAAQMD 2020 GHG threshold and derived 2030 GHG emissions goal. Therefore, this impact would be less than significant.

Source:

Bay Area Air Quality Management District (BAAQMD). 2017. *California Environmental Quality Act Air Quality Guidelines*. San Francisco, CA. June 2010, updated May 2017.

California Energy Commission (CEC). 2018. *Building Energy Efficiency Standards for Residential and Nonresidential Buildings 2019.* December 2018.

Peninsula Clean Energy (PCE). 2018. *PCE 2018 Integrated Resource Plan Appendix E: PCE GHG Calculator*. August 1, 2018. https://www.peninsulacleanenergy.com/wp-content/uploads/2018/08/GHG-Calculator-for-IRP-v1.4.5-Peninsula-Clean-Energy-Conforming_20180801-1.xlsx

United States Environmental Protection Agency (U.S. EPA). 2016. Emissions & Generation Resources Integrated Database (eGRID). February 2018. https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid

8.b.	Conflict with an applicable plan (including a local climate action plan), policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Discussion: The proposed project would not conflict with CARB's *2017 Scoping Plan*, the Association of Bay Area Government / Metropolitan Transportation Commission (ABAG/MTC) *Plan*

Bay Area 2040, BAAQMD *2017 Clean Air Plan*, San Mateo County Government Operations Climate Action Plan (CAP), or the San Mateo County Municipal Green Building Policy.

CARB 2017 Scoping Plan

The *2017 Climate Change Scoping Plan* is CARB's primary document used to ensure State GHG reduction goals are met. The plan identifies an increasing need for coordination among State, regional, and local governments to achieve the GHG emissions reductions that can be gained from local land use planning decisions. The major elements of the 2017 Climate Change Scoping Plan, which is designed to achieve the State's 2030 GHG reduction goal include:

- Continued implementation of SB 375.
- Implementing and/or increase the standards of the Mobile Source Strategy, which include increasing zero emission vehicle (ZEV) buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewable Portfolio Standard (RPS) to 50 percent and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH_4 and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20 percent reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Nearly all the specific measures identified in the *2017 Climate Change Scoping Plan* would be implemented at the state level, with CARB and/or another state or regional agency having the primary responsibility for achieving required GHG reductions. The proposed project, therefore, would not directly conflict with any of the specific measures identified in the *2017 Climate Change Scoping Plan*.

ABAG/MTC Plan Bay Area 2040

The overarching goal of *Plan Bay Area 2040* is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth in outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, vehicle miles traveled, and associated GHG emissions reductions (ABAG/MTC 2017). The proposed project is located within the Redwood City Downtown Priority Development Area (PDA), is located approximately 0.1 miles from the Redwood City Transit Center, and would add approximately 14,000 square feet of building space to an existing museum, instead of placing it elsewhere. As such, the proposed project supports the goals of *Plan Bay Area 2040* in that it concentrates development where there are existing services and infrastructure and would not conflict with the regional plan.

BAAQMD 2017 Clean Air Plan

The project would not conflict with or obstruct implementation of the BAAQMD's 2017 Clean Air Plan. The *2017 Clean Air Plan* includes GHG emissions from construction and operational GHG emissions sources in its emissions inventories and plans for achieving Clean Air Plan goals. As discussed in Section 3 Air Quality, control measures in the *2017 Clean Air Plan* do not apply to the proposed project. In addition, as described under response a), above, the proposed project would not exceed the BAAQMD's established 1,100 $MTCO_2e$ threshold or the project-specific goal 660

$MTCO_2e$, used to demonstrate progress toward the State's 2030 GHG emission reduction goal. Accordingly, the proposed project would not conflict with the *2017 Clean Air Plan*.

San Mateo County Government Operations CAP

In September 2012, the County of San Mateo, in collaboration with the City/County Association of Governments of San Mateo County, adopted the County of San Mateo Government Operations Climate Action Plan (CAP) (San Mateo County 2012). The CAP identifies a number of strategies to reduce GHG emissions resulting from County operations that include, but are not limited to:

- Installing energy efficient street lighting and traffic signals;
- Purchasing energy efficient products;
- Pursuing renewable energy technology;
- Allowing for and promoting alternative work schedules; and
- Diverting of 75 percent of all solid waste by 2020.

The proposed project would be consistent with the Government Operations CAP, as it would feature energy efficient products (consistent with Part 11 of the 2019 Title 24 Building Code), allow for and promote alternative work schedules (to the extent feasible for museum operations), and divert 75 percent of its solid waste.

San Mateo County Municipal Green Building Policy

On December 5, 2017, the San Mateo County Municipal Green Building Policy became effective. This policy updates the prior County Sustainable Building policy, that was enacted initially in 2001 and was updated in 2014. The 2017 revised policy elevates the County's standards for sustainable building practices beyond LEED certification. Specifically, the policy establishes ambitious energy efficiency targets and sets out to achieve Zero Net Energy[3] for new building construction in order to advance the County's sustainably goals and reduce GHG emissions. The policy stipulates that new construction projects of County-owned buildings over 10,000 square feet are subject to the following requirements:

1) LEED Certification – All County-owned new construction projects over 10,000 square feet shall be at a minimum, LEED certified.
2) Energy Efficiency – All County-owned new construction projects over 10,000 square feet, shall achieve at least 50% of available LEED Energy and Atmosphere points.
3) Zero Net Energy – All County-owned new construction projects over 10,000 square feet shall achieve zero net energy with generation from on-site or adjacent renewable resources with the following exception:

   If a new construction project cannot comply with zero net energy requirements due to site physical limitations or inability to achieve financial feasibility for energy performance and/or renewable energy generation measures, then the project must maximize the amount of energy efficiency and renewable energy generation that meets the financial feasibility requirement.
4) Board Discretion – The San Mateo County Board of Supervisors has discretion to exempt a building project from any of the requirements of this policy. The County Office of Sustainability will oversee the exemption process (County of San Mateo 2017).

[3] The term "Zero Net Energy" means a building where the amount of energy produced by on-site or adjacent renewable energy resources is equal to the amount of electrical and natural gas energy consumed by the building annually. Achievement is based on 12 consecutive months of actual energy performance data.

Source:

Association of Bay Area Governments / Municipal Transit Commission (ABAG/MTC). 2017. Plan Bay Area 2040. Approved July 26, 2017.

Bay Area Air Quality Management District (BAAQMD). 2017. *2017 Clean Air Plan: Spare the Air, Cool the Climate*. BAAQMD, Planning, Rules, and Research Division. April 19, 2017.

California Air Resources Board (CARB). 2017. California's 2017 Climate Change Scoping Plan. Available at: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (accessed October 6, 2019).

County of San Mateo. 2012. *County of San Mateo Government Operations Climate Action Plan*. September 2012. <https://www.smcsustainability.org/download/climate-change/Government-Ops-Climate-Action-Plan.pdf>

County of San Mateo. 2017. "Exhibit I: Municipal Green Building Policy." Accessed May 6, 2020. <http://cmo.smcgov.org/sites/cmo.smcgov.org/files/Exhibit%20I%20-%20%20County%20of%20San%20Mateo%20Green%20Building%20Policy.pdf>

8.c.	Result in the loss of forestland or conversion of forestland to non-forest use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering?				X

Discussion: The project site currently consists of a paved parking lot. The project would not result in loss or conversion of forest land. No impact would occur.

Source:

San Mateo County History Association, 2019. Taube Family Carriage House at the San Mateo County History Museum Site Plans. November 7, 2019.

8.d.	Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?				X

Discussion: The proposed project site is located in a developed area of Redwood City on County-owned and developed land. It is not located near a coastal cliff/bluff. No impact would occur.

Source:

San Mateo County History Association, 2019. Taube Family Carriage House at the San Mateo County History Museum Site Plans. November 7, 2019.

8.e.	Expose people or structures to a significant risk of loss, injury or death involving sea level rise?			X	

Discussion: The proposed project site is approximately 0.5 miles from the San Francisco Bay. The National Oceanographic and Atmospheric Administration's (NOAA's) Sea Level Rise Viewer indicates the project would be inundated after a sea level rise of 1.2 meters (NOAA 2017).

In the *California Building Industry Association v. Bay Area Air Quality Management District* case decided in 2015, the California Supreme Court held that CEQA does not generally require lead

agencies to consider how existing hazards or conditions might impact a project's users or residents, except where the project would significantly exacerbate an existing environmental condition. Accordingly, hazards resulting from a project that places development in areas subject to sea level rise are not considered impacts under CEQA unless the project would significantly exacerbate the sea level rise hazard.

The proposed project would add development to the urban center in Redwood City. The project would not influence sea level rise or exacerbate future flood hazards by increasing the frequency or severity of flooding or causing flooding to occur in an area that would not be subject to flooding without the project. Nor would the project exacerbate sea level rise flooding because it substantially restricts the size of a flood plain. This impact is less than significant.

Source:

National Oceanic and Atmospheric Administration (NOAA). 2017. "Sea Level Rise Viewer." <https://coast.noaa.gov/slr/#/layer/slr/0/-13562577.009250008/4518320.625406186/8/satellite/none/0.8/2050/interHigh/midAccretion>

8.f.	Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X

Discussion: The Federal Management Agency (FEMA) Flood Insurance Rate Map for the project site shows that it is located in Flood Zone X. Areas in Flood Zone X are determined to be outside of the 500-year flood zone and have minimal risk of flooding. The proposed project is not located within an anticipated 100-year flood zone area. No impact would occur.

Source:

National Flood Insurance Program. Flood Insurance Rate Map. San Mateo County California, Panel 301 of 510; Map Number 06081C030E. Effective Date October 16, 2012.

8.g.	Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?				X

Discussion: See response 8.f. the project is not within a 100-year flood hazard area. No impact would occur.

Source:

National Flood Insurance Program. Flood Insurance Rate Map. San Mateo County California, Panel 301 of 510; Map Number 06081C030E. Effective Date October 16, 2012.

9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
9.a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (e.g., pesticides, herbicides, other toxic substances, or radioactive material)?				X

Discussion: The proposed project does not involve ongoing transport, use, or disposal of hazardous materials.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

9.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?			X	

Discussion: The proposed project would construct an addition to the History Museum and would not involve the storage or use of hazardous materials in quantities that could pose a risk to public health. The construction of the project would require the use of hazardous materials (fuels, solvents, paints, etc.) which would be stored and used according to all County, state and federal regulations. Once constructed the building would require routine cleaning and maintenance, which would also require the storage and use of potentially toxic or hazardous cleaning materials. The San Mateo County History Association and its contractors would store and use all chemicals used for cleaning and maintenance according to relevant regulations.

The San Mateo County History Association or its contractor must develop and implement a demolition debris management and disposal plan for the non-Resource Conservation and Recovery Act hazardous materials that are to be removed from the project site per compliance with County waste diversion requirements in San Mateo County Code of Ordinances, Section 4.105.030 (100 percent of inert solids and at least 50 percent of the remaining construction and demolition debris tonnage). The plan must be designed to prevent releases of hazardous materials in quantities that could pose a risk to human health and the environment, as determined using appropriate BAAQMD, RWQCB, DTSC, and/or other appropriate agency screening thresholds.

The plan must identify the receiving qualified landfill and present proof of waste acceptance. The plan must also specify measures to minimize airborne dust during building deconstruction and soil movement to protect construction workers and neighboring residents from exposure to hazardous material emissions. The plan must address protection of worker exposure to airborne lead paint particulates through use of personal protective gear, clear identification of the location of hazardous materials, and removal by properly trained/certified workers, and proper cover and transport of hazardous materials, etc.

Compliance with state and federal requirements and implementation of the debris management and disposal plan would ensure the project has a less-than-significant impact related to the release of hazardous materials. The impact is less than significant.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

9.c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	

Discussion: Emissions associated with combustion engines either during construction or operation of the project could result in the emission of diesel particulate matter, which is considered a toxic air contaminant (TAC) by the BAAQMD. The project site is located within one-quarter mile of several existing schools. Marin Day Schools, located at 403 Winslow Street, adjacent to the proposed parking structure, is a daycare and preschool facility serving approximately 90 children, from infants to five years old. Orion Alternative School, located at 815 Allerton Street, serves students in grades K-5. Sequoia High School, serving students in grades 9-12, is located at 1201 Brewster Avenue, just over 0.25 mile southwest of the History Museum. These air emissions are addressed in the Air Quality Section. Project construction and operations, otherwise, do not involve hazardous emissions or handling of hazardous materials that would pose a risk to a school population. The impact is less than significant.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

9.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?			X	

Discussion: A search of the DTSC's Envirostor and the SWRCB's Geotracker databases revealed that the project site is not associated with cases of previous or existing contamination subject to DTSC or SWRCB oversight. There are several SWRCB sites, mapped near to the project site. These include:

- LSG Properties - 820 Veterans Boulevard leaking underground fuel tank. Cleanup completed - case closed; contaminant of concern: gasoline
- Bradford Street Parcels - 707 Bradford Street, active case – voluntary clean up, Envirostor ID 60000784, contaminant of concern: polynuclear aromatic hydrocarbons in the soil or surface water.
- San Mateo County Motor Pool – 501 Winslow, leaking underground storage tank (LUST) clean-up site, open – assessment and interim remedial action as of 3/20/2017.
- Old Courthouse, San Mateo County – 711 Hamilton, LUST clean-up site, completed – case closed, contaminant of concern: gasoline in soil.

- 660 Jefferson/ Former Circuitron site, voluntary clean up, DTSC certified (closed), SWRCB clean up status is still open, potential contaminants are dichloroethelene, tetrachloroethelene, trichloroethylene, media of concern remain under investigation.

None of these sites are in immediate proximity to the project site; therefore, the project would not be located on a site which is included on a list of hazardous materials sites. The impact is less than significant.

Source:

Department of Toxic Substance Control, 2018. EnviroStor Database. https://www.envirostor.dtsc.ca.gov/public/ accessed April 20, 2020.

9.e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?			X	

Discussion: There are no private airstrips within the vicinity of the project site. San Carlos Airport is a general aviation facility located approximately 1.6 miles northwest of the project site. The project is within the San Mateo County Comprehensive Airport Land Use Compatibility Plan (ALUCP) area, within airport influence Area B (ALUCP, Exhibit 4-7). The ALUCP specifies development compatibility with the San Carlos Airport based on land use type and airspace proximity. The proposed museum addition is located outside Safety Zone 6 (traffic pattern zone) boundary, which extends 8,500 feet southeast of the runway approach (ALUCP, Exhibit 4-3). Uses outside the Zone 6 boundary are compatible with the San Carlos Airport (ALUCP, Table 4-4 Safety Compatibility Criteria).

The ALUCP (Exhibit 4-4 and Exhibit 4-4a) identifies the height of the controlling airspace protection surface for San Carlos Airport per the Federal Aviation Regulation Title 14, Part 77 Imaginary Surfaces Height Restrictions. At the project site location, a building height of 150 to 200 feet requires notification of the Federal Aviation Administration. The proposed maximum building height of the Carriage House addition is three stories (approximately 44 feet) and falls well below this limit; no federal notification is required. The museum addition is surrounded by other existing development that exceed the height of the proposed addition, including the County History Museum itself, which has a height of over 80 at the top of the dome.

Based on the distance of the project from the airport runway, the compatibility of the museum land use, and building heights lower than the controlled airspace protection surface height, the project is consistent with the ALUCP. Therefore, the impact is considered less than significant.

Source:

City/County Association of Governments of San Mateo County, 2015. Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport. October 2015.

9.f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	

Discussion: The project would not affect the availability of adequate emergency access for fire station crews responding to emergencies as all building and project plans would undergo County

review for emergency access. The Carriage House addition would be incorporated into the overall plan for operations at the County History Museum. The impact is less than significant.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

9.g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Discussion: The project is located in the heart of Downtown Redwood City, a heavily urbanized and developed area. The project is an addition to an existing County museum and would not increase the risk of people or structures to risk from injury or death involving wildland fires. The impact is less than significant.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

9.h.	Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X

Discussion: The proposed project does not involve housing and is not proposed within a 100-year flood hazard area. No impact would occur.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

9.i.	Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?				X

Discussion: The proposed project is not within a 100-year flood hazard area. No impact would occur.

Source:

San Mateo County 2018. County Government Center Campus Development Project Draft EIR. San Mateo County Manager's Office, Project Development Unit. January 2018

9.j.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X

Discussion: Lower Emerald Lake is located south of the project area in the City of Redwood City. The northern extent of the Emerald Lake dam failure inundation area subject to flooding in the event

of a catastrophic dam failure is Arguello Street as mapped by San Mateo County (2005). The proposed project is located outside of the dam inundation area. Therefore, there would be no impact to the project as a result of a levee or dam failure.

Source:

San Mateo County 2018. County Government Center Campus Development Project Draft EIR. San Mateo County Manager's Office, Project Development Unit. January 2018

9.k. Inundation by seiche, tsunami, or mudflow?				X

Discussion: The project site is located west of US 101 in downtown Redwood City. The site is well inland and well above any elevation that would be impacted by either a seiche or tsunami according to San Mateo County Hazard maps. Furthermore, the project site is not located in an area subject to mudflow hazards.

Source:

San Mateo County 2018. County Government Center Campus Development Project Draft EIR. San Mateo County Manager's Office, Project Development Unit. January 2018

10. HYDROLOGY AND WATER QUALITY. Would the project:

	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
10.a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash))?				X

Discussion: The project area is within the San Francisco Bay Watershed (Hydrologic Unit Code 18050004) in the San Francisco Bay Hydrologic Region. The project area and surroundings are completely developed. The project site ranges from approximately 8 to 12 feet above mean sea level. There are no streams or other surface water features located on or near the project site. The nearest water feature is Redwood Creek; which is located approximately 0.14 miles from the project area. All stormwater runoff from the site is directed to the Redwood City storm drain system which eventually discharges to the San Francisco Bay.

The project site is subject to the San Mateo Countywide Water Pollution Prevention Program. The proposed project would employ stormwater runoff/management BMPs during the construction phase to control sediment loads entering the storm drain system. The impact on surface and ground water quality is less than significant.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

10.b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X

Discussion: The Carriage House addition would be constructed in a paved parking lot. The project would result in 6,775 square feet (sf) of impervious surface which is a net increase of approximately 1,050 square feet of new impervious surfaces across the 7,446 sf (0.17 acre) site. The project site is considered a "small project" under NPDES requirements because it involves the creation or replacement of less than 10,000 sf of impervious surface. Small projects are required to include at least one site design measure to reduce potential stormwater impacts. The proposed project includes several site design measures including directing roof runoff as well as sidewalk, walkway and patio area run-off onto vegetated areas.

Source control measures are not required for small projects, however, the project includes plumbing interior floor drains to the sanitary sewer, retaining existing vegetation as practicable, selecting diverse plant species appropriate to the site that are pest and disease resistant, drought tolerant, and or attract beneficial insects, minimize the use of pesticides and fertilizers, and use of an efficient irrigation system and landscaping design to minimize runoff, providing a roofed and enclosed area for dumpsters recycling, containers, etc. designed to prevent stormwater run-on and run-off and connecting drains in the refuse area to the sanitary sewer system, as well as designing the discharge of fire sprinkler test water to landscape or the sanitary sewer.

Source:

San Mateo County Historical Association. 2020. C.3 and C.6 Development Review Checklist for Taube Family Carriage House. Submitted by Jonathan Tang of BKF Engineers. April 9.

10.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;				X

Discussion: The project does not involve alteration of a course of a stream or river. The project site where construction would occur is mostly paved and is in a downtown, urban, developed setting. There is very little potential for substantial erosion because the site is mostly paved and the project would add an additional approximately 1,050 sq. ft. of impervious surface that would further reduce the site's potential to be a source of erosion or siltation. The project is required to include at least one site design measure for low impact development. The project includes two low impact site design measures: direct roof runoff to vegetated areas as well as direct runoff from sidewalks, walkways, and or patios onto vegetated areas. Therefore, existing drainage patterns would not be substantially altered through the addition of impervious surfaces that would result in substantial erosion or siltation on or off-site

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

San Mateo County Historical Association. 2020. C.3 and C.6 Development Review Checklist for Taube Family Carriage House. Submitted by Jonathan Tang of BKF Engineers. April 9.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;				X

Discussion: The proposed project would not result in increased surface runoff in a manner which would result in flooding on- or off-site. The project results in a slight increase in impervious surface (approximately 1,050 sf). However, the project includes low impact design measures to reduce stormwater rates and volumes. The current project footprint is not designed with any site design measures to reduce stormwater rates or volume. This increase in impervious surface is not considered significant enough to have an effect on flooding potential either on- or off-site.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

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				x

Discussion: As stated previously, the existing project site is mostly paved. The proposed project would disturb less than 10,000 sf of area and therefore is considered a small project under NPDES C.3 regulations and as such is required to include a minimum of one LID design measure. The project would increase the amount of impervious surfaces at the site by approximately 1,050 sf and includes two low impact design measures: directing roof runoff to vegetated areas as well as directing runoff from sidewalks, walkways, and or patios onto vegetated areas. The proposed trash enclosure is designed to connect enclosure drainage to the sanitary sewer system to avoid generating polluted stormwater runoff. Therefore, the proposed project is not expected to 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.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

iv. Impede or redirect flood flows?				X

Discussion: The project is an addition/expansion of an existing County museum building within a highly developed area of downtown Redwood City. The FEMA Flood Insurance Rate Map for the project site shows that the project site is located in Flood Zone X. Areas in Flood Zone X are determined to be outside of the 500-year flood zone and have minimal risk of flooding. There are no floodplain requirements for Zone X. No impact would occur.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

10.d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X

Discussion: As stated previously, the project is not within a flood hazard area, nor is it within a tsunami or seiche zone. Therefore, there is no risk of releasing pollutants due to project inundation from a flood, tsunami, or seiche.

Source:

San Mateo County. 2020. San Mateo County Planning and Building GIS Map Viewer, FEMA Flood Zones. Accessed on June 8, 2020 at https://gis.smcgov.org/Html5Viewer/Index.html?configBase=https://gis.smcgov.org/Geocortex/Essentials/REST/sites/publicplanning/viewers/HTML52110/virtualdirectory/Resources/Config/Default

10.e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Discussion: The project is within the San Mateo Plain groundwater basin. The project would result in 6,775 sq. ft. of impervious surface which is a net increase of approximately 1,050 sq. ft. of new impervious surfaces across the 7,446 sq. ft. (0.17 acre) site. The Sustainable Groundwater Management Act enacted in September 2014 is the first comprehensive groundwater legislation in California history. The legislation provides a framework for the sustainable management of groundwater basins by local agencies. All nine basins within San Mateo County are designated as Very Low Priority and not required to comply with the Sustainable Groundwater Management Act and there is no applicable Groundwater Basin Management Plan for the project site. Therefore, the project would not conflict with or obstruct implementation of a sustainable groundwater management plan. Construction and operation water quality controls are implemented through the NPDES C.3 regulations as discussed above.

Source:

San Mateo Countywide Water Pollution Prevention Program, 2019. C.3 and C.6 Development Review Checklist for the Taube Family Carriage House.

10.f. Significantly degrade surface or ground-water water quality?			X	

Discussion: The project site where construction would occur is already mostly paved except for landscaping improvements. As noted above, the project includes both construction water quality BMPs as well as LID measures to minimize the impacts of the proposed project. Therefore, overall surface or ground water quality is not expected to significantly degrade. The impact is less than significant.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

San Mateo Countywide Water Pollution Prevention Program, 2019. C.3 and C.6 Development Review Checklist for the Taube Family Carriage House.

10.g. Result in increased impervious surfaces and associated increased runoff?			X	

Discussion: The project site where construction would occur is already mostly paved except for landscaping improvements. As stated above, the project would result in 6,775 sq. ft. of impervious surface which is a net increase of approximately 1,050 sq. ft. of new impervious surfaces and the project includes LID measures to reduce the impacts of the proposed project. Therefore, overall site imperviousness and associated runoff is not expected to increase significantly over existing conditions. The impact is less than significant.

Source: San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

11. LAND USE AND PLANNING. Would the project:

	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
11.a. Physically divide an established community?				X

Discussion: The project would be located at the San Mateo County History Museum within the San Mateo County Government Center, an approximately 22-acre administrative campus owned and managed by San Mateo County in downtown Redwood City. The Carriage House addition and associated improvements are intended to be part of a single cultural attraction (called the Museum Block) containing the Courthouse Square, History Museum, Carriage House, and Lathrop House. The Museum Block site is an approximately 1.38-acre site roughly bound by Marshall Street on the north, Hamilton Street to the west, Broadway Street to the south and Middlefield Road to the east. The proposed addition would be located on a 0.17-acre portion of the northeast corner of the existing museum and is considered in-fill development. The addition would not divide an established community as it would be an addition to an existing building.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

11.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?				

Discussion: The County Government Center campus is County-owned land within the incorporated City of Redwood City and does not have a County land use or zoning designation.

Applicable land use from the San Mateo County General Plan (1986), Chapter 7, General Land Use Policies, and Chapter 8, Urban Land Use Goals, Objectives, and Policies include:

Goals and Objectives:

• 7.7 Land Use Patterns: Distribute the designation of land uses in order to achieve orderly, understandable, coherent and workable land use patterns.

• 7.16 Land Use Objectives for Urban Areas: Locate land use designations in urban areas (urban unincorporated areas) in order to: (1) maximize the efficiency of public facilities, services and utilities, (2) minimize energy consumption, (3) encourage the orderly formation and development of local government agencies, (4) protect and enhance the natural environment, (5) revitalize existing developed areas, and (6) discourage urban sprawl.

• 7.17 Appropriate Land Use Designations for Urban Areas: To meet land use objectives, primarily plan for the following generalized land use designations in urban areas: (1) Residential, (2) Commercial, (3) Office, (4) Industrial, (5) Airport, (6) Institutional, (7) Recreation, and (8) General Open Space.

• 8.1 Urban Land Use Planning: Plan for a compatible and harmonious arrangement of land uses in urban areas by providing a type and mix of functionally well-integrated land uses which meets general social and economic needs.

General Development Standards:

• 8.35 Zoning Regulations*: To ensure that development is consistent with land use designations, continue to use zoning districts which regulate development by applying specific standards.

• 8.36 Uses*: Allow uses in zoning districts that are consistent with the overall land use designation.

• 8.39 Height, Bulk, and Setbacks*: Regulate height, bulk, and setback requirements in zoning districts in order to: (1) ensure that the size and scale of development is compatible with parcel size, (2) provide sufficient light and air in and around structures, (3) ensure that development of permitted densities is feasible, and (4) ensure public health and safety.

* These policies are provided for reference only as the project site does not have specific County Land Use or Zoning Designations.

The project is consistent with the land use policies listed above. While the project site is not subject to a specific County Land Use or Zoning Designation, the overall urban land use patterns, objectives for orderly urban development, appropriate designation, and compatible and harmonious

designation of land use as stated in the County's Urban land use policies are supported by the proposed project as it would provide additional exhibit space for historical artifacts and an event space within an area dedicated to showcasing the County's historical assets and hosts event functions.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

11.c. Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?				

Discussion: The Carriage House addition and associated improvements are intended as part of a single cultural attraction (Museum Block) containing the Courthouse Square, History Museum, Carriage House addition, and Lathrop House. Additional off-site development that would lead to increased development intensity is not anticipated as a result of the proposed addition to the history museum. Utility improvements (electrical relocation and improved sewer lines) support only the proposed improvements and would not be of sufficient capacity to encourage other off-site development.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

12. MINERAL RESOURCES. Would the project:

	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
12.a. Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?				X

Discussion: No mineral resources have been identified on or near the project site. Therefore, the proposed project would have no impact on mineral resources.

Source:

County of San Mateo. 1986. General Plan. Department of Planning and Building, San Mateo County, California. Available at: https://planning.smcgov.org/general-plan, accessed April 20, 2020.

12.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?				X

Discussion: See discussion under Question 12.a.

Source:

County of San Mateo. 1986. General Plan. Department of Planning and Building, San Mateo County, California. Available at: https://planning.smcgov.org/general-plan, accessed April 20, 2020.

13. NOISE. Would the project result in:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
13.a.	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?			X	

Discussion: As described in detail below, the proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project site that are in excess of standards established in the County's General Plan, Noise Ordinance, or applicable standards of other agencies. This impact would be less than significant.

Noise Fundamentals

"Sound" is a vibratory disturbance created by a moving or vibrating source and is capable of being detected. For example, airborne sound is the rapid fluctuation of air pressure above and below atmospheric pressure. "Noise" may be defined as unwanted sound that is typically construed as loud, unpleasant, unexpected, or undesired by a specific person or for a specific area.

Sound has three properties: frequency (or pitch), amplitude (or intensity or loudness), and duration. Pitch is the height or depth of a tone or sound and depends on the frequency of the vibrations by which it is produced. Sound frequency is expressed in terms of cycles per second, or Hertz (Hz). Humans generally hear sounds with frequencies between 20 and 20,000 Hz and perceive higher frequency sounds, or high pitch noise, as louder than low-frequency sound or sounds low in pitch. Sound intensity or loudness is a function of the amplitude of the pressure wave generated by a noise source combined with the reception characteristics of the human ear. Atmospheric factors and obstructions between the noise source and receptor also affect the loudness perceived by the

receptor. The frequency, amplitude, and duration of a sound all contribute to the effect on a listener, or receptor, and whether or not the receptor perceives the sound as "noisy" or annoying. Despite the ability to measure sound, human perceptibility is subjective, and the physical response to sound complicates the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms, such as "noisiness" or "loudness."

Sound pressure levels are typically expressed on a logarithmic scale in terms of decibels (dB). A dB is a unit of measurement that indicates the relative amplitude (i.e., intensity or loudness) of a sound, with 0 dB corresponding roughly to the threshold of hearing for the healthy, unimpaired human ear. Since decibels are logarithmic units, an increase of 10 dBs represents a ten-fold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 times more intense, etc. In general, there is a relationship between the subjective noisiness or loudness of a sound and its intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. Due to the logarithmic basis, decibels cannot be directly added or subtracted together using common arithmetic operations:

$$50\ decibels + 50\ decibels\ \neq 100\ decibels$$

Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50 dBA, two of the same sources would combine to produce 53 dB as shown below.

$$10 * \ 10\ log\left(10^{\left(\frac{50}{10}\right)} + \ 10^{\left(\frac{50}{10}\right)}\right) = 53\ decibels$$

In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source.

Although humans generally can hear sounds with frequencies between 20 and 20,000 Hz most of the sound humans are normally exposed to do not consist of a single frequency, but rather a broad range of frequencies perceived differently by the human ear. In general, humans are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. Instruments used to measure sound, therefore, include an electrical filter that enables the instrument's detectors to replicate human hearing. This filter known as the "A-weighting" or "A-weighted sound level" filters low and very high frequencies, giving greater weight to the frequencies of sound to which the human ear is typically most sensitive. Most environmental measurements are reported in dBA, meaning decibels on the A-scale.

Sound levels are usually not steady and vary over time. Therefore, a method for describing either the average character of the sound or the statistical behavior of the variations over a period of time is necessary. The continuous equivalent noise level (Leq) descriptor is used to represent the average character of the sound over a period of time. The Leq represents the level of steady-state noise that would have the same acoustical energy as the sum of the time-varying noise measured over a given time period. Leq is useful for evaluating shorter time periods over the course of a day. The most common Leq averaging period is hourly, but Leq can describe any series of noise events over a given time period.

When considering environmental noise, it is important to account for the different responses people have to daytime and nighttime noise. In general, during the nighttime, background noise levels are generally quieter than during the daytime but also more noticeable due to the fact that household noise has decreased as people begin to retire and sleep. Accordingly, a variety of methods for measuring and normalizing community environmental noise have been developed. The California Office of Planning and Research's General Plan Noise Element Guidelines identifies the following common metrics for measuring noise (OPR, 2017):

- **Ldn (Day-Night Average Level):** The average equivalent A-weighted sound level during a 24-hour day, divided into a 15-hour daytime period (7 AM to 10 PM) and a 9-hour nighttime period (10 PM to 7 AM). A 10 dB "penalty" is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45-dBA nighttime sound level (e.g., at 2 AM) would contribute as much to the overall day-night average as a 55-dBA daytime sound level (e.g., at 7 AM).
- **CNEL (Community Noise Equivalent Level):** The CNEL descriptor is similar to Ldn, except that it includes an additional 5 dBA penalty for noise events that occur during the evening time period (7 PM to 10 PM). For example, a 45-dBA evening sound level (e.g., at 8 PM) would contribute as much to the overall day-night average as a 50-dBA daytime sound level (e.g. at 8 AM).

The artificial penalties imposed during Ldn and CNEL calculations are intended to account for a receptor's increased sensitivity to noise levels during quieter nighttime periods. As such, the Ldn and CNEL metrics are usually applied when describing longer-term ambient noise levels because they account for all noise sources over an extended period of time and account for the heightened sensitivity of people to noise during the night. In contrast, the Leq metric is usually applied to shorter reference periods where sensitivity is presumed to remain generally the same.

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise generating source. The strength of the source is often characterized by its "sound power level." Sound power level is independent of the distance a receiver is from the source and is a property of the source alone. Knowing the sound power level of an idealized source and its distance from a receiver, sound pressure level at the receiver point can be calculated based on geometrical spreading and attenuation (noise reduction) as a result of distance and environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and shielding by terrain or barriers.

For an ideal "point" source of sound, such as mechanical equipment, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically, the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point source. In contrast, a "line" source of sound, such as roadway traffic or a rail line, spreads out in a cylindrical pattern and theoretically attenuates by 3 dB with each doubling of distance from the line source; however, the sound level at a receptor location can be modified further by additional factors. The first is the presence of a reflecting plane such as the ground. For hard ground, a reflecting plane typically increases A-weighted sound pressure levels by 3 dB. If some of the reflected sound is absorbed by the surface, this increase will be less than 3 dB. Other factors affecting the predicted sound pressure level are often lumped together into a term called "excess attenuation." Excess attenuation is the amount of additional attenuation that occurs beyond simple spherical or cylindrical spreading. For sound propagation outdoors, there is almost always excess attenuation, producing lower levels than what would be predicted by spherical or cylindrical spreading. Some examples include attenuation by sound absorption in air; attenuation by barriers; attenuation by rain, sleet, snow, or fog; attenuation by grass, shrubbery, and trees; and attenuation from shadow zones created by wind and temperature gradients. Under certain meteorological conditions, like fog and low-level clouds, some of these excess attenuation mechanisms are reduced or eliminated due to noise reflection.

Noise Effect on Human Beings

Human response to sound is highly individualized because many factors influence a person's response to a particular noise, including the type of noise, the variability of the sound level, the presence of tones or impulses, and the time of day the noise occurs. In addition, non-acoustical factors, such as the person's opinion of the noise source, the ability to adapt to the noise, the

attitude towards the source and those associated with it, and the predictability of the noise, all influence a person's response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses will range from "not annoyed" to "highly annoyed" with annoyance being an expression of negative feelings resulting from interference with activities, the disruption of one's peace of mind, or degradation of the enjoyment of one's environment.

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects. Noise can mask important sounds and disrupt communication between individuals in a variety of settings, resulting in a slight irritation to a serious safety hazard, depending on the circumstance. Noise-induced sleep interference is a critical factor in community and personal annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep resulting in short-term adverse effects such as mood changes, job/school performance, etc.

Physiological effects are usually limited to prolonged and/or repeated exposure to high noise environments at facilities such as, but not limited to, industrial and manufacturing facilities or airports.

Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person's subjective reaction to a new noise source is to compare it to the existing environment without the noise source, or the "ambient" noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible; however, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

Existing Noise and Vibration Environment

As described in the City of Redwood City's Downtown Precise Plan (DPP) EIR, the primary noise sources in the DPP area are automobile and truck traffic along downtown streets (City of Redwood City 2010). Intermittent aircraft overflights as well as the operation of existing commercial development throughout the area also contribute to the ambient noise environment in the area. Figure 11.2 of the DPP EIR shows existing noise levels are generally loudest along the project site's northeastern corner (i.e., Middlefield Road / Marshall Street intersection). Based on the information contained in the DPP EIR, the project site is exposed to noise levels of approximately 65-70 dBA Ldn. For the purposes of the analysis contained further down in this response, daytime hourly noise levels are considered to be 60 dBA $Leq_{1\text{-}hr}$ near the project site.

Noise Sensitive Receptors

Noise sensitive receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. Residential areas, hospitals, schools, and parks are examples of noise sensitive receptors that could be sensitive to changes in existing environmental

noise levels. The noise sensitive receptors adjacent or in close proximity project site are the two single-family homes at 605 and 611 Middlefield Road, approximately 300 feet north of the project site.

Applicable Noise Standards

The California Building Standards Code is contained in Title 24 of the California Code of Regulations and consists of 11 different parts that set various construction and building requirements. Part 2, California Building Code, Section 1207, Sound Transmission, establishes sound transmission standards for interior walls, partitions, and floor/ceiling assemblies. Specifically, Section 1207.4 establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 dBA DNL or CNEL (as set by the local General Plan) in any habitable room.

The California Green Building Standards Code is Part 11 to the California Building Standards Code. Chapter 5, Nonresidential Mandatory Standards, Section 5.507 establishes the following requirements for non-residential development that may be applicable to the proposed project.

- 5.507.4.1.1 sets forth that buildings exposed to a noise level of 65 dB Leq (1-hour) during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composting sound transmission class (STC) rating of at least 45 (or an outdoor indoor transmission class (OITC) of 35), with exterior windows of a minimum STC of 40.
- Section 5.507.4.2 sets forth that wall and roof assemblies for buildings exposed to a 65 dBA Leq pursuant to Section 5.507.4.1.1, shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed 50 dBA Leq in occupied areas during any hour of operation. This requirement shall be documented by preparing an acoustical analysis documenting interior sound levels prepared by personnel approved by the architect or engineer of record.

The San Mateo County General Plan provides guidelines for new sensitive land use developments and establishes goals and policies to protect its residents. It is a County objective to strive toward an environment for all County residents that is free from unnecessary, annoying, and injurious noise.

The following goal and policies identified in the Noise Element are applicable to the proposed project:

- **Goal 2: Minimize unnecessary, annoying, or unhealthful noise.**
  Policy N 2.1: Noise Ordinance. Continue implementation and enforcement of the County's existing noise control ordinance: a) which prohibits noise that is annoying or injurious to neighbors of normal sensitivity, making such activity a public nuisance, and b) restricts the hours of construction to minimize noise impact.
  Policy N 2.2: Minimize Noise Impact. Protect all "noise-sensitive" land uses in Tables N-1 and N-2 [of the Noise Element] from adverse impacts caused by the noise generated on-site by new developments. Incorporate necessary mitigation measures into development design to minimize noise impacts. Prohibit long-term exposure increases of 3 dB (Ldn) or greater at the common property line, or new uses which generate noise levels of 60 dB (Ldn) or greater at the property line, excluding existing ambient noise levels.

The San Mateo County Noise Ordinance contains Chapter 4.88 (Noise Control), which establishes standards to control unnecessary and excessive noise in the incorporated and unincorporated portions of the County of San Mateo. Chapter 4.88 stipulates that noise sources associated with demolition, construction, repair, remodeling, or grading activity are exempt from the noise ordinance, provided the activities occur between the hours of 7:00 A.M. and 6:00 P.M. on weekdays, and 9:00 A.M. and 5:00 P.M. on Saturdays. Construction noise on Sundays, Thanksgiving, and Christmas is not exempt.

Noise Impact Analysis

Temporary Construction Noise

As described in Section 3, the proposed project would involve the construction of an approximately 14,000 square foot museum addition over approximately 15 months, which includes time to improve utility infrastructure.

Project construction would require the use of heavy-duty construction equipment that could temporarily increase noise levels at adjacent property lines near work areas. The type of equipment used would include but is not limited to: a front-loader, ten-wheel dump trucks, a sheepsfoot / smooth drum roller, a backhoe, a crane, and ready-mix trucks. Table 6 presents the estimated, worst-case noise levels that could occur from the operation of typical construction equipment at a reference distance of 50 feet as well as 300 feet (i.e., the distance from the project site to the nearest sensitive receptors at 605 and 611 Middlefield Road).

Table 6: Typical Construction Equipment Noise Levels

Equipment	Reference Noise Level at 50 Feet (Lmax)(A)	Percent Usage Factor(B)	Predicted Noise Levels (Leq) at Distance(C)	
			50 Feet	300 Feet
Backhoe	80	40	76	60
Bulldozer	85	40	81	65
Compact Roller	80	20	73	57
Crane	85	16	77	61
Delivery Truck	85	40	81	65
Paver	85	50	82	66
Pneumatic tools	85	50	82	66

Sources: Caltrans 2013 and FHWA 2010.

(A) L_{max} noise levels based on manufacturer's specifications.

(B) Usage factor refers to the amount of time the equipment produces noise over the time period.

(C) Estimate does not account for any atmospheric or ground attenuation factors. Calculated noise levels based on Caltrans 2009: L_{eq} (hourly) = L_{max} at 50 feet – 20log (D/50) + 10log (UF), where: L_{max} = reference L_{max} from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.

As shown in Table 6, worst-case, individual noise levels associated with the operation of a bulldozer and delivery truck are predicted to be approximately 81 dBA and 65 dBA at a distance of 50 feet and 300 feet, respectively. At an active construction site, it is not uncommon for two or more pieces of construction equipment to operate at the same time and in close proximity. Based on the construction equipment and phasing described in the Project Description, it is anticipated worst-cast noise levels would occur during demolition and grading operations, when a front-loader, ten-wheel dump trucks, and a sheepsfoot / smooth drum roller could be operating simultaneously. At a distance of 300 feet, the concurrent operation of these pieces of equipment would produce an estimated noise level of approximately 70 dBA, which is approximately 10 dBA louder than the 60 dBA existing noise environment in proximity of the project site. These estimates assume no shielding or other noise control measures are in place at or near the work areas. These maximum noise levels would occur for a short period (estimated to be approximately three weeks). The rest of

the other activities would likely involve less operation of heavy-duty off-road equipment and, therefore, produce lower noise levels.

The noise generated from project construction would be temporary and would not produce the same sound levels every day. In addition, the County does not maintain numeric thresholds for the purposes of evaluating construction noise level. Neither the General Plan nor the County's Code Ordinances specify a noise level for construction activities. Project construction would take place in accordance with Chapter 4.88 of the County's Code of Ordinances (i.e., 7:00 A.M. and 6:00 P.M. on weekdays, and 9:00 A.M. and 5:00 P.M. on Saturdays). Project construction noise, therefore, would not exceed an applicable standard and would not result in a significant impact.

Exterior Noise / Land Use Compatibility

The project site's northern and eastern property lines are within a 70-dBA Ldn noise contour zone, as identified in the Redwood City DPP EIR (Redwood City 2010; Figure 11.2). Although the project does not involve the construction of a noise sensitive land use subject to the compatibility guidelines identified in the County's General Plan Noise Element, the project – as a non-residential structure – is still subject to requirements identified in the California Green Building Standards Code.

Pursuant to Section 5.507.4.2 of the California Green Building Standards Code, the proposed museum expansion would be required to be constructed such that the interior noise level does not exceed an hourly Leq value of 50 dBA. Standard construction techniques and materials are commonly accepted to provide a minimum exterior to interior noise attenuation (i.e., reduction) of 22 – 25 dBA with all windows and doors closed.[4] Adherence to these mandatory requirements contained in the California Green Building Standards Code would ensure the proposed addition would meet or exceed the 50 dBA Leq standard required under CCR Title 24.

Long-term Operational Noise

Once constructed, the proposed project would generate noise from the use of heating, air conditioning, and ventilation (HVAC) equipment and vehicle trips to and from the project site. As depicted in Project Plan Sheet A3.3, mechanical equipment (e.g., HVAC equipment) would be located in the middle of the roof. Due to the height of the building and metal roof, this equipment would be shielded from receptors and would not have the potential to generate substantial noise levels that affect nearby properties.

The proposed project would generate traffic that would be distributed onto the local roadway system and potentially increase noise levels along travel routes. Caltrans considers a doubling of total traffic volume to result in a three dBA increase in traffic-related noise levels (Caltrans 2013). If the proposed project would not result in a doubling of traffic volumes on the local roadway system, it would not result in a substantial permanent increase in traffic-related noise levels. The traffic analysis prepared by Hexagon Transportation Consultants indicates the proposed project could increase trip generation at the site by up to 162 trips per day when the site has evening special event. The proposed project is located within the Redwood City Downtown area and is already subject to a high level of traffic. The proposed project would result in substantially less than a doubling of peak hour and daily traffic volumes on Marshall Street and Middlefield Road, the two

[4] The U.S. Department of Housing and Urban Development (HUD) Noise Guidebook and supplement (2009a, 2009b) includes information on noise attenuation provided by building materials and different construction techniques. As a reference, a standard exterior wall consisting of 5/8-inch siding, wall sheathing, fiberglass insulation, two by four wall studs on 16-inch centers, and 1/2-inch gypsum wall board with single strength windows provides approximately 35 dBs of attenuation between exterior and interior noise levels. This reduction may be slightly lower (2-3 dBs) for traffic noise due to the specific frequencies associated with traffic noise. Increasing window space may also decrease attenuation, with a reduction of 10 dBs possible if windows occupy 30% of the exterior wall façade.

roadways adjacent to the project site, and therefore, would not result in a substantial, permanent increase in noise levels along the roadways used to access the project.

The proposed project would have a less than significant impact on ambient noise.

Source:

California Department of Transportation (Caltrans). 2013. *Transportation and Construction Vibration Guidance Manual*. Prepared by the California Department of Transportation: Division of Environmental Analysis Environmental Engineering – Hazardous Waste, Air, Noise, Paleontology Office. Report No. CT-HWANP-RT-13-069.25.3. Sacramento, CA. September 2013.

California Office of Planning and Research (OPR). 2017. State of California General Plan Guidelines. Sacramento, CA.

City of Redwood City. 2010. Draft Environmental Impact Report for the Redwood City Downtown Precise Plan. State Clearinghouse #2006052027. Prepared by City of Redwood City with the Assistance of Wagstaff/MIG Urban and Environmental Planners. August 2010.

County of San Mateo. 1986. General Plan. Department of Planning and Building, San Mateo County, California. Available at: https://planning.smcgov.org/general-plan, accessed November 13, 2017.

Hexagon Transportation Consultants. 2020. Traffic Analysis for the Proposed San Mateo County History Museum Expansion in Redwood City, California. April 8.

U.S. Department of Housing and Urban Development, 2009a. Noise Guidebook. Prepared by the Environmental Planning Division, Office of Environment and Energy.

U.S. Department of Housing and Urban Development, 2009b. Noise Guidebook, Chapter 4 Supplement: Sound Transmission Class Guidance. Prepared by the Environmental Planning Division, Office of Environment and Energy.

U.S. Department of Transportation, Federal Highway Administration (FHWA), 2017. "Construction Noise Handbook, Chapter 9 Construction Equipment Noise Levels and Ranges." Available at: http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm (accessed August 1, 2019).

13.b.	Generation of excessive ground-borne vibration or ground-borne noise levels?			X	

Discussion: The proposed project would not generate excessive ground-borne vibration or ground-borne noise levels. This impact would be less than significant.

Vibration Background Information

Vibration is the movement of particles within a medium or object such as the ground or a building. Vibration may be caused by natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or humans (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources are usually characterized as continuous, such as factory machinery, or transient, such as explosions.

As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency; however, unlike airborne sound, there is no standard way of measuring and reporting amplitude. Vibration amplitudes can be expressed in terms of velocity (inches per second) or discussed in dB units in order to compress the range of numbers required to describe vibration. As with airborne sound, the ground-borne velocity can also be expressed in decibel notation as velocity

decibels, or dBV (FTA, 2018). The vibration of floors and walls may cause perceptible vibration, rattling of items such as windows or dishes on shelves, or a low-frequency rumble noise, referred to as ground-borne noise. This report uses peak particle velocity (PPV) to describe vibration effects. Vibration impacts to buildings are usually discussed in terms of PPV in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Vibration can impact people, structures, and sensitive equipment. The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (e.g., crack plaster or destroy windows). Ground-borne vibration can also disrupt the use of sensitive medical and scientific instruments, such as an electron microscope.

Common sources of vibration within communities include construction activities and railroads. Ground-borne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used.

Caltrans' *Transportation and Construction Vibration Guidance Manual* provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies (Caltrans, 2013). Chapter six of this manual provides Caltrans' guidelines and thresholds for evaluation potential vibration impacts on buildings and humans from transportation and construction projects. These thresholds are summarized in Table 7 and Table 8.

Table 7: Caltrans' Vibration Threshold Criteria for Building Damage

Structural Integrity	Maximum PPV (in/sec)	
	Transient	Continuous
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50
Source: Caltrans 2013		

Table 8: Caltrans' Vibration Threshold Criteria for Human Response

Human Response	Maximum PPV (in/sec)	
	Transient	Continuous
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severely perceptible	2.00	0.40
Source: Caltrans 2013		

Vibration Impact Analysis

The potential for ground-borne vibration is typically greatest when vibratory or large equipment such as rollers, impact drivers, or bulldozers are in operation. For the proposed project, the largest earthmoving equipment would primarily operate during demolition, and grading work. This equipment would, at worst-case and for limited periods of time (i.e., three weeks), operate adjacent to the site's property lines near the existing History Museum and the Lathrop House. Table 9 lists the typical vibration levels generated by the type of heavy-duty construction equipment most likely to be

used during project construction, as well as the estimated vibration levels at distances of 25 feet and 50 feet from the project site.

Table 9. Potential Ground-borne Vibration Levels

Equipment	Peak Particle Velocity(A) (Inches/Second) at Distance	
	25 Feet	50 Feet
Vibratory Roller	0.21	0.085
Small Bulldozer	0.03	0.012
Loaded Truck	0.076	0.031
Jackhammer	0.035	0.014

Sources: Caltrans 2013 and FTA 2006.
(A) Estimated PPV calculated as: PPV(D)=PPV(ref*(25/D^1.3 where PPV(D)= Estimated PPV at distance; PPVref= Reference PPV at 25 ft; D= Distance from equipment to receiver; and n= ground attenuation rate (1.3 for competent sands, sandy clays, silty clays, and silts).

As shown in Table 9, construction equipment vibration levels for the operation of a sheepsfoot / smooth drum roller at 25 feet would be between Caltrans' vibration detection thresholds (see Table 8) for "distinctly perceptible" (0.24 in/sec PPV) and approach thresholds for "strongly perceptible" (0.90 in/sec PPV) when operating in proximity to the existing History Museum and Lathrop House and therefore would likely to be perceptible at this building location. This, however, is not considered to be excessive, because any equipment operation near property lines would be short in duration and intermittent (lasting only a few hours or days in work areas closest to building locations). Any receptors within the museum would be transient, meaning that they would only be exposed to vibration levels for only a short duration of time.

The project site is relatively small (i.e., approximately 0.17 acres) and therefore, heavy-duty construction equipment operation would be limited both in time and geographic extent within the project area. Although construction would take place adjacent to the Lathrop House, it is unanticipated the prolonged use of a sheepsfoot / smooth drum roller, used to prepare the site for foundation construction, would be required in proximity to the historic structure, since the site is already level and the construction activities taking place between the proposed expansion and Lathrop House consist of paving. The proposed expansion's western façade would be approximately 50 feet from the Lathrop House's eastern façade (i.e., it would be separated by the courtyard). Even at distance of 25 feet, the operation of a sheepsfoot / smooth drum roller would not pose a potential threat to the structural stability of Lathrop House (i.e., 0.21 in/sec PPV is lower than the continuous threshold of 0.25 in/sec PPV). Ground-borne vibration would also not cause damage to the existing museum (i.e., annex), which is considered to be a modern industrial / commercial structure (0.05 in/sec PPV per Caltrans' continuous threshold).[5] Thus, short-term, intermittent construction equipment vibration levels would not be excessive.

Once operational, the proposed project would result in the operation of sources that would generate substantial ground-borne vibration levels. This impact would be less than significant.

Source:

Brandi, Richard, 2017. Lathrop House Receiver Site: San Mateo County Courthouse Square, Conducted for MIG, Inc. 2635 N. First Street, Suite 149, San Jose, CA 95134. November 16, 2017.

[5] The annex was seismically retrofit in 1998 after the Loma Prieta Earthquake damaged the structure.

California Department of Transportation (Caltrans). 2013. *Transportation and Construction Vibration Guidance Manual*. Prepared by the California Department of Transportation: Division of Environmental Analysis Environmental Engineering – Hazardous Waste, Air, Noise, Paleontology Office. Report No. CT-HWANP-RT-13-069.25.3. Sacramento, CA. September 2013.

United States Federal Transit Administration (FTA) 2006. *Transit Noise and Vibration Assessment*. FTA-VA-90-1003-06. Washington, DC. May 2006.

13.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 2 miles of a public airport or public use airport, exposure to people residing or working in the project area to excessive noise levels?			X	

Discussion: The proposed project site is located approximately 1.6 miles southeast of the San Carlos Airport but is outside the projected 55 dB CNEL contour published in the San Mateo County Comprehensive Land Use Plan. Therefore, this impact would be less than significant (CCAG 2015).

Source:

City/County Association of Governments of San Mateo County (CCAG). 2015. *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport*. Adopted October 2015.

14. POPULATION AND HOUSING. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
14.a.	Induce substantial unplanned 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)?				X

Discussion: The proposed project would not induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). The project would construct a 3-story, 14,000 square foot addition to the San Mateo County Courthouse History Museum. The project would not expand infrastructure capacities that would support development or community growth outside of the project site. The project does not propose new homes and would not displace any existing housing, necessitating the construction of replacement housing elsewhere. The project would not impact population or housing.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

14.b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Discussion: See discussion under Question 14.a.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

15. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the 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:

	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
15.a. Fire protection?			X	
15.b. Police protection?			X	
15.c. Schools?				X
15.d. Parks?				X
15.e. Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?			X	

Discussion: The project is located in an urban area that is well served by local fire, police, and public facilities. The closest fire station to the project site is the Redwood City Fire Station is located at 755 Marshall Street, two blocks from the project site. The Redwood City Police Substation is located at 2223 Broadway Street, one block from the project site. The project is an addition to the History Museum. Any incremental increase in service demand caused by the proposed project is expected to be minor and less than significant.

The project does not propose new housing; therefore, it is not expected to impact local schools, parks or other public facilities. As described in the Project Description the project would require connection to the Redwood City water, sanitary sewer and storm drain systems. The water and sewer connection would be made to the pipeline mains in Middlefield Road.

Project construction would also require the relocation of existing PG&E infrastructure running through the site including an existing 12kV primary electrical feed serving the existing History

Museum site and an above ground transformer. Both are presently located within the footprint of the proposed addition. The transformer is proposed to be relocated to the Middlefield Road side of the museum complex and the new 12kV feed would tie back into the original point of connection in an electrical vault on Marshall Street. The work would also require the installation of a new switch board which is proposed in the old Annex building, with the new secondary feeders to the proposed Middlefield underground transformer. PG&E would approve and permit all electrical work.

The project would not impact schools or parks and would have a less than significant impact on police, fire, and other public services.

Source:

Google Earth Pro. 2020. Accessed on April 10, 2020

Redwood City California. 2020. Fire Department. Accessed on April 10, 2020 at https://www.redwoodcity.org/departments/fire-department.

Redwood City California. 2020. Redwood City Police Department. Accessed on April 10, 2020 at https://www.redwoodcity.org/departments/police-department.

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

16. RECREATION. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
16.a. Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X

Discussion: The proposed project would provide additional museum exhibit space and an event venue. The project does not provide for additional population that would utilize local recreational facilities and is therefore not expected to increase the use of existing neighborhood or regional parks or other recreational facilities such that the physical deterioration of the facility would occur or be accelerated.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

16.b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Discussion: The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

17. TRANSPORTATION. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
17.a.	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, and parking?			X	

Discussion: A Transportation Analysis was prepared for the proposed project by Hexagon Transportation Consultants (April 2020), included in this IS/MND as Appendix D. Please see the full report for information on the existing transportation network in the vicinity of the project site (roadway network, pedestrian, bus, bicycle, and transit services) and trip generation analysis.

The project's impacts were evaluated in accordance with San Mateo County and the City of Redwood City's requirements. The project was found to generate less than 100 peak hour trips and is therefore not subject to review by the City/County Association of Governments (C/CAG). The project is located in an urban downtown and considered in-fill development that would expand the existing County History Museum with additional museum/exhibit space as well as a special event space. The project is expected to generate less than 30 new daily vehicle trips on a typical weekday and is not anticipated to have an adverse impact the transportation network.

Existing pedestrian facilities (sidewalks) along the roads surrounding the site would be maintained post-construction. No other transit facilities would be affected by the proposed project. There are no bus stops immediately adjacent to the project site. A bicycle lane is located on eastbound Marshall Street; however no project improvements would permanently disrupt the bicycle lane.

Temporary disruption to pedestrian, vehicle, and bicycle lanes in the vicinity of the project is anticipated during construction. BMPs listed in Project Description include the preparation of a construction traffic management plan to be approved by the County. Pedestrian traffic along south side of Marshall St from Hamilton to Middlefield is expected to be redirected to north side of Marshall St. (County office side) and the westerly side of Middlefield from Marshall St to Broadway would be redirected to the Middlefield easterly sidewalk. During grading, the northerly end of Middlefield would have intermittent interruption of traffic flow as vehicles leaves / enter site. Parking along Marshall Street, east of Lathrop house, is expected to only be intermittent barricaded during steel erection construction operations.

The Traffic Analysis also included a review of multi-modal access to determine the overall adequacy of site access via public transportation, walking, and biking. The analysis found the San Mateo County History Museum is well connected locally and regionally through the Redwood City Transit Center. There are also planned upgrades (separate projects) to the existing transit, bicycle, and

pedestrian facilities. There is robust first-mile/last-mile bicycle and pedestrian access between the transit center and the project site. No significant impacts are anticipated to the circulation system and therefore no mitigation is required for this project.

With the construction of the Carriage House addition and the anticipated increase in visitor use and special events, pedestrian traffic to the back of the History Museum would increase. The Traffic Analysis recommends city improvements to the pedestrian facilities at the intersection of Hamilton Street and Marshall Street that include high visibility "continental" crosswalks, with large white bars perpendicular to the roadway and leading pedestrian intervals. These improvements were analyzed and addressed in the previously adopted EIR and approved project for the County's Government Center Campus Development Project (San Mateo County 2018). However, as noted above, no impacts to the circulation system were noted in the traffic analysis for this project, and the finding of the traffic analysis is that existing pedestrian facilities adequately serve pedestrians seeking to access the project from the Redwood City Transit Center. Therefore, high visibility "continental" crosswalks would only serve to further reduce an already less than significant project impact and are not required as mitigation for this project..

Source:

Hexagon Transportation Consultants. 2020. Traffic Analysis for the Proposed San Mateo County History Museum Expansion in Redwood City, California. April 8.

San Mateo County. 2018. Final Environmental Impact Report – San Mateo County Government Center Campus Development Project. May.

17.b.	Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b) *Criteria for Analyzing Transportation Impacts*? *Note to reader: Section 15064.3 refers to land use and transportation projects, qualitative analysis, and methodology.*			X	

Discussion: The Transportation Analysis included an evaluation of the project's impacts to Vehicle Miles Traveled (VMT). According to the City's Redwood City's proposed VMT guidelines, the project is presumed to have a less than significant VMT impact because the project is expected to result in less than 150 vehicle trips on a typical (non-event) day (Hexagon 2020). Therefore, the project is considered consistent with CEQA Guidelines Section 15064.3 (b).

Source:

Hexagon Transportation Consultants. 2020. Traffic Analysis for the Proposed San Mateo County History Museum Expansion in Redwood City, California. April 8.

17.c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	

Discussion: The project is considered in-fill development with an urban downtown. The improvements are an addition to an existing building. The project would not result in increased hazards due to geometric design features (sharp curves or dangerous intersections) because the project does not alter roadway features surrounding the project site. The project site contains a small surface parking lot; however, all surface parking and vehicle access/driveways would be removed

from the site. Minor adjustments may be made to curb cuts to allow for dumpster access or pedestrian access. The curb cutout and sidewalk would be designed according to City of Redwood City street and sidewalk standards.

Source:

Hexagon Transportation Consultants. 2020. Traffic Analysis for the Proposed San Mateo County History Museum Expansion in Redwood City, California. April 8.

17.d. Result in inadequate emergency access?			X	

Discussion: The project is the expansion of an existing historical museum. Emergency access to the site is provided by surrounding streets along the perimeter of the property. Emergency access for the new addition, as well as internal access between the existing museum building and proposed addition, would be in accordance with current building code standards and subject to relevant fire codes and review.

Source:

Hexagon Transportation Consultants. 2020. Traffic Analysis for the Proposed San Mateo County History Museum Expansion in Redwood City, California. April 8.

18. TRIBAL CULTURAL RESOURCES. Would the project:

	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
18.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 or 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:		X		
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)		X		

Discussion: The Native American Heritage Commission (NAHC) was contacted by MIG on June 7, 2017 for a Sacred Lands File (SLF) search for the San Mateo County Government Center Campus Development Project EIR (adjacent to the project site). The NAHC stated that the results were negative (no know cultural/tribal resources) in the search area (1/2-mile radius around the project site); however, it was also noted by the NAHC that the area was considered sensitive regarding

Tribal Cultural Resources (TCR). As an extension of the aforementioned SLF, and as requested by the NAHC, tribal representatives were contacted by certified mail and by email on June 22, 2017 requesting any additional information they may have regarding the project area. No responses were made by any of the representatives contacted (NAHC 2017). Additional scoping letters were sent by the County for this project to local tribal representatives and all tribes received the letter via certified mail on April 30th, 2020. No replies were received by county staff within 30 days.

No known TCRs or prehistoric archaeological resources are identified within a 0.25-mile radius of the site; however, the area is considered sensitive in terms of TCRs by the NAHC. The site is located on alluvial soils that once were on or near the shores of San Francisco Bay. Native American TCRs are more likely to occur at locations on the edge of water. The bay soils have a high potential of preserving artifacts that may be present.

Redwood City contains at least 12 known prehistoric archaeological sites (Redwood City 2010). Native soils would therefore have a moderate to high potential of containing Native American sites or artifacts. However, previous development on the site may have destroyed subsurface prehistoric archaeological resources, and there is considered a moderate potential of archaeological discovery for prehistoric resources.

Mitigation Measure CUL-1 would be enacted to help protect and safeguard buried archaeological resources, including TCRs. Included in the mitigation measure is compulsory archaeological training for construction crews and the requirement to call an archaeologist if potential archaeological resources are discovered as well as a Native American tribal monitoring if archaeological resources are determined or suspected to be Native American in origin. Implementation of CUL-1 would reduce project impacts to less than significant.

Source:

NAHC. 2017. Unpublished letter containing search results from Sacred Lands File search. Kept on file at NAHC and with MIG. Inc.

NWIC. 2017. Report number 16-1960. Unpublished confidential report containing search results from site specific survey. Kept on file at NWIC and with MIG. Inc.

Redwood City. 2010. Redwood City New General Plan Public Draft EIR, 4.5 Cultural Resources. Accessed on April 7, 2020 at: https://www.redwoodcity.org/home/showdocument?id=5027

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

ii. 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.)		X		

Discussion: There is a potential that some Native American archaeological resources may not be considered unique archaeological resources under the normal CEQA guidelines. However, it is

possible for a lead agency to determine that an artifact is considered significant to a local tribe, and thus designate it a significant resource under CEQA. Provisions are made in Mitigation Measure CUL-1 for Native American tribal monitoring if archaeological resources are determined to be Native American in origin. The mitigation measure includes language that all Native American archaeological resources are to be considered significant until the lead agency has enough evidence to consider an artifact, or other find that is not be eligible for listing, is not significant. The impact is considered significant unless mitigated (i.e., less than significant with mitigation incorporated).

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

19. UTILITIES AND SERVICE SYSTEMS. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
19.a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	

Discussion: The project is a 3-story, 14,000 square foot (4,700 square foot footprint) addition to the History Museum, including an event center with a catering kitchen. Water usage associated with the project would consist of bathroom and special event kitchen usage. Wastewater would be generated by the kitchen and new restrooms associated with the Carriage House addition. The addition would connect to existing water and sewer infrastructure located along Middlefield Road near the southeast corner of the proposed addition.

Water and wastewater services in the project area are provided by the City of Redwood City. The applicant has received a will-serve letter for water service and tentative allowance for a sewer lateral connection to Middlefield Road. Confirmation of the sewer lateral connection will be provided following receipt of a complete utility report and complete set of project plans as part of permit review.

The project would not require the relocation or construction of new or expanded water, wastewater treatment.

The project is located in an urban downtown setting and does not require off-site improvements to serve the proposed development with natural gas or telecommunication facilities.

There is an existing electrical transformer located on the north side of the existing annex and within the footprint of the proposed addition. This transformer will require relocation and is proposed to be relocated to the east side of the museum building along Middlefield Road (see Figure 4).

The project occurs on an existing site that is already largely developed with paved surfaces. Therefore, the project would not require improvements to the existing stormwater infrastructure to support increased capacity for stormwater runoff. The project replaces less than 10,000 square feet

of impervious surface at the site. As such, the project is not subject to Municipal National Pollutant Discharge Elimination System (NPDES) permit C.3 regulations which require the implementation of low impact development (LID) measures and stormwater treatment measures to ensure the project would not result in additional quantity, or impaired quality of stormwater discharges from the site. The project application materials state that construction drawings shall include directing roof runoff, sidewalks, walkways and patios on to vegetated areas. The project would not require the relocation or construction of new or expanded stormwater runoff facilities.

Source:

BKF Engineers. 2020. County of San Mateo - C.3 and C.6 Development Review Checklist. April 9.

City of Redwood City. 2020a. Water Service Information Form, Water Availability/Will-Serve/Condition of Services. August 26.

City of Redwood City. 2020b. Personal Communication: Email from Alex Chan, Redwood City Assistant Engineer II, Community Development and Transportation Department, to John LaTorra. RE: Carriage Gallery Sewer. September 16, 2020 at 8:52 AM.

San Mateo County Historical Association. 2018. San Mateo County Historical Museum, Carriage Gallery. Electrical Site Plan, Sheet E1.0. November 29.

19.b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	

Discussion: The project is an approximately 14,000 square-foot addition to an existing County Museum. The additional water supply needed to support the site includes water for domestic use of the visitors and staff to the site, as well as the catering kitchen on the 3rd floor of the addition. The largest use of the additional water would likely be attributed to the visitors of the proposed banquet room use and catering space as well as other nominal usage from Carriage House day visitors. The Museum anticipates the Carriage House banquet use would approximately double the number of events currently held at the site, from 25 to 52 events per year. The proposed banquet hall can accommodate up to 200 guests per event, therefore additional visitor use from new events was estimated at approximately 5,500 guests annually.

Water services in the project area are provided by the City of Redwood City. The San Mateo County History Association will submit a request to the City to confirm the ability to provide potable water for the proposed project. The request will include completed City worksheets which are used to estimate potable water demand. The City will confirm it has sufficient water supplies to serve the project, contingent upon use of recycled water infrastructure in the proposed project according to the City's Municipal Code requirements.

The project would have a less than significant impact on potable water supplies.

Source:

San Mateo County Historical Association. 2019b. San Mateo County Historical Museum, Taube Family Carriage Gallery. Enlarged Site Plan with First Floor Plan, Sheet C2.2, June 25.

19.c.	Result in a determination by the waste-water 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?			X	

Discussion: Wastewater services are provided by the City of Redwood City. The project would generate wastewater from domestic water use of the visitors and staff to the site, as well as the catering kitchen on the 3rd floor of the addition The San Mateo County History Association will submit a request to the City to confirm the ability to provide wastewater treatment services to the proposed project.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

19.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?			X	

Discussion: The project is an addition to an existing museum. The museum addition consists of additional exhibit space as well as a special event space that would be used approximately once per week or 52 times per year. The project site is served by Ox Mountain Landfill which has an estimated remaining capacity of approximately 20 million cubic yards. The anticipated closure date is 2034 (Brown-Ferris Industries of California 2018).

The facility has a maximum daily tonnage of 3598 tons per day (TPD), however typical daily average tonnage is 1,700 TPD. The facility has a permitted capacity of 60.5 million cubic yards and has used 40.5 million cubic yards (as of 4/30/2018) (Brown-Ferris Industries of California 2018).

The project would be subject to County regulations to salvage, reuse, or recycle all inert solids and at least 65% of construction and demolition debris created by the project. Building design would be subject to California Green Building Standards which address planning, design, material conservation and resources efficiency and environmental quality, among others.

The proposed project would have a less than significant impact on solid waste infrastructure.

Source:

Brown-Ferris Industries of California. 2018. Application for Solid Waste Facility Permit and Waste Discharge Requirements for Corinda Los Trancos "Ox Mountain" Sanitary Landfill Facility San Mateo California. July 10, 2018. Accessed on May 7, 2020 at: https://www2.calrecycle.ca.gov/swfacilities/Home/GetDocument/349533?opt=dln

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

19.e. Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?			X	

Discussion: The County implements various programs to reduce solid waste generation and increase diversion of recyclable materials and organic materials from landfills through its Office of Sustainability. The applicant would be required to implement a Waste Management Plan to demonstrate compliance with County regulations to salvage, reuse, or recycle all inert solids and at least 65% of construction and demolition debris created by the project. The proposed addition's use as an exhibit space and special event facility would generate a typical municipal solid waste stream that would not require special handling or disposal.

Source:

San Mateo County. 2018. San Mateo County Government Center Campus Development Project Draft Environmental Impact Report. San Mateo County Manager's Office. Project Development Unit. January.

20. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
20.a. Substantially impair an adopted emergency response plan or emergency evacuation plan?				X

Discussion: The project consists of an addition to the County History Museum building. The construction of the project would not impair an adopted emergency response plan or emergency evacuation plan.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

20.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?				X

Discussion: The project site is not within or near an identified Very High Fire Hazard Severity Zone. The project is the construction of additional museum space at an existing museum facility in an urban developed area of Downtown Redwood City and therefore would not expose museum visitors to wildfire hazard risks.

Source:

California Department of Forestry and Fire Protection. 2008. San Mateo County Very High Fire Hazard Severity Zones in LRA as Recommended by Cal Fire. November 24. Accessed on

	June 8, 2020 at https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/				
20.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?				X

Discussion: As stated previously, the project is located in an urban developed area of downtown Redwood City. The project's location does not require the provision of roads or fuel breaks, or additional powerlines or other utilities in a very high fire hazard severity zone that could exacerbate the risk for future wildfires.

Source:

California Department of Forestry and Fire Protection. 2008. San Mateo County Very High Fire Hazard Severity Zones in LRA as Recommended by Cal Fire. November 24. Accessed on June 8, 2020 at https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

20.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?				X

Discussion: The project is located on a flat parcel in an urban developed area of downtown Redwood City without any nearby topographic slopes that could be subject to downslope flooding or landslides following a wildfire. The project would have no impact.

Source:

San Mateo County Historical Association. 2019. Taube Family Carriage House at San Mateo County History Museum. Proposed Project Plans. November 7.

21. MANDATORY FINDINGS OF SIGNIFICANCE.				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
21.a. Does the project 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?		X		
Discussion: The project is a 14,000 sq. ft., 3-story addition to an existing museum to provide exhibit space for the Taube Family Carriage House. The Carriage House addition and associated improvements are intended to be part of a single cultural attraction (Museum Block) containing the Courthouse Square, History Museum, Carriage House, and Lathrop House. The Old Courthouse and Lathrop House are both on the National Register of Historic Places. The site where the addition would be located is the present location of a paved parking area. In addition to the construction of the Carriage House addition, other site improvements include the addition of a trash enclosure area next to the Lathrop House, creation of the Lathrop Courtyard, landscaping, and utility improvements to relocate some existing utilities and connect the addition to existing utility infrastructure. The project site does not contain habitat for rare or endangered species. Potential impacts to nesting birds would be avoided through the implementation of Mitigation Measures BIO-1 and BIO-2 which requires pre-construction nesting bird surveys to ensure nesting birds are not affected by loud construction activities and pre-construction roosting bats surveys to ensure project construction does not disturb a roosting bat colony. Historic architecture at the site include the newly relocated Lathrop House and the existing Old Courthouse. Neither structure would be altered by the proposed improvements and the proposed improvements were evaluated to ensure the improvements themselves would not significantly alter the historical context of the site. The Historic Resource report prepared for the project (JRP 2020) concluded that the project would have a less than significant impact on the historic structures on the project site. Mitigation Measure CUL-1 has been included in the project to ensure protection of the Lathrop House from accidental damage during construction. Mitigation Measure CUL-2 has been included in the project to ensure protection of unknown cultural resources should they be discovered during construction. **Source:** Analysis presented in this Initial Study.				
21.b. Does the project 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			X	

	projects, and the effects of probable future projects.)				
Discussion: The project is a 14,000 sq. ft., 3-story addition to an existing museum to provide exhibit space for the Taube Family Carriage House. The project would generate limited project specific impacts which have been mitigated to less than significant by mitigation measures incorporated into the project. The project would not have cumulatively considerable impacts. **Source:** Analysis presented in this Initial Study.					
21.c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		
Discussion: The project could have potentially significant impacts on air quality, biological resources, cultural/tribal cultural resources, and transportation/pedestrian safety. Mitigation measures have been identified and included in the project to reduce these impacts to less than significant levels. The project would have a less than significant impact on all other resource areas. **Source:** Analysis presented in this Initial Study.					

RESPONSIBLE AGENCIES. Check what agency has permit authority or other approval for the project.

AGENCY	YES	NO	TYPE OF APPROVAL
Bay Area Air Quality Management District		X	
Caltrans		X	
City	X		Utility infrastructure connections approval and encroachment permit
California Coastal Commission		X	
County Airport Land Use Commission (ALUC)		X	
Other: _____		X	
National Marine Fisheries Service		X	
Regional Water Quality Control Board		X	
San Francisco Bay Conservation and Development Commission (BCDC)		X	
Sewer/Water District:		X	
State Department of Fish and Wildlife		X	
State Department of Public Health		X	
State Water Resources Control Board		X	

AGENCY	YES	NO	TYPE OF APPROVAL
U.S. Army Corps of Engineers (CE)		X	
U.S. Environmental Protection Agency (EPA)		X	
U.S. Fish and Wildlife Service		X	

MITIGATION MEASURES

	Yes	No
Mitigation measures have been proposed in project application.		X
Other mitigation measures are needed.	X	

The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

MITIGATION MEASURES INCLUDED IN THE PROJECT

Impact AIR-1: Project construction could result in significant dust emissions.

Mitigation Measure AIR-1: To reduce fugitive dust that would be generated during project construction activities, the County and/or its designated contractors, contractor's representatives, or other appropriate personnel to implement the following BAAQMD basic dust control measures.

- Water all exposed surfaces (e.g., staging areas, soil piles, graded areas, and unpaved access roads) two times per day during construction and adequately wet demolition surfaces to limit visible dust emissions.
- Cover all haul trucks transporting soil, sand, or other loose materials off the project site.
- Use wet power vacuum street sweepers at least once per day to remove all visible mud or dirt track-out onto adjacent public roads (dry power sweeping is prohibited) during construction of the proposed project.
- Vehicle speeds on unpaved roads/areas shall not exceed 15 miles per hour.
- Complete all areas to be paved as soon as possible and lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time of diesel-powered construction equipment to five minutes and post signs reminding workers of this idling restriction at access points and equipment staging areas during construction of the proposed project
- Maintain and properly tune all construction equipment in accordance with manufacturer's specifications and have a CARB-certified visible emissions evaluator check equipment prior to use at the site.
- Post a publicly visible sign with the name and telephone number of the construction contractor and County staff person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The publicly visible sign shall also include the contact phone number for the Bay Area Air Quality Management District to ensure compliance with applicable regulations.

Effectiveness: These measures would minimize and/or avoid local impacts from fugitive dust.

Implementation: The County shall ensure the San Mateo County History Association includes these measures on all appropriate bid, contract, and engineering and site plan (e.g., building, grading, and improvement plans) documents.

Timing: During construction activities.

Monitoring: The County shall review all appropriate bid, contract, and engineering and site plan documents for inclusion of dust control measures.

Impact BIO-1: Project construction activities during the nesting season could result in nest abandonment if nesting is present in nearby landscaped trees, which would have an adverse impact on bird species and could violate state and federal laws.

Mitigation Measure BIO-1a: *Nesting Bird Survey*. To avoid impacts to nesting birds and violation of state and federal laws pertaining to birds, all construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, vegetation removal, fence installation, demolition, and grading) should occur outside the avian nesting season (generally prior to February 1 or after August 31). If construction and construction noise occurs within the avian nesting season (from February 1 to August 31 or according to local requirements), all suitable habitats located within the project's area of disturbance including staging and storage areas plus a 250-foot buffer (passerines), 500-foot buffer (small raptors, such as accipiters), and 1,000foot buffer (large raptors, such as buteos) around these areas shall be thoroughly surveyed, as feasible, for the presence of active nests by a qualified biologist no more than five days before commencement of any site disturbance activities and equipment mobilization. The bird survey buffer radius may be modified in consultation with CDFW. If project activities are delayed by more than five days, an additional nesting bird survey shall be performed. Active nesting is present if a bird is sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest. The results of the surveys shall be documented. If it is determined that birds are actively nesting within the survey area, Mitigation Measure BIO-1b shall apply. Conversely, if the survey area is found to be absent of nesting birds, Mitigation Measure BIO-1b shall not be required.

Mitigation Measure BIO-1b: If pre-construction nesting bird surveys result in the location of active nests, no site disturbance or mobilization of heavy equipment (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, fence installation, demolition, and grading), shall take place within 250 feet of non-raptor nests, 500-feet of small raptor nests, and 1,000 feet of large raptor nests, or as determined by a qualified biologist in consultation with CDFW, until the chicks have fledged. Monitoring shall be required to ensure compliance with the MBTA and relevant California Fish and Game Code requirements. Monitoring dates and findings shall be documented.

Effectiveness: These measures would minimize impacts on bird species.

Implementation: San Mateo County History Association or its Contractor.

Timing: February 1 through August 31, no more than five days in advance of the start of project construction.

Monitoring: The biologist shall prepare a written record of survey results and implementation of any avoidance/minimization measures to be kept on file at the San Mateo County Planning Department. The biologist shall monitor any active nests to determine when young have matured sufficiently to have fledged.

Impact BIO-2: Tree removal and/or demolition could result in the removal or disturbance of bat roost habitat and may result in significant impacts to bat populations if an occupied or perennial (but unoccupied) maternity or colony roost is disturbed or removed.

Mitigation Measure BIO-2: To avoid impacting breeding, roosting, or hibernating bats protected by CDFW, pre-construction surveys of potential bat roost habitat will be performed in all trees and buildings subject to removal or demolition and within a 50-foot buffer for evidence of maternal or colony bat roosts (e.g., guano accumulation, acoustic, or visual detections) within 48 hours of project disturbance. If an occupied maternity or colony roost is detected or evidence of bat occupancy is found, CDFW will be consulted to determine the appropriate mitigation measures, which may include exclusion prior to removal if the roost cannot be avoided, a buffer zone, seasonal restrictions on construction work, and/or construction noise reduction measures.

Effectiveness:	These measures would minimize impacts on bat species.
Implementation:	San Mateo County History Association or its Contractor.
Timing:	Year-round, no more than 48 hours in advance of the start of project construction.
Monitoring:	The biologist shall prepare a written record of survey results and implementation of any avoidance/minimization measures to be kept on file at the San Mateo County Manager's Office, Project Development Unit office. The biologist shall coordinate with CDFW to determine the appropriate mitigation and monitoring if a roost is found.

Impact CUL-1: The Lathrop House could be accidentally damaged during construction.

Mitigation Measure CUL-1: Prior to the start of project construction, the construction contractor shall place temporary construction fencing around the Lathrop House to protect it from accidental damage from construction equipment or materials. The fencing shall be of suitable strength to provide protection from vehicle damage and placed in a location to prevent damage from occurring.

Effectiveness:	The measure would reduce impacts to the Lathrop House to less than significant.
Implementation:	San Mateo County History Association and its Contractor.
Timing:	Prior to the start of project construction and ongoing throughout construction.
Monitoring:	The measure shall be placed on all construction bid documents. Once erected the suitable of the fencing shall be approved by the County.

Impact CUL-2: Potential disturbance of unknown prehistoric or historic cultural resources, including human remains, during project construction.

Mitigation Measure CUL-2A: Due to the moderate to high potential of historic and prehistoric archaeological remains existing at the project site, Archaeological Sensitivity shall be carried out prior to ground moving activity by a qualified archaeologist for all construction personnel who will engage in or supervise ground disturbing activities on the site.

Mitigation Measure CUL-2B: In the event archaeological remains from either a historic or prehistoric period are discovered (or have been suspected to have been discovered) during project construction, all ground disturbing work within a 100' radius buffer of the discovery will cease. An archaeologist who meets the Secretary of the Interior's Standards for Archaeology will be brought in to assess the discovery before any additional ground disturbing work within the 100' buffer will be allowed to continue. No further ground disturbing work will be allowed to continue until the archaeologist has fully evaluated the find and permits work to continue. Dependent on the evaluation by the archaeologist, archaeological excavation and recordation may be required

before construction can continue. Archaeological monitoring will be enacted on the site at the discretion of the archaeologist.

Should the newly discovered artifacts be determined to be Native American in origin, Native American Tribes/Representatives will be contacted and consulted as directed by the NAHC and Native American construction monitoring will be initiated. All Native American artifacts and finds suspected to be Native American in nature are to be considered as significant tribal cultural resources until the County has determined otherwise with the consultation of a qualified archaeologist and local tribal representative(s) as directed by the NAHC.

In the event of an archaeological discovery, the County shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. An archaeological report will be written detailing all archaeological finds and submitted to the County and the Northwest Information Center.

Effectiveness: These measures would minimize impacts to archaeological resources.

Implementation: San Mateo County History Association and its Contractor.

Timing: Prior to the start of project construction and ongoing throughout ground moving activity.

Monitoring: The archaeologist shall, if applicable, prepare a written record of survey results, archaeological discovery, and evaluation methodology to be submitted to the County and the Northwest Information Center. The Native American monitor shall, if applicable, record tribal resources for submittal to the Native American Heritage Commission.

DETERMINATION (to be completed by the Lead Agency).

On the basis of this initial evaluation:

	I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Planning Department.
X	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 of the mitigation measures in the discussion have been included as part of the proposed project. 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.

(Signature)

Date

(Title)

_ND - Initial Study Checklist (07-17-19).dotx

San Mateo County History Museum
Taube Family Carriage House Addition

Appendix A: Project Site Plans

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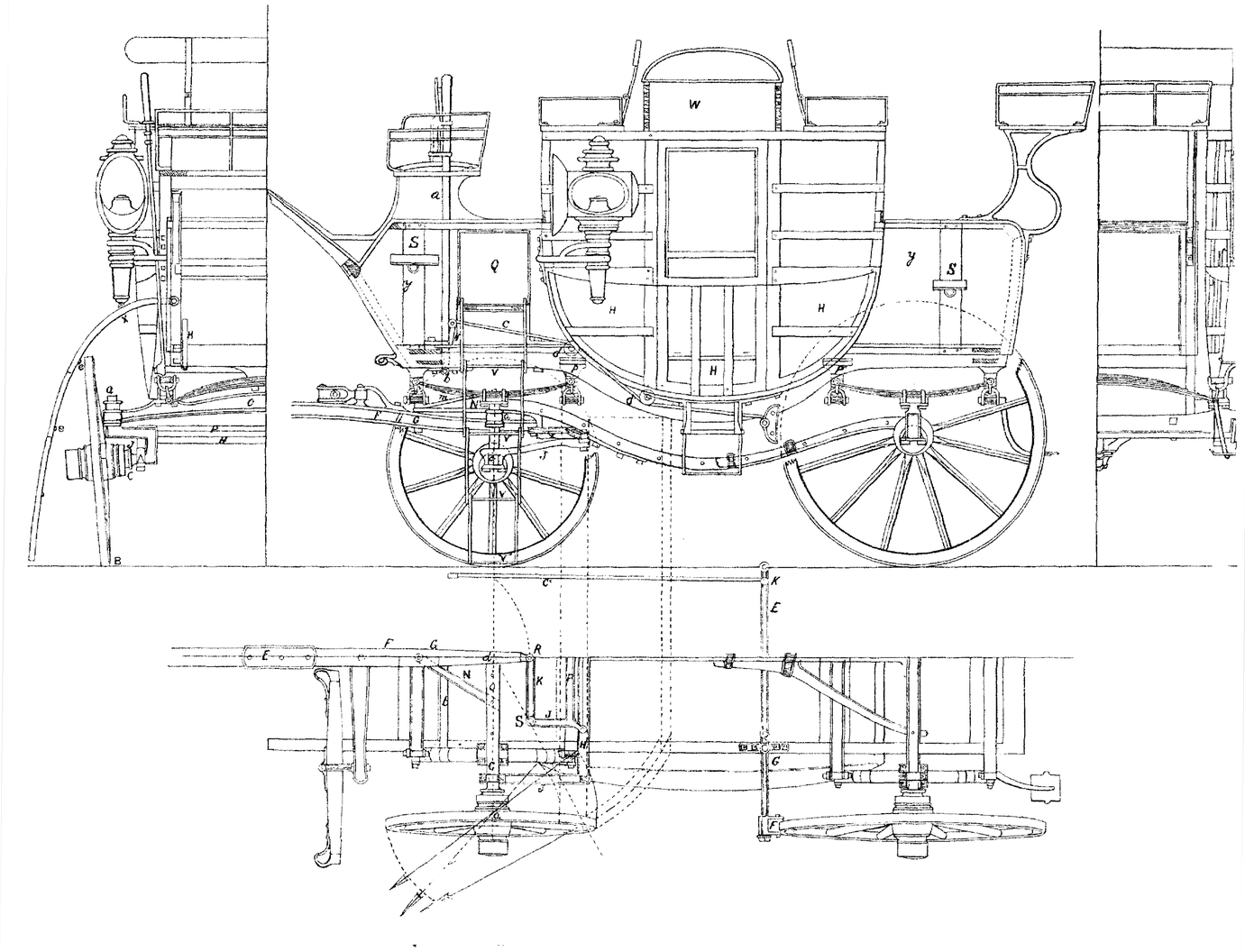

TAUBE FAMILY CARRIAGE HOUSE
AT
SAN MATEO COUNTY HISTORY MUSUEM

SHEET INDEX

PROJECT INFORMATION
SCOPE OF WORK:
ADDITION TO EXISTING MUSEUM TO INCLUDE:
NEW GALLERIES, RESTROOMS, EVENT SPACE, CATERING KITCHEN, STAIRS & ELEVATOR.

FLOOR AREA (GROSS TO EXTERIOR FACE OF WALL)	
EXISTING COURTHOUSE	43,900 SF
(3 floors: 14633 each)	
ANNEX	12,640 SF
(2 floors: 6320 each)	
EXISTING TOTAL	56,540 SF
NEW GALLERY ADDITION	14,001 SF
GROUND FLOOR	4,667 SF
FIRST FLOOR	4,667 SF
SECOND FLOOR	4,667 SF
PROPOSED TOTAL	70,541 SF

ADDITIONAL BUILDING ON PROPERTY:
LATHROP HOUSE 3393 SF
(1ST FLOOR 1808 & 2ND FLOOR 1585)

PROJECT OWNER:
SAN MATEO COUNTY HISTORICAL ASSOCIATION
2200 BROADWAY
REDWOOD CITY, CA 94063
CONTACT: MITCH POSTEL
PHONE: 650-299-0104

DESIGN TEAM:
ARCHITECT:
ADOLPH S. ROSEKRANS, INC.
980 RUNNYMEDE ROAD
WOODSIDE, CA 94062
CONTACT: ADOLPH ROSEKRANS
PHONE: 650-851-7201

ENGINEER:
RINNE PETERSON, INC.
1121 SAN ANTONIO ROAD, SUITE C200
PALO ALTO, CA 94303
CONTACT: AARON KVAMME
PHONE: 650-428-2861

CONTRACTOR:
GONSALVES & STRONCK CONSTRUCTION CO.
1000 WASHINGTON STREET
SAN CARLOS, CA 94070
CONTACT: BILL STRONCK
PHONE: 650-802-2960

Revision

LICENSED ARCHITECT
ADOLPH S. ROSEKRANS
No. C-3994
12-31-19
STATE OF CALIFORNIA

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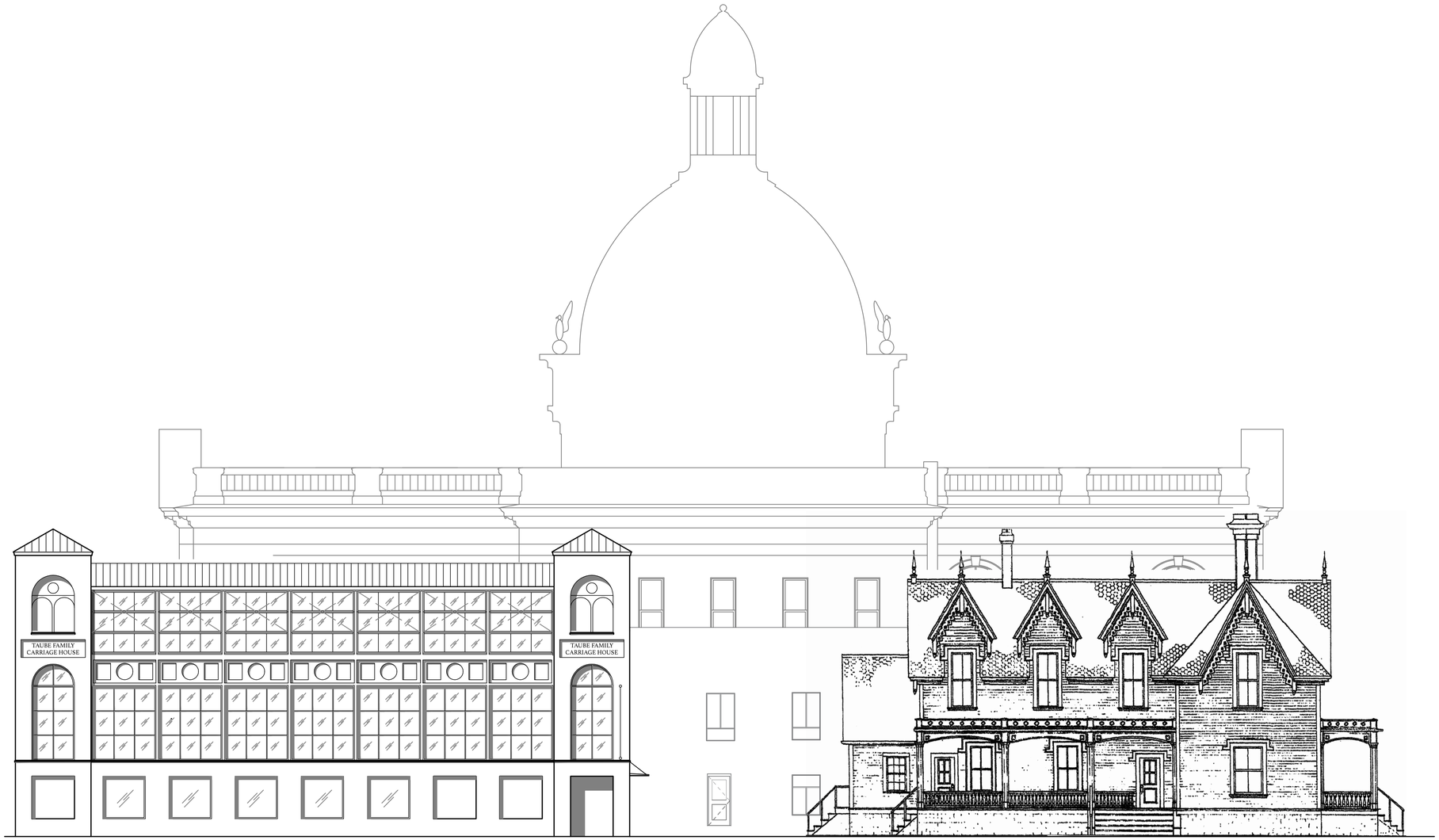
rosekrans@pacbell.net

COVER SHEET

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/16" = 1'-0"
Job 1702

G0.0
Sheet



1 NORTH SITE ELEVATION (MARSHALL STREET fence is not shown)
1/8" = 1'-0"
0 4' 8' 16'

Revision

LICENSED ARCHITECT
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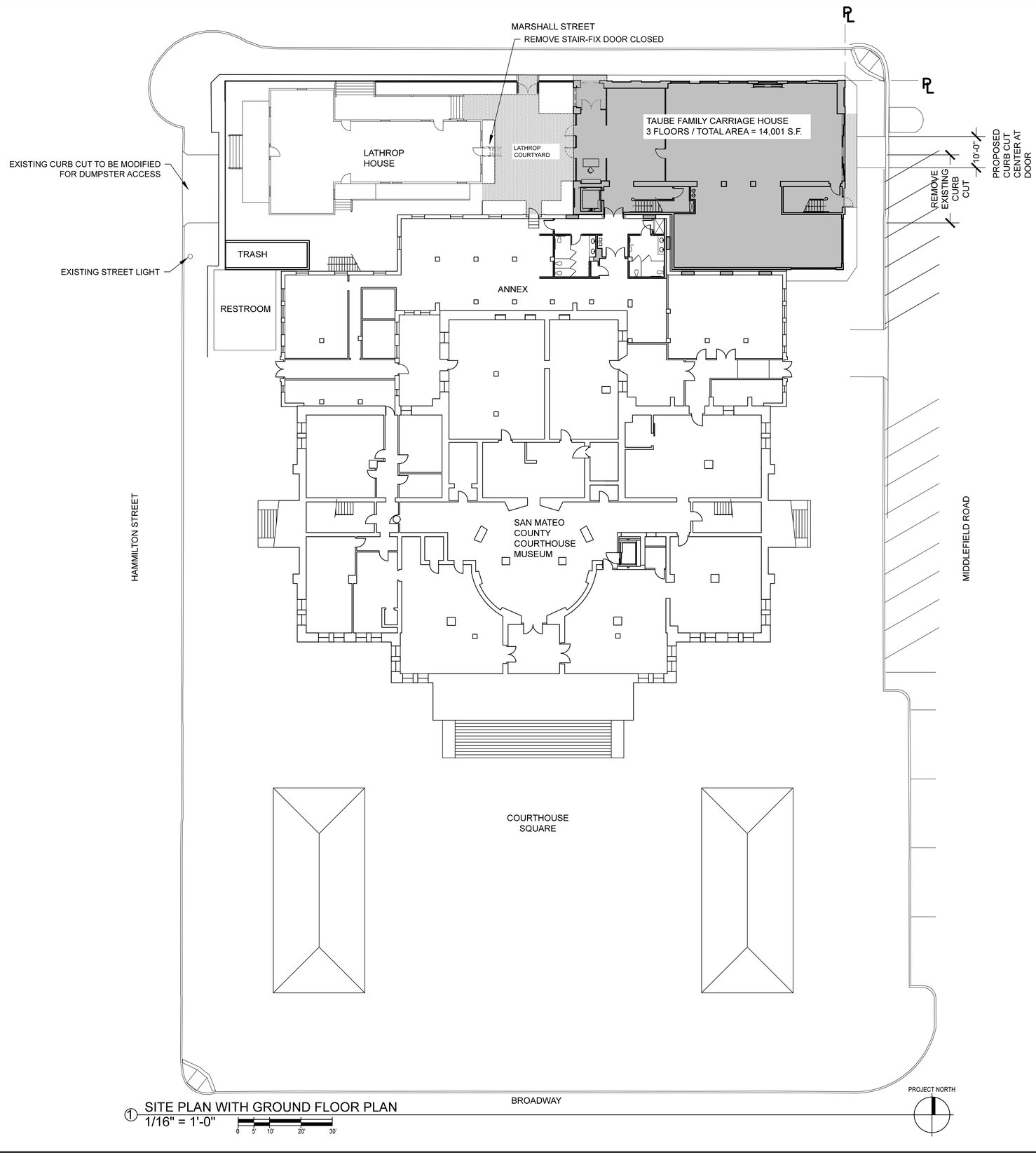
SITE ELEVATION AT MARSHEL STREET

TAUBE FAMILY CARRIAGE GALLERY
San Mateo County History Museum

San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N.
Job 1702

A2.0
Sheet



① SITE PLAN WITH GROUND FLOOR PLAN
1/16" = 1'-0"
0 5' 10' 20' 30'

Revision

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SITE PLAN
COURTHOUSE BLOCK
WITH GROUND FLOOR PLAN

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum

San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/16" = 1'-0"
Job 1702

A2.1
Sheet

MARSHALL STREET

HAMMILTON STREET

MIDDLEFIELD ROAD

LATHROP HOUSE

LATHROP COURTYARD

TAUBE FAMILY CARRIAGE HOUSE FIRST FLOOR

NEW TRASH ENCLOSURE

EXISTING RESTROOM

EXISTING ANNEX FIRST FLOOR- FUTURE GALLERY

EXISTING ANNEX FIRST FLOOR- FUTURE GALLERY

EXISTING OPENINGS

LIGHT WELL

EXISTING SAN MATEO COUNTY COURTHOUSE MUSEUM

LIGHT WELL

EXISTING ARCHIVE LIBRARY TO REMAIN

D.F.

D.F.

PROJECT NORTH

① SITE PLAN WITH FIRST FLOOR PLAN
1/8" = 1'-0"

0 4' 8' 16'

Revision

LICENSED ARCHITECT
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ENLARGED SITE PLAN WITH FIRST FLOOR PLAN

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum

San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019

Scale U.O.N. 1/8" = 1'-0"

Job 1702

A2.2

Sheet

MARSHALL STREET

EXISTING SIDEWALK

PLANTER

PLANTER

PLANTER

PLANTER

ARBOR GARDEN ENTRANCE

ROLL UP SECURITY GRILL

ENTRANCE 104

6'-0" METAL SCREEN

SPANDREL +3' A.F.F. W/GLASS ABOVE TO STRUCTURE

SPANDREL +3' A.F.F. W/GLASS ABOVE TO STRUCTURE

COURTYARD 29'-0"X42'-0" NEW BRICK PAVERS

TAUBE LEGACY GALLERY 101

CARRIAGE GALLERY 102

TICKET DESK 105

LATHROP HOUSE REMOVE STAIR & DOOR

SPANDREL +3' A.F.F. W/GLASS ABOVE TO STRUCTURE

SPANDREL +3' A.F.F. W/GLASS ABOVE TO STRUCTURE

SLIDING/STACKING GLASS DOOR FOR EXHIBIT DELIVERY

NEW BRICK PAVERS

EXISTING SIDEWALK

STAIR 106

ELEV 107

JAN. 108

STAIR 109

UP

UP

PLANTER

EXISTING WINDOWS TO REMAIN - TYPICAL

EXISTING DOOR TO REMAIN

REMOVE WINDOWS & INFILL OPENINGS TYPICAL

CARRIAGE GALLERY 103

HALL 111

WOMENS 112

MENS 110

SAN MATEO COUNTY HISTORY MUSEUM

ANNEX

EXISTING SIDEWALK

PROJECT NORTH

① GROUND FLOOR PLAN: 4,667 GROSS S.F. NEW CARRIAGE GALLERY; NEW RESTROOMS AT EXISTING ANNEX: 690 S.F.
1/4" = 1'-0"

0 1' 2' 4' 8'

Revision

LICENSED ARCHITECT
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GROUND FLOOR PLAN

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum

San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019

Scale U.O.N. 1/4" = 1'-0"

Job 1702

A3.0

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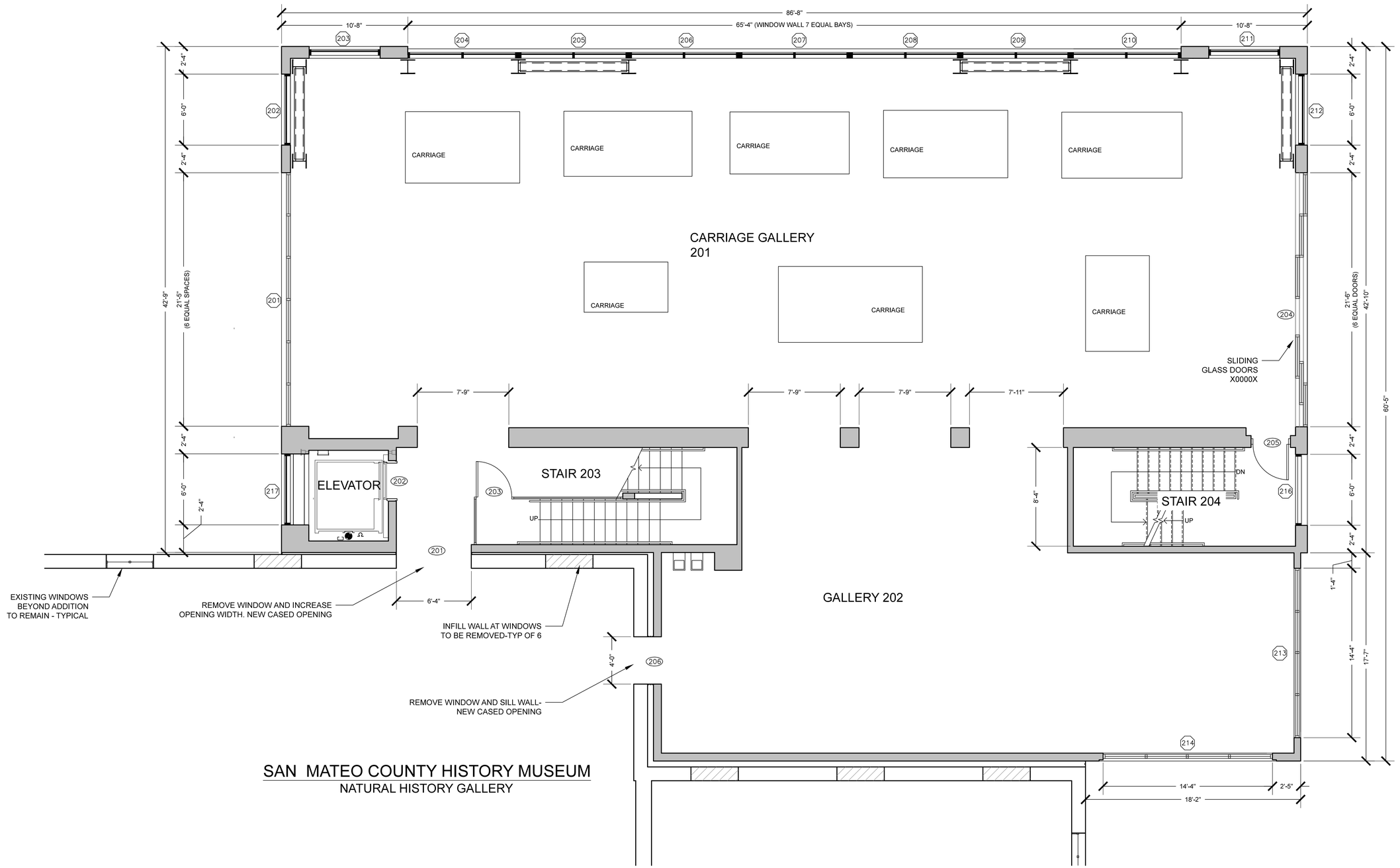

SAN MATEO COUNTY HISTORY MUSEUM
NATURAL HISTORY GALLERY

1 FIRST FLOOR PLAN 4,667 GROSS S.F.
1/4" = 1'-0"
0 1' 2' 4' 8'

PROJECT NORTH

Revision

LICENSED ARCHITECT
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FIRST FLOOR PLAN

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/4" = 1'-0"
Job 1702

A3.1
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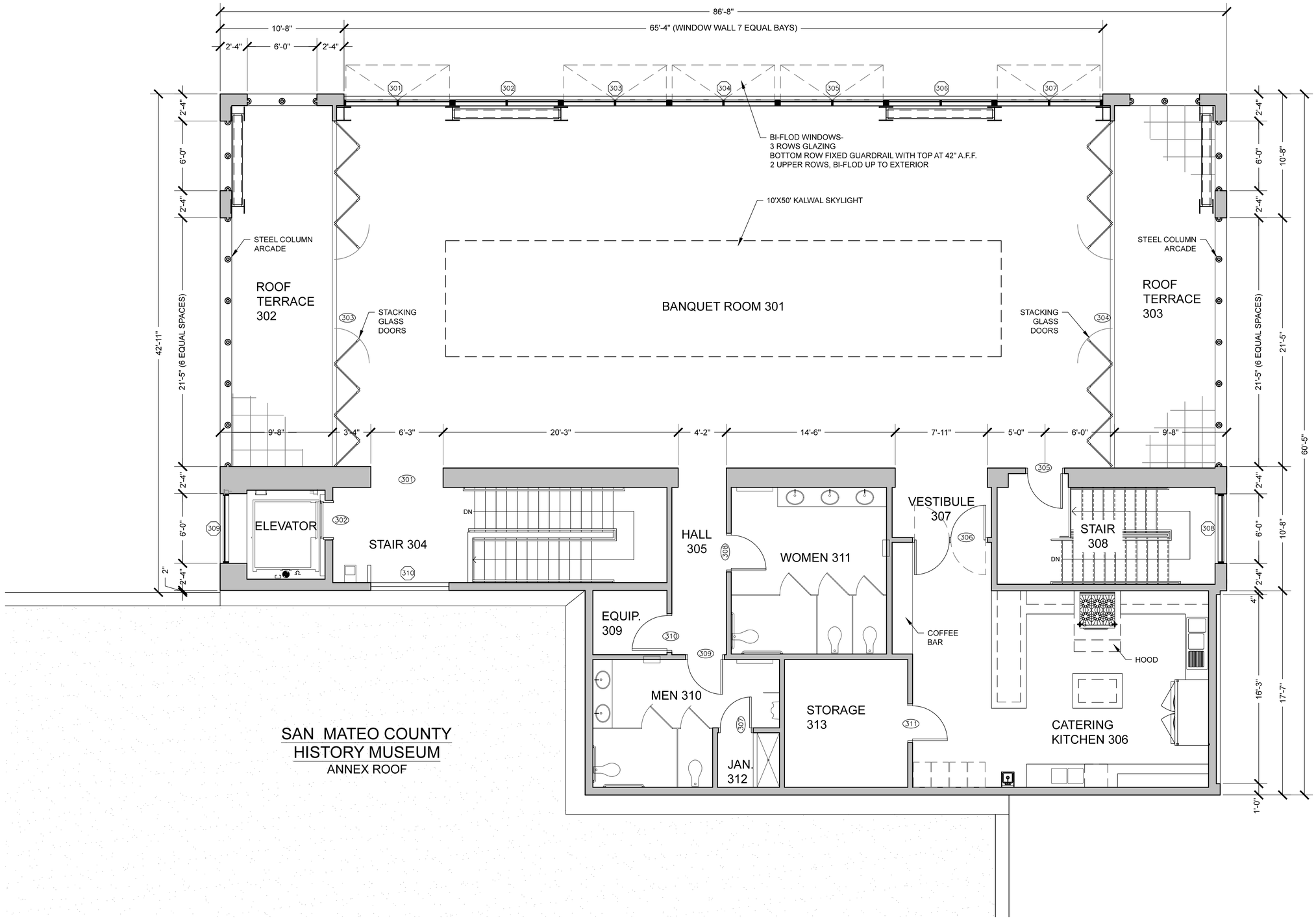

① SECOND FLOOR PLAN 4,667 GROSS S.F.
1/4" = 1'-0"

PROJECT NORTH

Revision

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SECOND FLOOR PLAN

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/4" = 1'-0"
Job 1702

A3.2
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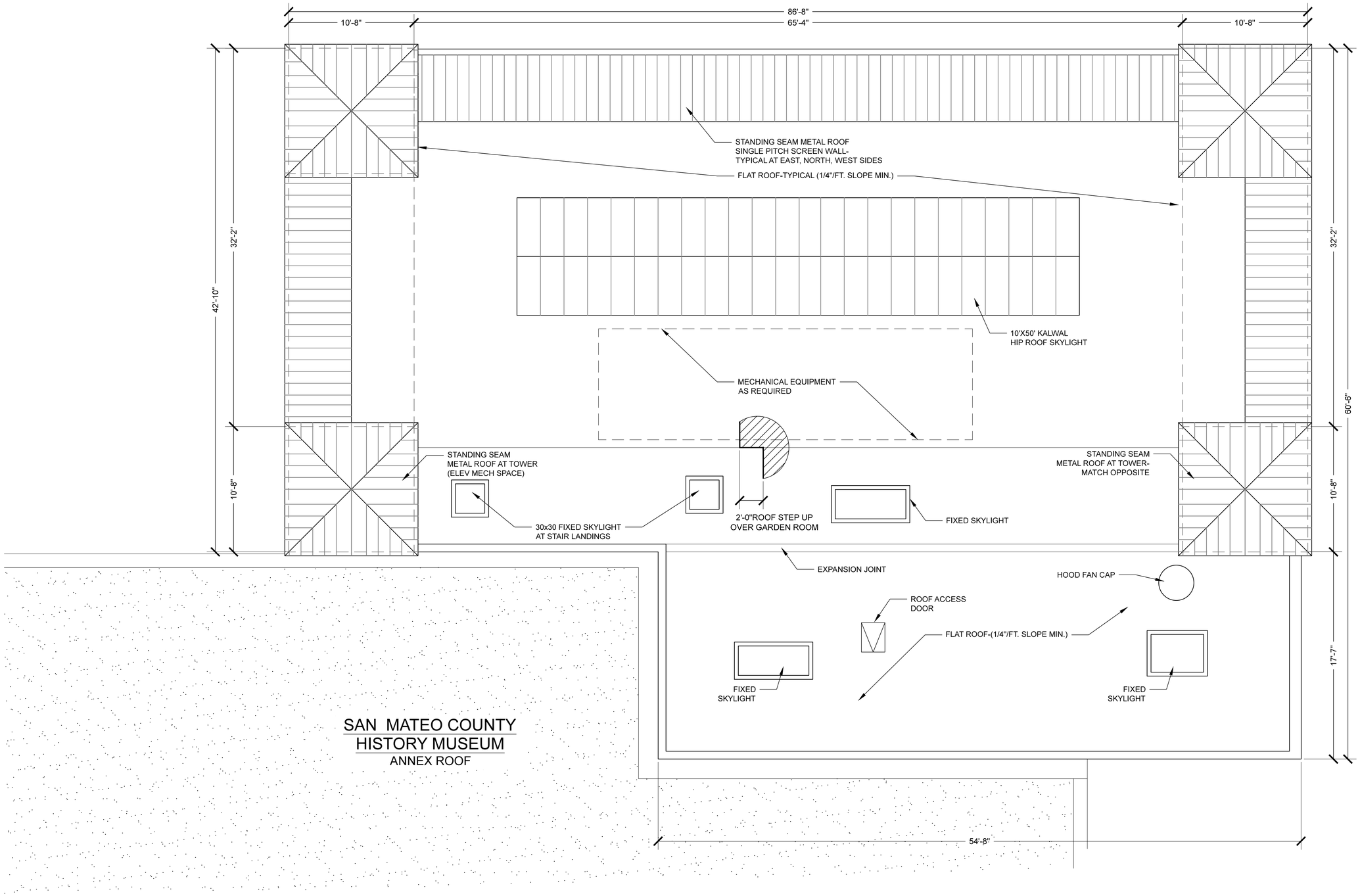

1 ROOF PLAN
1/4" = 1'-0"
0 1' 2' 4' 8'

PROJECT NORTH

Revision

LICENSED ARCHITECT
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ROOF PLAN

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/4" = 1'-0"
Job 1702

A3.3
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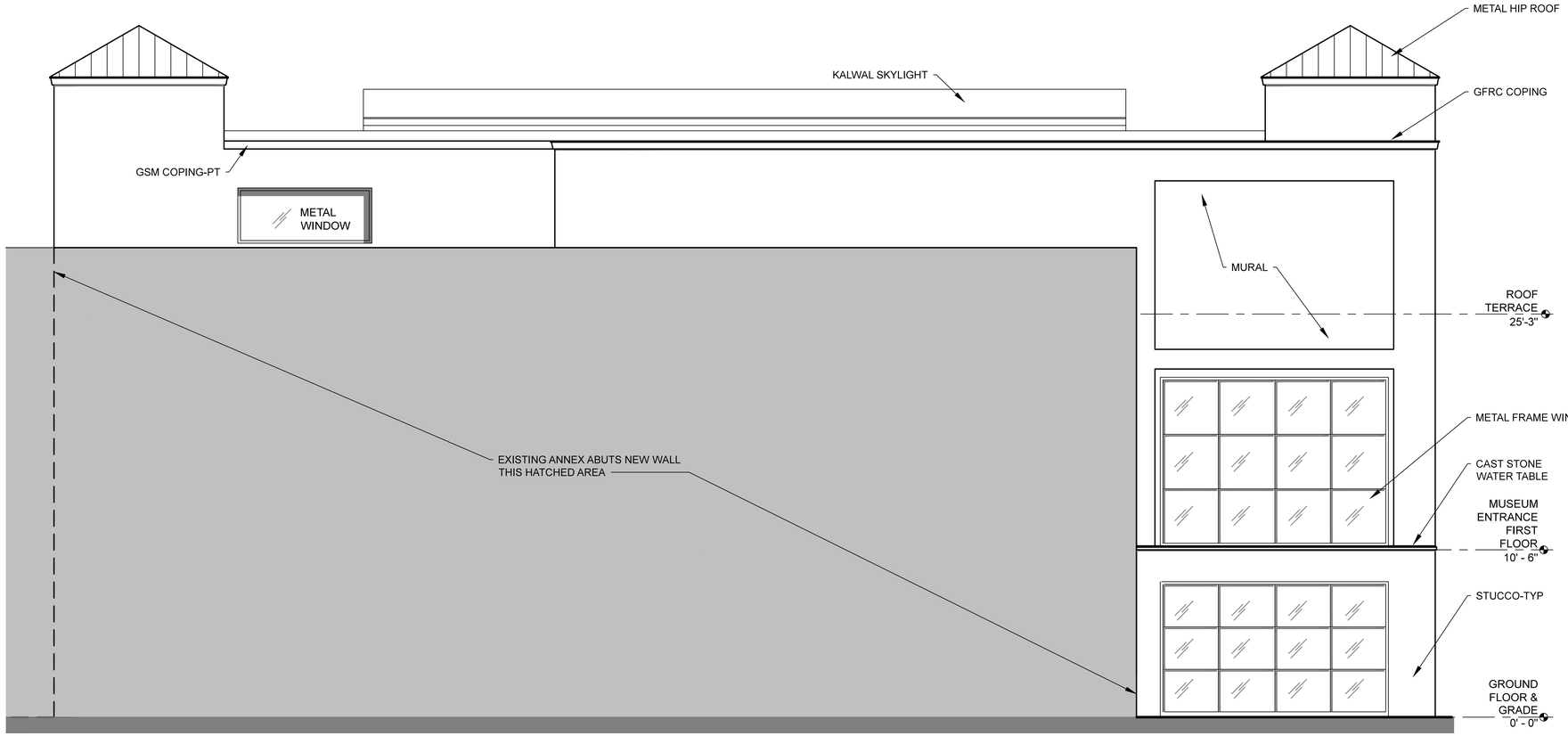

① SOUTH ELEVATION
1/4" = 1'-0"

0 1' 2' 4' 8'

Revision

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SOUTH ELEVATION

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/4" = 1'-0"
Job 1702

A4.0
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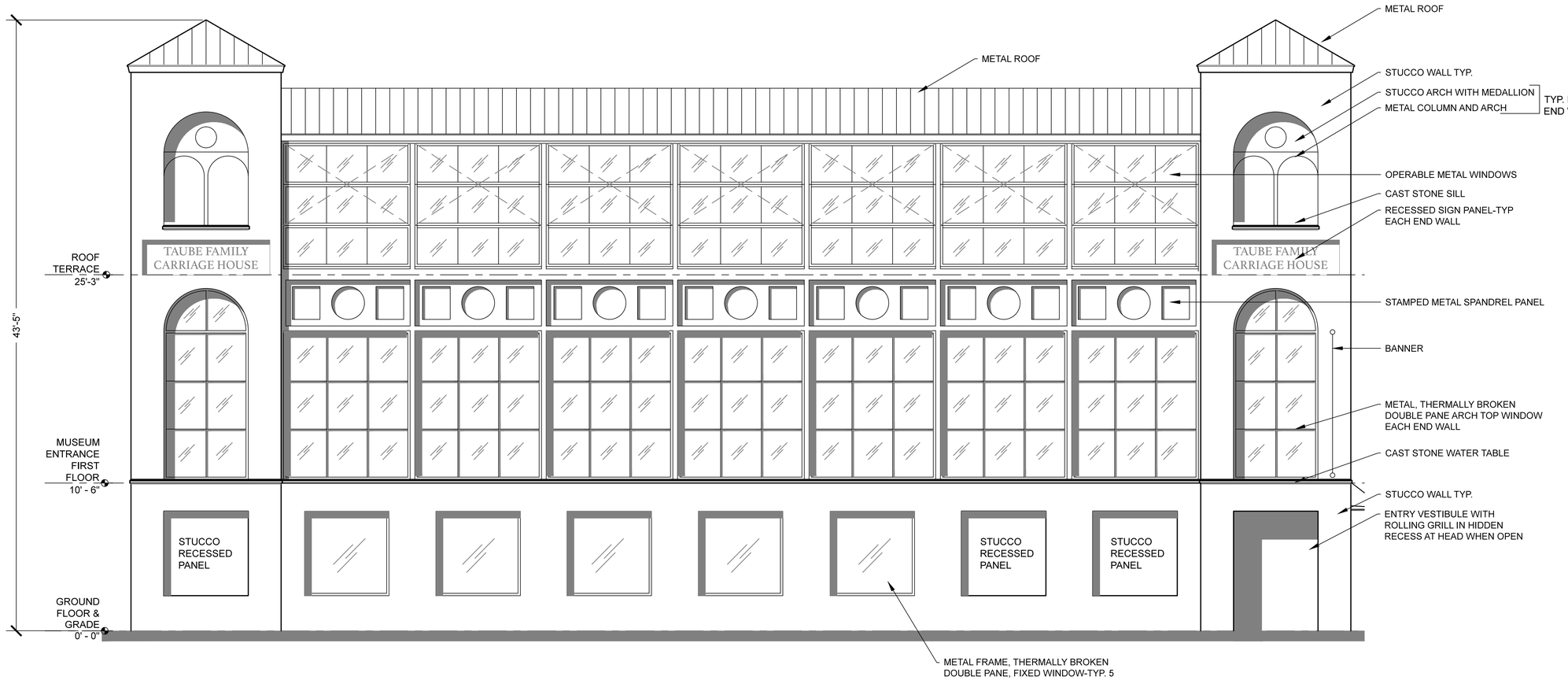

NORTH ELEVATION (MARSHALL STREET)

1/4" = 1'-0"

0 1' 2' 4' 8'

Revision

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NORTH ELEVATION

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum

San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

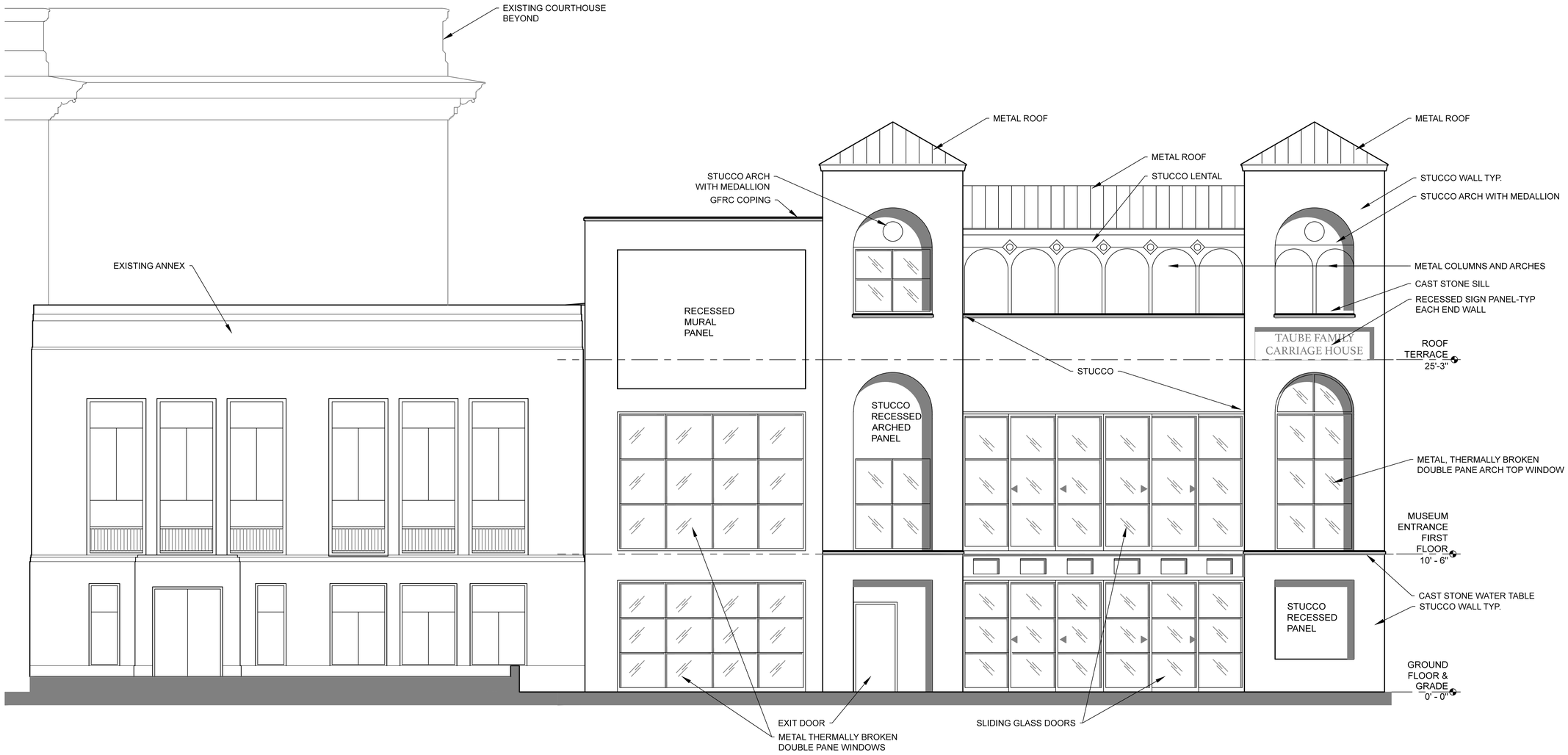
Date 11/07/2019

Scale U.O.N. 1/4" = 1'-0"

Job 1702

A4.1

Sheet



EAST ELEVATION (MIDDLEFIELD ROAD)

1/4" = 1'-0"

0 1' 2' 4' 8'

Revision

LICENSED ARCHITECT
ADOLPH S. ROSEKRANS
No. C-3994
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EAST ELEVATION

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

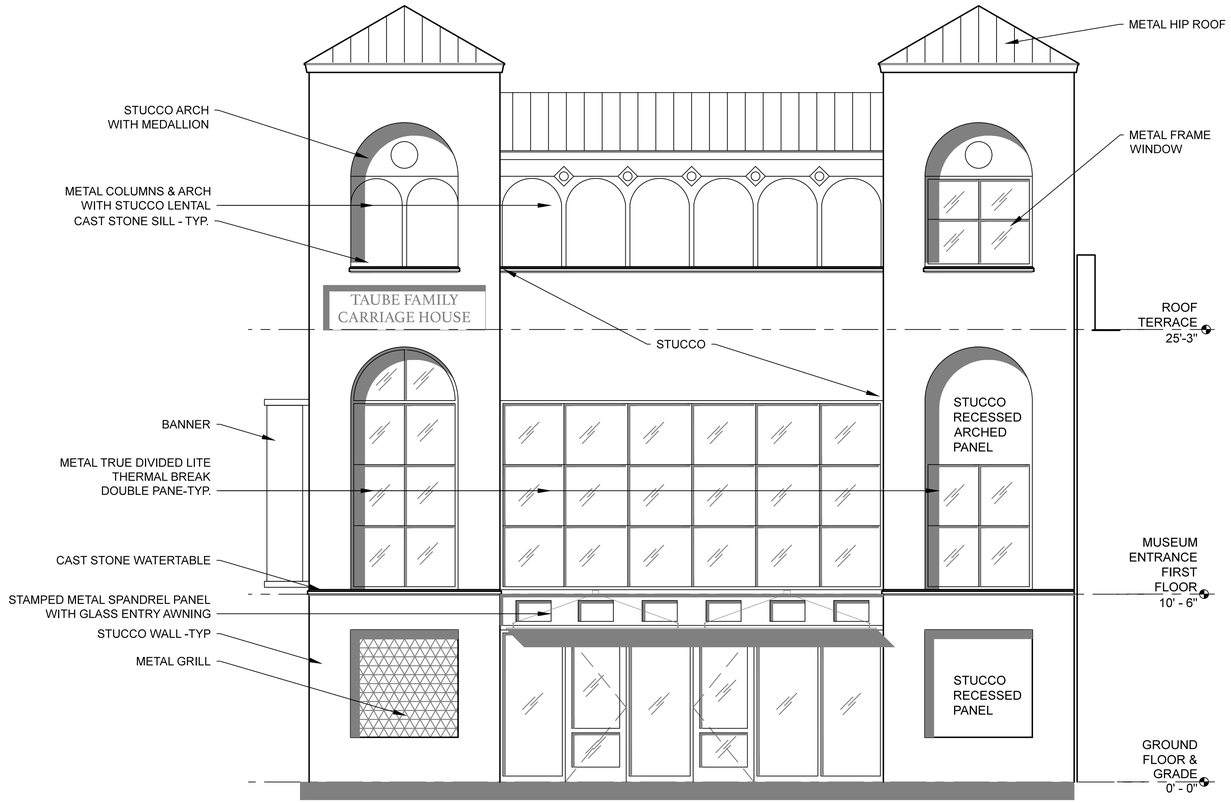
Date 11/07/2019

Scale U.O.N. 1/4" = 1'-0"

Job 1702

A4.2

Sheet



WEST ELEVATION
1/4" = 1'-0"
0 1' 2' 4' 8'

Revision

LICENSED ARCHITECT
ADOLPH S. ROSEKRANS
No. C-3994
12-31-19
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WEST ELEVATION

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/4" = 1'-0"
Job 1702

A4.3
Sheet

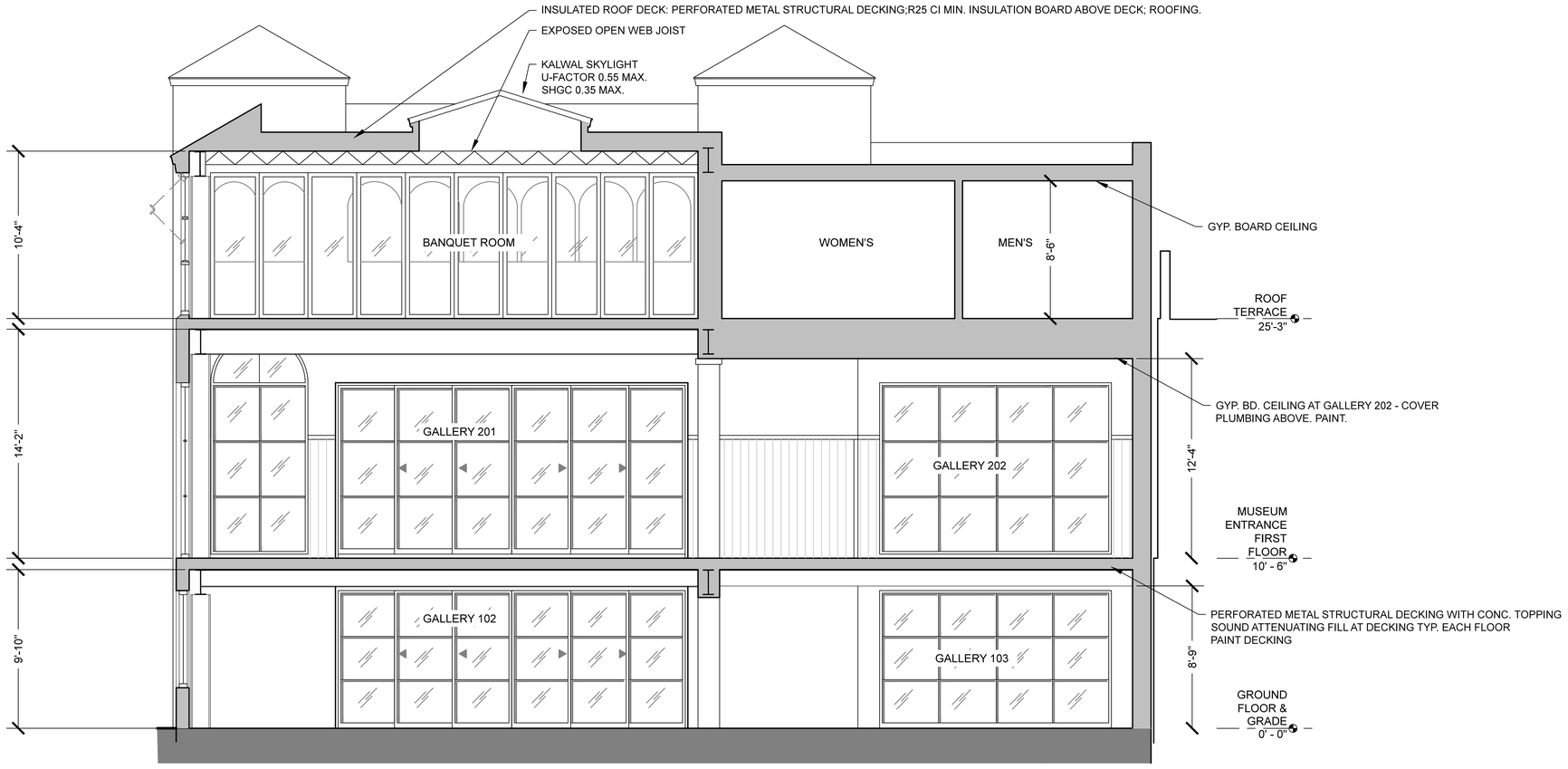
WINDOW ENERGY REQUIREMENT:
(INCLUDING ALL WINDOWS AND GLAZED DOORS)
CLIMATE ZONE 3 (IECC)

U-FACTOR:
FIXED - 0.46 MAX.
OPERABLE - 0.60 MAX.
DOORS - 0.77 MAX.

SGHC:
SOUTH/EAST/WEST
PF < 0.2 = 0.25
0.2 ≤ PF > 0.5 = 0.30
PF ≥ 0.5 = 0.40
NORTH
PF < 0.2 = 0.33
0.2 ≤ PF > 0.5 = 0.37
PF ≥ 0.5 = 0.40

PF = PROJECTION FACTOR

NOTE: PROJECT SHALL COMPLY WITH 2019 CALIFORNIA ENERGY CODE



CROSS SECTION AT GALLERY (LOOKING EAST)
1/4" = 1'-0"
0 1' 2' 4' 8'

Revision

LICENSED ARCHITECT
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12-31-19
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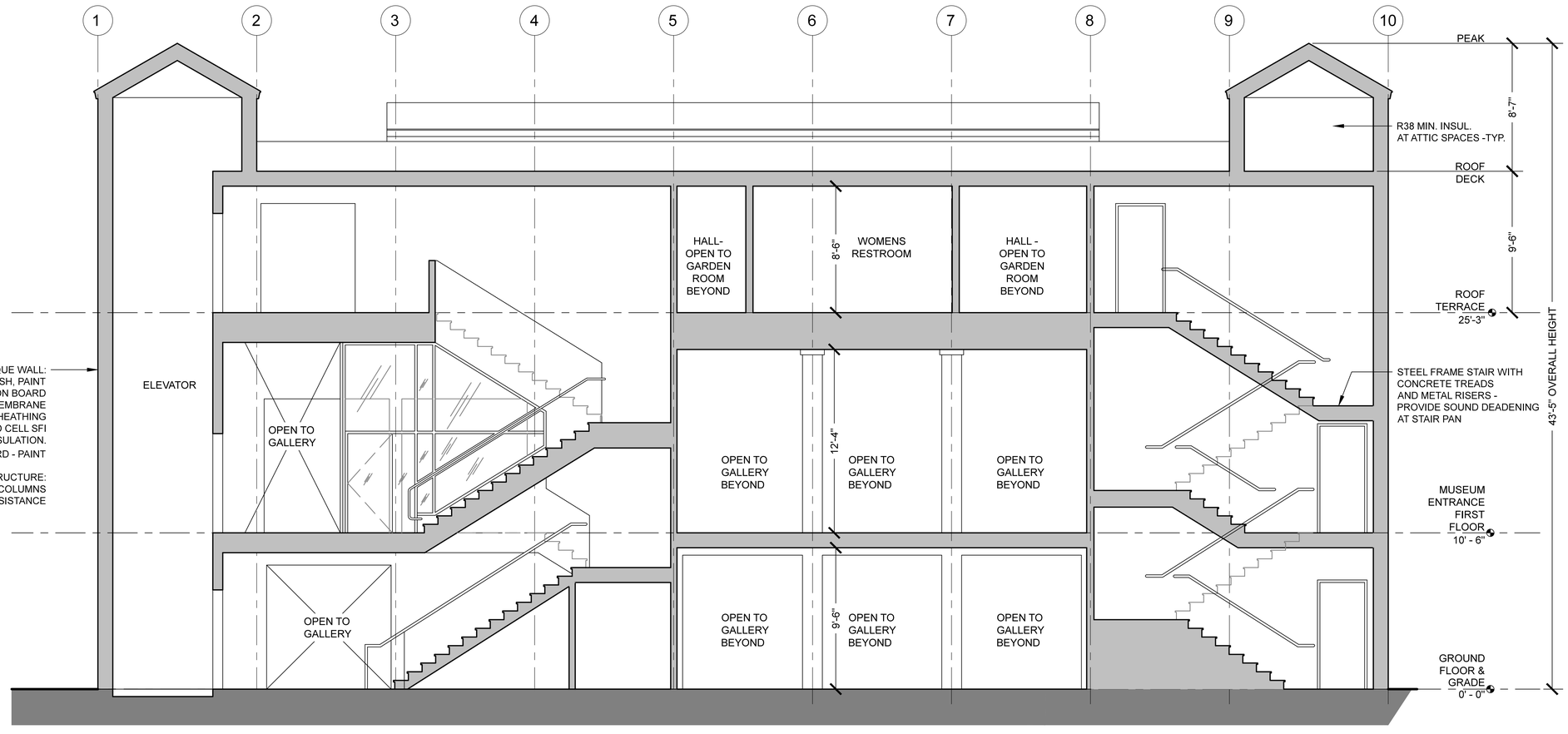
CROSS SECTION AT GALLERIES

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/4" = 1'-0"
Job 1702

A4.4
Sheet



② SECTION AT STAIR
1/4" = 1'-0"
0 1' 2' 4' 8'

Revision

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ADOLPH S. ROSEKRANS
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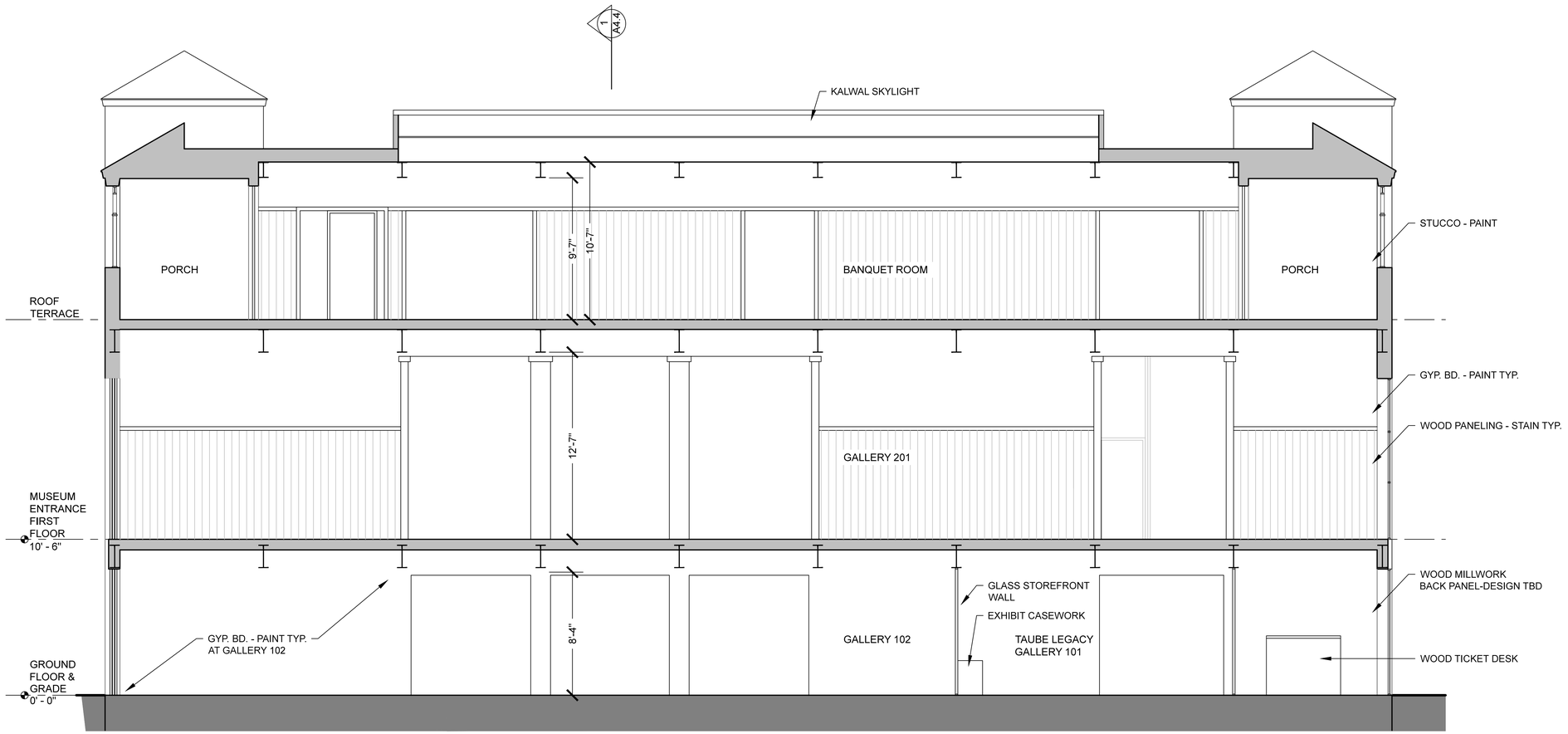
STAIR SECTION

TAUBE FAMILY CARRIAGE HOSUE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/4" = 1'-0"
Job 1702

A4.5
Sheet



SECTION AT GALLERIES (LOOKING SOUTH)

1/4" = 1'-0"

0 1' 2' 4' 8'

Revision

LICENSED ARCHITECT
ADOLPH S. ROSEKRANS
No. C-3994
12-31-19
STATE OF CALIFORNIA

Architect

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Woodside, CA 94062

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Fax 650.851.7202
rosekrans@pacbell.net

GALLERY SECTION

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum

San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019

Scale U.O.N. 1/4" = 1'-0"

Job 1702

A4.6

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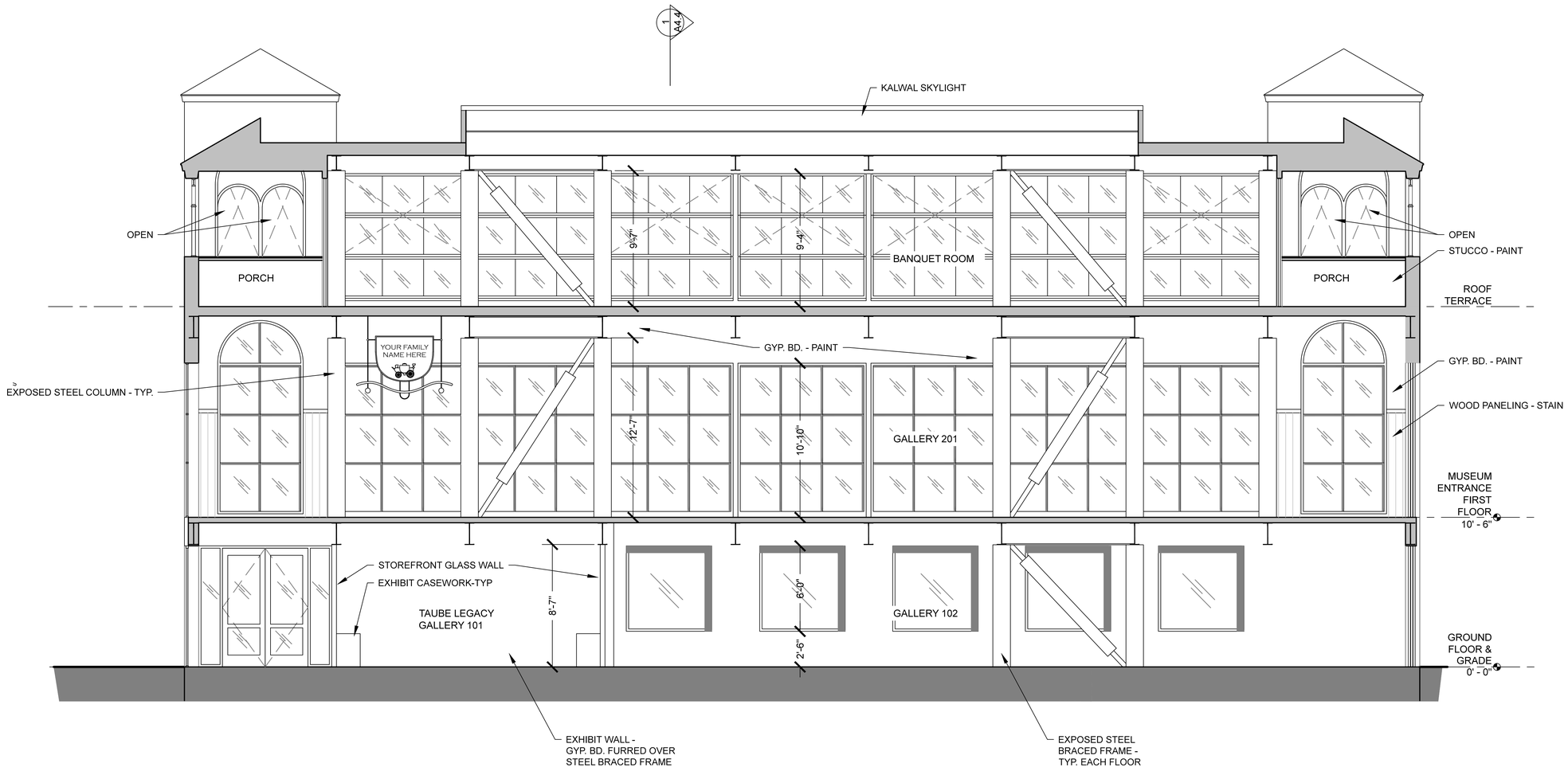

SECTION AT GALLERIES (LOOKING NORTH)

1/4" = 1'-0"

0 1' 2' 4' 8'

Revision

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Date 11/07/2019

Scale U.O.N. 1/4" = 1'-0"

Job 1702

A4.7

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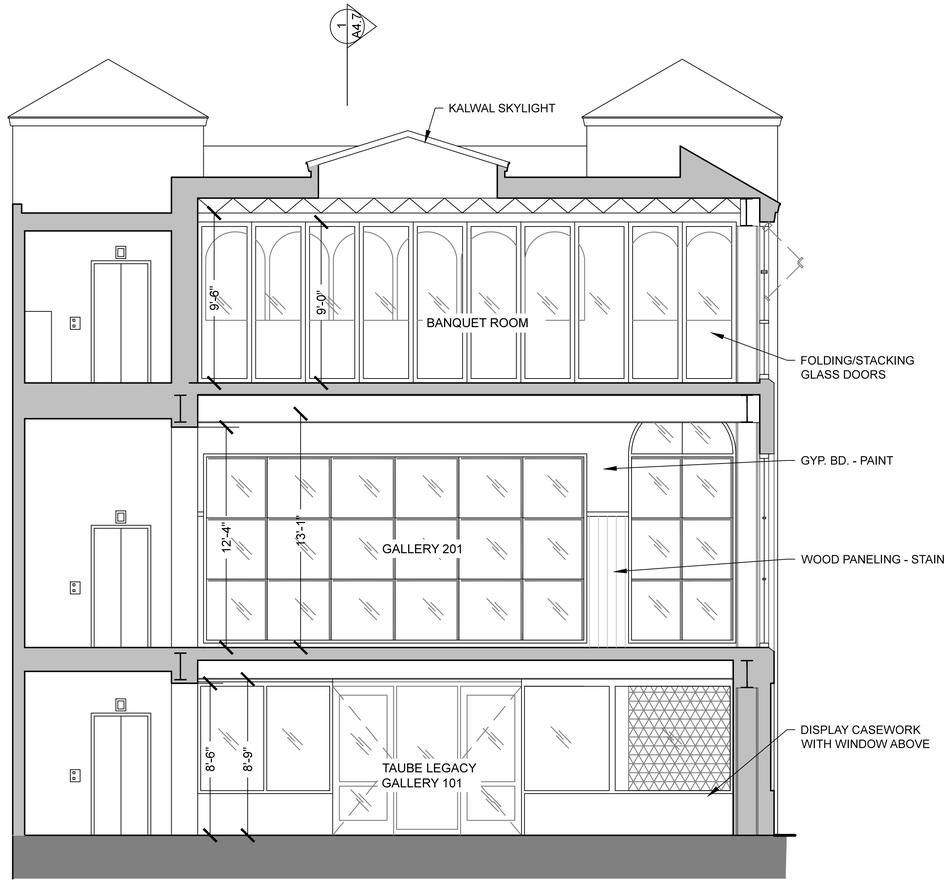

CROSS SECTION AT GALLERY (LOOKING WEST)

1/4" = 1'-0"

0 1' 2' 4' 8'

Revision

LICENSED ARCHITECT
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GALLERY SECTION

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San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019

Scale U.O.N. 1/4" = 1'-0"

Job 1702

A4.8

Sheet

MARSHALL STREET

EXISTING SIDEWALK

10'-8"
2'-4"
6'-0"
112'-0"
ROLL UP SECURITY GRILL
86'-8"
65'-4"
10'-8"
℄
℄

ENTRANCE
104

COURTYARD
29'-0"X42'-0"

TAUBE
LEGACY
GALLERY
101

CARRIAGE GALLERY 102

TICKET
DESK
105

42'-9"
21'-5"
10'-8"
10'-8"
10'-8"
60'-5"
EXISTING SIDEWALK
21'-6"
10'-8"

STAIR 106

ELEV 107

JAN.
108

STAIR 109

CARRIAGE GALLERY 103

HALL 111

WOMENS
112

MENS 110

1'-4"
14'-4"
17'-7"
2'-0"
14'-4"
2'-5"
18'-2"
EXISTING SIDEWALK

SAN MATEO COUNTY HISTORY MUSEUM
ANNEX

PROJECT NORTH

① GROUND FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"
0 1' 2' 4' 8'

Revision

LICENSED ARCHITECT
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GROUND FLOOR REFLECTED CEILING PLAN

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum

San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/4" = 1'-0"
Job 1702

A7.0
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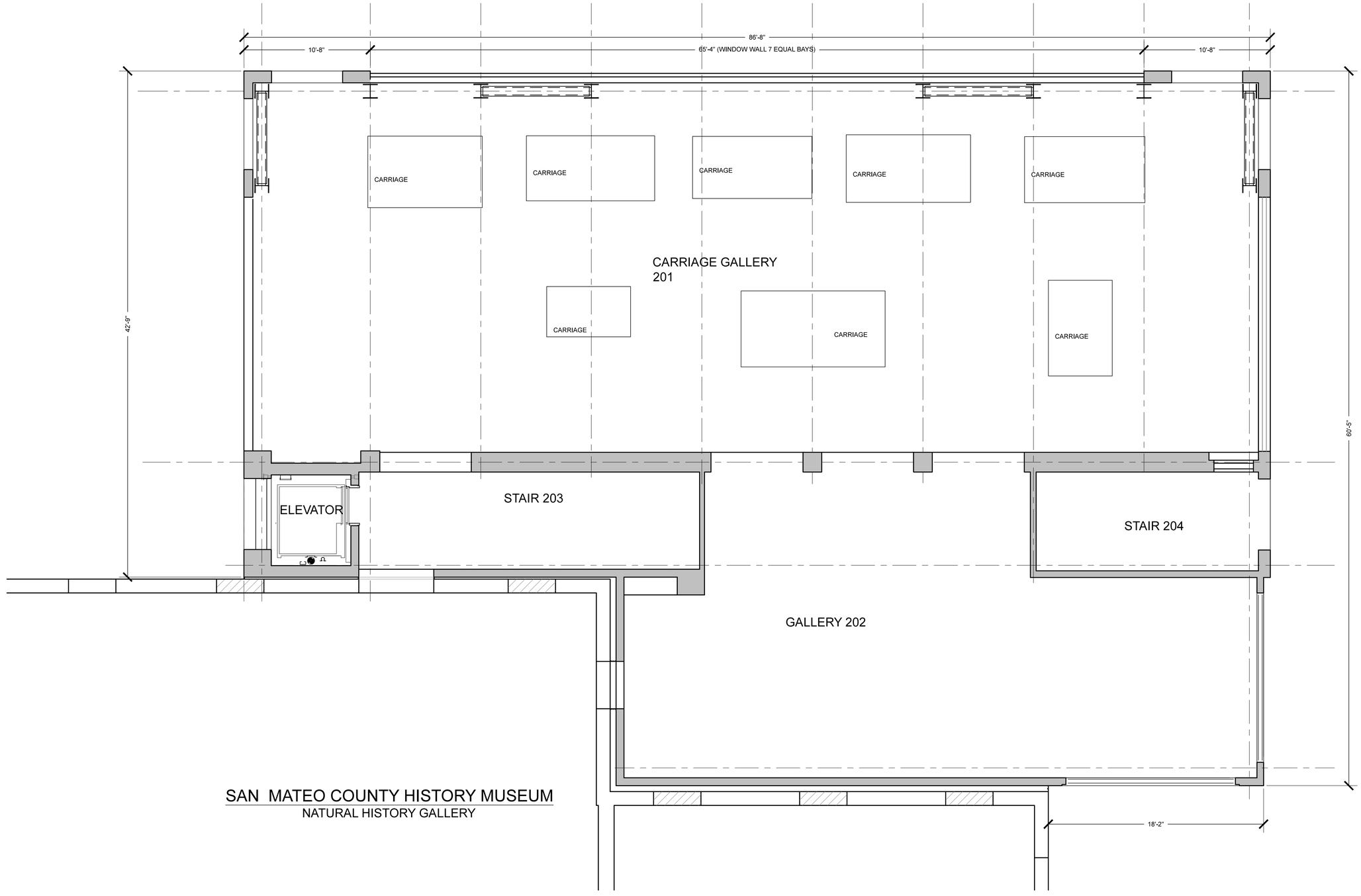

SAN MATEO COUNTY HISTORY MUSEUM
NATURAL HISTORY GALLERY

1 FIRST FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"
0 1' 2' 4' 8'

PROJECT NORTH

Revision

LICENSED ARCHITECT
ADOLPH S. ROSEKRANS
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FIRST FLOOR REFLECTED CEILING PLAN

TAUBE FAMILY CARRIAGE HOUSE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/4" = 1'-0"
Job 1702

A7.1
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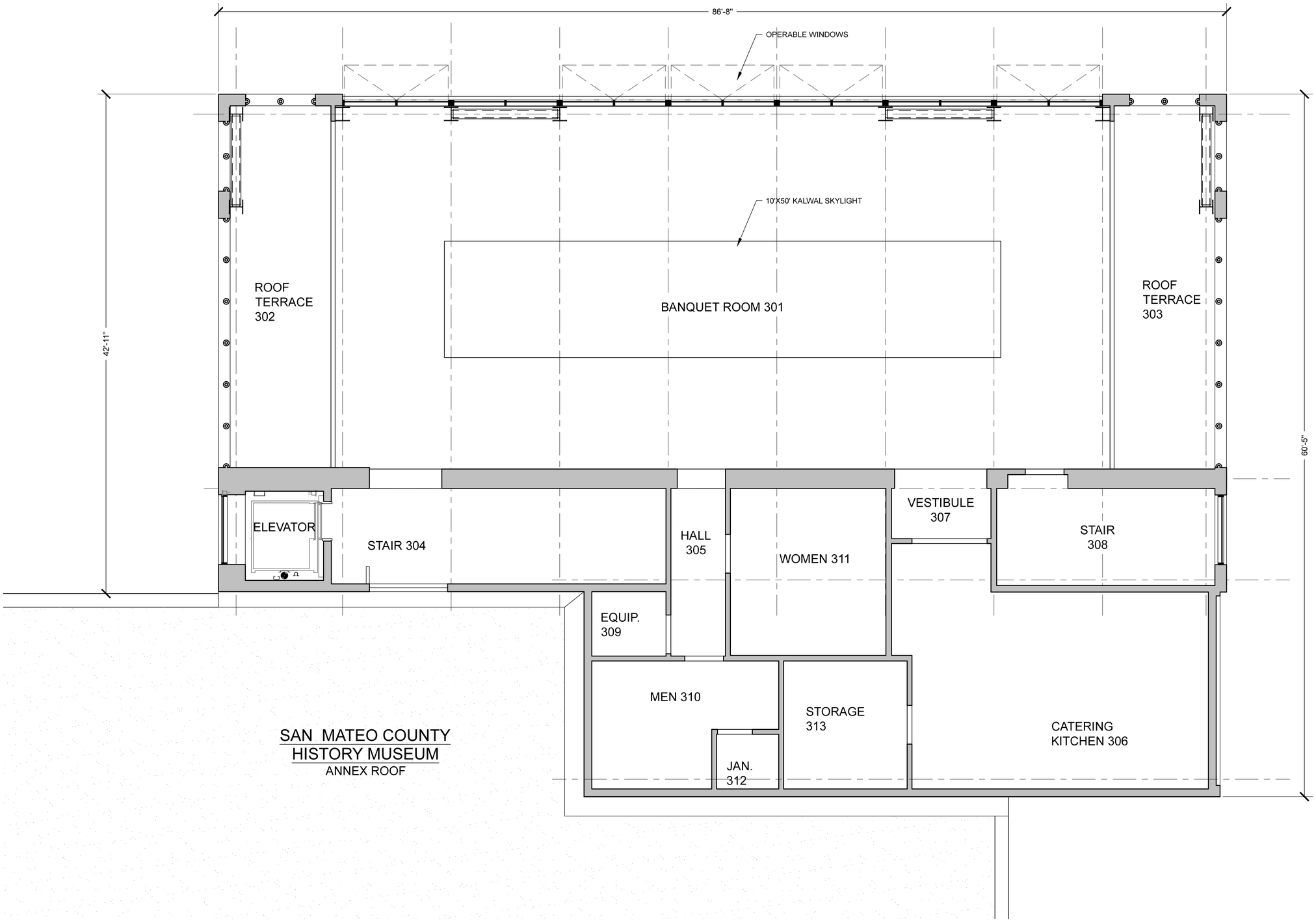

① SECOND FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"

PROJECT NORTH

Revision

LICENSED ARCHITECT
ADOLPH S. ROSEKRANS
No. C-3994
12-31-19
STATE OF CALIFORNIA

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SECOND FLOOR REFLECTED CEILING PLAN

TAUBE FAMILY CARRIAGE HOSUE
San Mateo County History Museum
San Mateo County Historical Association
2200 Broadway Redwood City, CA 94063

Date 11/07/2019
Scale U.O.N. 1/4" = 1'-0"
Job 1702

A7.2
Sheet


TAUBE FAMILY
CARRIAGE HOUSE

San Mateo County History Museum
Taube Family Carriage House Addition

Appendix B: Air Quality/GHG Calculations

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San Mateo County: Carriage House

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	14.00	1000sqft	0.10	14,001.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2022
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	156.52	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

San Mateo County: Carriage House - San Mateo County, Annual

Project Characteristics - MIG Modeler: Phil Gleason; GHG intensity factors updated to reflect Peninsula Clean Energy's renewable mix from 2018 (CO2) and EGRID values from 2017 (CH4 and N2O).

Land Use - Three-story building on approximately 0.1 acres, as measured in Google Earth.

Construction Phase - Updated per schedule provided by County; assumes substructure will take approximately three months, superstructure will take approximately nine months.

Off-road Equipment -

Off-road Equipment - Reflects equipment provided by County for demo / grading.

Off-road Equipment - Reflects equipment provided by County for demo / grading.

Off-road Equipment - No equipment during site prep, since no site prep phase.

Off-road Equipment - Reflects equipment provided by County for foundation construction; OCE is for concrete pump, ready mix trucks accounted for in vendor trips.

Off-road Equipment - One crane during super structure development (i.e., structural steel erection); semi accounted for in vendor trips.

Off-road Equipment - Assumes trencher would excavate area; forklift would lift / move utility piping.

Trips and VMT - Vendor trips per day for substructure increased to 3 to reflect the ready-mix trucks making deliveries.

Grading - Assumes the site would be lightly graded.

Vehicle Trips - Trip rate based on weighted average that accounts for typcial weekday, weekday with evening special event, and weekday with daytime special event. Sunday trips not modeled to indicate site is closed on Mondays.

Energy Use - Lighting intensity adjusted downward to reflect compliance with 2019 Title 24 standards (more efficient than 2016 standards).

Construction Off-road Equipment Mitigation - Watering two times per day for compliance with BAAQMD fugitive dust BMPs.

Table Name	Column Name	Default Value	New Value
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tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	1.00	0.00
tblEnergyUse	LightingElect	3.58	2.51
tblGrading	AcresOfGrading	0.00	0.50
tblLandUse	LandUseSquareFeet	14,000.00	14,001.00
tblLandUse	LotAcreage	0.32	0.10

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	PhaseName		Utility Relocation
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Substructure
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading

tblOffRoadEquipment	PhaseName		Substructure
tblOffRoadEquipment	PhaseName		Superstructure
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Superstructure
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Utility Relocation
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.033
tblProjectCharacteristics	CO2IntensityFactor	0	156.52
tblProjectCharacteristics	N2OIntensityFactor	0	0.004
tblTripsAndVMT	VendorTripNumber	2.00	3.00
tblVehicleTrips	ST_TR	0.00	3.00
tblVehicleTrips	WD_TR	68.93	3.00

2.0 Emissions Summary

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					
2020	0.0304	0.2799	0.2086	3.8000e-004	1.7400e-003	0.0174	0.0191	4.6000e-004	0.0160	0.0164	0.0000	33.5632	33.5632	0.0104	0.0000	33.8222
2021	0.1665	0.9803	0.6157	1.6400e-003	6.8200e-003	0.0409	0.0477	1.8200e-003	0.0376	0.0394	0.0000	145.1016	145.1016	0.0438	0.0000	146.1969
Maximum	**0.1665**	**0.9803**	**0.6157**	**1.6400e-003**	**6.8200e-003**	**0.0409**	**0.0477**	**1.8200e-003**	**0.0376**	**0.0394**	**0.0000**	**145.1016**	**145.1016**	**0.0438**	**0.0000**	**146.1969**

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					
2020	0.0304	0.2799	0.2086	3.8000e-004	1.7400e-003	0.0174	0.0191	4.6000e-004	0.0160	0.0164	0.0000	33.5632	33.5632	0.0104	0.0000	33.8222
2021	0.1665	0.9803	0.6157	1.6400e-003	6.6700e-003	0.0409	0.0475	1.8000e-003	0.0376	0.0394	0.0000	145.1014	145.1014	0.0438	0.0000	146.1967
Maximum	**0.1665**	**0.9803**	**0.6157**	**1.6400e-003**	**6.6700e-003**	**0.0409**	**0.0475**	**1.8000e-003**	**0.0376**	**0.0394**	**0.0000**	**145.1014**	**145.1014**	**0.0438**	**0.0000**	**146.1967**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**1.75**	**0.02**	**0.22**	**0.88**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	0.4209	0.4209
2	4-1-2021	6-30-2021	0.1784	0.1784
3	7-1-2021	9-30-2021	0.1804	0.1804
		Highest	0.4209	0.4209

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	0.0620	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Energy	1.4600e-003	0.0133	0.0111	8.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	25.7841	25.7841	2.6700e-003	5.5000e-004	26.0161
Mobile	7.5100e-003	0.0215	0.0765	2.5000e-004	0.0229	2.1000e-004	0.0231	6.1500e-003	2.0000e-004	6.3500e-003	0.0000	22.5706	22.5706	8.5000e-004	0.0000	22.5917
Waste						0.0000	0.0000		0.0000	0.0000	2.6429	0.0000	2.6429	0.1562	0.0000	6.5478
Water						0.0000	0.0000		0.0000	0.0000	0.8824	1.4920	2.3744	0.0909	2.1800e-003	5.2970
Total	**0.0710**	**0.0347**	**0.0878**	**3.3000e-004**	**0.0229**	**1.2200e-003**	**0.0241**	**6.1500e-003**	**1.2100e-003**	**7.3600e-003**	**3.5253**	**49.8470**	**53.3723**	**0.2507**	**2.7300e-003**	**60.4528**

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	0.0620	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Energy	1.4600e-003	0.0133	0.0111	8.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	25.7841	25.7841	2.6700e-003	5.5000e-004	26.0161
Mobile	7.5100e-003	0.0215	0.0765	2.5000e-004	0.0229	2.1000e-004	0.0231	6.1500e-003	2.0000e-004	6.3500e-003	0.0000	22.5706	22.5706	8.5000e-004	0.0000	22.5917
Waste						0.0000	0.0000		0.0000	0.0000	2.6429	0.0000	2.6429	0.1562	0.0000	6.5478
Water						0.0000	0.0000		0.0000	0.0000	0.8824	1.4920	2.3744	0.0909	2.1800e-003	5.2970
Total	**0.0710**	**0.0347**	**0.0878**	**3.3000e-004**	**0.0229**	**1.2200e-003**	**0.0241**	**6.1500e-003**	**1.2100e-003**	**7.3600e-003**	**3.5253**	**49.8470**	**53.3723**	**0.2507**	**2.7300e-003**	**60.4528**

	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	N20	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

San Mateo County: Carriage House - San Mateo County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Utility Relocation	Trenching	9/1/2020	11/30/2020	5	65	
2	Demolition	Demolition	12/1/2020	12/7/2020	5	5	
3	Substructure	Building Construction	12/22/2020	3/31/2021	5	72	
4	Site Preparation	Site Preparation	1/15/2021	1/14/2021	5	0	
5	Superstructure	Building Construction	4/1/2021	12/31/2021	5	197	
6	Grading	Grading	12/8/2021	12/21/2021	5	10	
7	Architectural Coating	Architectural Coating	12/27/2021	12/31/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 21,002; Non-Residential Outdoor: 7,001; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Substructure	Cranes	0	4.00	231	0.29
Substructure	Forklifts	0	6.00	89	0.20
Substructure	Off-Highway Trucks	1	8.00	402	0.38
Substructure	Other Construction Equipment	1	8.00	172	0.42
Substructure	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Utility Relocation	Forklifts	1	8.00	89	0.20
Utility Relocation	Trenchers	1	8.00	78	0.50
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Off-Highway Trucks	3	8.00	402	0.38

Demolition	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Off-Highway Trucks	0	2.00	402	0.38
Site Preparation	Rollers	0	6.00	80	0.38
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Superstructure	Cement and Mortar Mixers	0	6.00	9	0.56
Superstructure	Cranes	1	8.00	231	0.29
Superstructure	Forklifts	0	6.00	89	0.20
Superstructure	Pavers	0	7.00	130	0.42
Superstructure	Rollers	0	7.00	80	0.38
Superstructure	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Off-Highway Trucks	3	8.00	402	0.38
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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
Substructure	3	4.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utility Relocation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Superstructure	1	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Utility Relocation - 2020

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	0.1656	0.1240	1.6000e-004		0.0124	0.0124		0.0114	0.0114	0.0000	14.0000	14.0000	4.5300e-003	0.0000	14.1132
Total	**0.0183**	**0.1656**	**0.1240**	**1.6000e-004**		**0.0124**	**0.0124**		**0.0114**	**0.0114**	**0.0000**	**14.0000**	**14.0000**	**4.5300e-003**	**0.0000**	**14.1132**

3.2 Utility Relocation - 2020

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	4.4000e-004	3.0000e-004	3.1600e-003	1.0000e-005	1.2800e-003	1.0000e-005	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0652	1.0652	2.0000e-005	0.0000	1.0658
Total	**4.4000e-004**	**3.0000e-004**	**3.1600e-003**	**1.0000e-005**	**1.2800e-003**	**1.0000e-005**	**1.2900e-003**	**3.4000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**1.0652**	**1.0652**	**2.0000e-005**	**0.0000**	**1.0658**

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	0.1656	0.1240	1.6000e-004		0.0124	0.0124		0.0114	0.0114	0.0000	14.0000	14.0000	4.5300e-003	0.0000	14.1132
Total	**0.0183**	**0.1656**	**0.1240**	**1.6000e-004**		**0.0124**	**0.0124**		**0.0114**	**0.0114**	**0.0000**	**14.0000**	**14.0000**	**4.5300e-003**	**0.0000**	**14.1132**

3.2 Utility Relocation - 2020

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	4.4000e-004	3.0000e-004	3.1600e-003	1.0000e-005	1.2800e-003	1.0000e-005	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0652	1.0652	2.0000e-005	0.0000	1.0658
Total	**4.4000e-004**	**3.0000e-004**	**3.1600e-003**	**1.0000e-005**	**1.2800e-003**	**1.0000e-005**	**1.2900e-003**	**3.4000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**1.0652**	**1.0652**	**2.0000e-005**	**0.0000**	**1.0658**

3.3 Demolition - 2020

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	6.0200e-003	0.0579	0.0390	1.1000e-004		2.3900e-003	2.3900e-003		2.2000e-003	2.2000e-003	0.0000	9.9579	9.9579	3.2200e-003	0.0000	10.0385
Total	**6.0200e-003**	**0.0579**	**0.0390**	**1.1000e-004**		**2.3900e-003**	**2.3900e-003**		**2.2000e-003**	**2.2000e-003**	**0.0000**	**9.9579**	**9.9579**	**3.2200e-003**	**0.0000**	**10.0385**

3.3 Demolition - 2020

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	9.0000e-005	6.0000e-005	6.3000e-004	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2131	0.2131	0.0000	0.0000	0.2132
Total	**9.0000e-005**	**6.0000e-005**	**6.3000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2131**	**0.2131**	**0.0000**	**0.0000**	**0.2132**

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	6.0200e-003	0.0579	0.0390	1.1000e-004		2.3900e-003	2.3900e-003		2.2000e-003	2.2000e-003	0.0000	9.9579	9.9579	3.2200e-003	0.0000	10.0385
Total	**6.0200e-003**	**0.0579**	**0.0390**	**1.1000e-004**		**2.3900e-003**	**2.3900e-003**		**2.2000e-003**	**2.2000e-003**	**0.0000**	**9.9579**	**9.9579**	**3.2200e-003**	**0.0000**	**10.0385**

3.3 Demolition - 2020

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	9.0000e-005	6.0000e-005	6.3000e-004	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2131	0.2131	0.0000	0.0000	0.2132
Total	**9.0000e-005**	**6.0000e-005**	**6.3000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2131**	**0.2131**	**0.0000**	**0.0000**	**0.2132**

3.4 Substructure - 2020

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	5.4700e-003	0.0547	0.0409	9.0000e-005		2.5600e-003	2.5600e-003		2.3500e-003	2.3500e-003	0.0000	7.9041	7.9041	2.5600e-003	0.0000	7.9680
Total	**5.4700e-003**	**0.0547**	**0.0409**	**9.0000e-005**		**2.5600e-003**	**2.5600e-003**		**2.3500e-003**	**2.3500e-003**	**0.0000**	**7.9041**	**7.9041**	**2.5600e-003**	**0.0000**	**7.9680**

3.4 Substructure - 2020

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	5.0000e-005	1.3900e-003	5.5000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3180	0.3180	3.0000e-005	0.0000	0.3187
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1049	0.1049	0.0000	0.0000	0.1049
Total	**9.0000e-005**	**1.4200e-003**	**8.6000e-004**	**0.0000**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**0.4229**	**0.4229**	**3.0000e-005**	**0.0000**	**0.4236**

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	5.4700e-003	0.0547	0.0409	9.0000e-005		2.5600e-003	2.5600e-003		2.3500e-003	2.3500e-003	0.0000	7.9041	7.9041	2.5600e-003	0.0000	7.9680
Total	**5.4700e-003**	**0.0547**	**0.0409**	**9.0000e-005**		**2.5600e-003**	**2.5600e-003**		**2.3500e-003**	**2.3500e-003**	**0.0000**	**7.9041**	**7.9041**	**2.5600e-003**	**0.0000**	**7.9680**

3.4 Substructure - 2020

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	5.0000e-005	1.3900e-003	5.5000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3180	0.3180	3.0000e-005	0.0000	0.3187
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1049	0.1049	0.0000	0.0000	0.1049
Total	**9.0000e-005**	**1.4200e-003**	**8.6000e-004**	**0.0000**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**0.4229**	**0.4229**	**3.0000e-005**	**0.0000**	**0.4236**

3.4 Substructure - 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	0.0388	0.3693	0.3174	7.2000e-004		0.0171	0.0171		0.0157	0.0157	0.0000	63.2256	63.2256	0.0205	0.0000	63.7368
Total	**0.0388**	**0.3693**	**0.3174**	**7.2000e-004**		**0.0171**	**0.0171**		**0.0157**	**0.0157**	**0.0000**	**63.2256**	**63.2256**	**0.0205**	**0.0000**	**63.7368**

3.4 Substructure - 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	3.1000e-004	0.0100	4.2900e-003	3.0000e-005	6.3000e-004	2.0000e-005	6.5000e-004	1.8000e-004	2.0000e-005	2.0000e-004	0.0000	2.5124	2.5124	2.2000e-004	0.0000	2.5178
Worker	3.3000e-004	2.1000e-004	2.3000e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.8092	0.8092	1.0000e-005	0.0000	0.8096
Total	**6.4000e-004**	**0.0102**	**6.5900e-003**	**4.0000e-005**	**1.6400e-003**	**3.0000e-005**	**1.6600e-003**	**4.5000e-004**	**3.0000e-005**	**4.7000e-004**	**0.0000**	**3.3216**	**3.3216**	**2.3000e-004**	**0.0000**	**3.3274**

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	0.0388	0.3693	0.3174	7.2000e-004		0.0171	0.0171		0.0157	0.0157	0.0000	63.2256	63.2256	0.0205	0.0000	63.7368
Total	**0.0388**	**0.3693**	**0.3174**	**7.2000e-004**		**0.0171**	**0.0171**		**0.0157**	**0.0157**	**0.0000**	**63.2256**	**63.2256**	**0.0205**	**0.0000**	**63.7368**

3.4 Substructure - 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	3.1000e-004	0.0100	4.2900e-003	3.0000e-005	6.3000e-004	2.0000e-005	6.5000e-004	1.8000e-004	2.0000e-005	2.0000e-004	0.0000	2.5124	2.5124	2.2000e-004	0.0000	2.5178
Worker	3.3000e-004	2.1000e-004	2.3000e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.8092	0.8092	1.0000e-005	0.0000	0.8096
Total	**6.4000e-004**	**0.0102**	**6.5900e-003**	**4.0000e-005**	**1.6400e-003**	**3.0000e-005**	**1.6600e-003**	**4.5000e-004**	**3.0000e-005**	**4.7000e-004**	**0.0000**	**3.3216**	**3.3216**	**2.3000e-004**	**0.0000**	**3.3274**

3.5 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	0.0000	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
Off-Road	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
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**	**0.0000**	**0.0000**

3.5 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	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	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
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**	**0.0000**	**0.0000**

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	0.0000	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
Off-Road	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
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**	**0.0000**	**0.0000**

3.5 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	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	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
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**	**0.0000**	**0.0000**

3.6 Superstructure - 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	0.0407	0.4777	0.1953	5.7000e-004		0.0194	0.0194		0.0178	0.0178	0.0000	49.9276	49.9276	0.0162	0.0000	50.3313
Total	**0.0407**	**0.4777**	**0.1953**	**5.7000e-004**		**0.0194**	**0.0194**		**0.0178**	**0.0178**	**0.0000**	**49.9276**	**49.9276**	**0.0162**	**0.0000**	**50.3313**

3.6 Superstructure - 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	6.3000e-004	0.0205	8.8100e-003	5.0000e-005	1.2800e-003	5.0000e-005	1.3300e-003	3.7000e-004	4.0000e-005	4.2000e-004	0.0000	5.1556	5.1556	4.5000e-004	0.0000	5.1667
Worker	1.0000e-003	6.5000e-004	7.0800e-003	3.0000e-005	3.1000e-003	2.0000e-005	3.1200e-003	8.3000e-004	2.0000e-005	8.4000e-004	0.0000	2.4909	2.4909	5.0000e-005	0.0000	2.4920
Total	**1.6300e-003**	**0.0212**	**0.0159**	**8.0000e-005**	**4.3800e-003**	**7.0000e-005**	**4.4500e-003**	**1.2000e-003**	**6.0000e-005**	**1.2600e-003**	**0.0000**	**7.6465**	**7.6465**	**5.0000e-004**	**0.0000**	**7.6587**

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	0.0407	0.4777	0.1953	5.7000e-004		0.0194	0.0194		0.0178	0.0178	0.0000	49.9276	49.9276	0.0162	0.0000	50.3312
Total	**0.0407**	**0.4777**	**0.1953**	**5.7000e-004**		**0.0194**	**0.0194**		**0.0178**	**0.0178**	**0.0000**	**49.9276**	**49.9276**	**0.0162**	**0.0000**	**50.3312**

3.6 Superstructure - 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	6.3000e-004	0.0205	8.8100e-003	5.0000e-005	1.2800e-003	5.0000e-005	1.3300e-003	3.7000e-004	4.0000e-005	4.2000e-004	0.0000	5.1556	5.1556	4.5000e-004	0.0000	5.1667
Worker	1.0000e-003	6.5000e-004	7.0800e-003	3.0000e-005	3.1000e-003	2.0000e-005	3.1200e-003	8.3000e-004	2.0000e-005	8.4000e-004	0.0000	2.4909	2.4909	5.0000e-005	0.0000	2.4920
Total	**1.6300e-003**	**0.0212**	**0.0159**	**8.0000e-005**	**4.3800e-003**	**7.0000e-005**	**4.4500e-003**	**1.2000e-003**	**6.0000e-005**	**1.2600e-003**	**0.0000**	**7.6465**	**7.6465**	**5.0000e-004**	**0.0000**	**7.6587**

3.7 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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.0981	0.0748	2.3000e-004		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	19.9152	19.9152	6.4400e-003	0.0000	20.0763
Total	**0.0110**	**0.0981**	**0.0748**	**2.3000e-004**	**2.7000e-004**	**4.0400e-003**	**4.3100e-003**	**3.0000e-005**	**3.7200e-003**	**3.7500e-003**	**0.0000**	**19.9152**	**19.9152**	**6.4400e-003**	**0.0000**	**20.0763**

3.7 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	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	1.7000e-004	1.1000e-004	1.1700e-003	0.0000	5.1000e-004	0.0000	5.1000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4109	0.4109	1.0000e-005	0.0000	0.4111
Total	**1.7000e-004**	**1.1000e-004**	**1.1700e-003**	**0.0000**	**5.1000e-004**	**0.0000**	**5.1000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4109**	**0.4109**	**1.0000e-005**	**0.0000**	**0.4111**

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					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.0981	0.0748	2.3000e-004		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	19.9152	19.9152	6.4400e-003	0.0000	20.0762
Total	**0.0110**	**0.0981**	**0.0748**	**2.3000e-004**	**1.2000e-004**	**4.0400e-003**	**4.1600e-003**	**1.0000e-005**	**3.7200e-003**	**3.7300e-003**	**0.0000**	**19.9152**	**19.9152**	**6.4400e-003**	**0.0000**	**20.0762**

3.7 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	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	1.7000e-004	1.1000e-004	1.1700e-003	0.0000	5.1000e-004	0.0000	5.1000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4109	0.4109	1.0000e-005	0.0000	0.4111
Total	**1.7000e-004**	**1.1000e-004**	**1.1700e-003**	**0.0000**	**5.1000e-004**	**0.0000**	**5.1000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4109**	**0.4109**	**1.0000e-005**	**0.0000**	**0.4111**

3.8 Architectural Coating - 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					
Archit. Coating	0.0730					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.0736**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

3.8 Architectural Coating - 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	1.0000e-005	0.0000	4.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0158	0.0158	0.0000	0.0000	0.0158
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0158**	**0.0158**	**0.0000**	**0.0000**	**0.0158**

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	0.0730					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.0736**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

3.8 Architectural Coating - 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	1.0000e-005	0.0000	4.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0158	0.0158	0.0000	0.0000	0.0158
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0158**	**0.0158**	**0.0000**	**0.0000**	**0.0158**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	7.5100e-003	0.0215	0.0765	2.5000e-004	0.0229	2.1000e-004	0.0231	6.1500e-003	2.0000e-004	6.3500e-003	0.0000	22.5706	22.5706	8.5000e-004	0.0000	22.5917
Unmitigated	7.5100e-003	0.0215	0.0765	2.5000e-004	0.0229	2.1000e-004	0.0231	6.1500e-003	2.0000e-004	6.3500e-003	0.0000	22.5706	22.5706	8.5000e-004	0.0000	22.5917

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government Office Building	42.00	42.00	0.00	61,736	61,736
Total	42.00	42.00	0.00	61,736	61,736

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government Office Building	0.476244	0.050164	0.262181	0.139658	0.017521	0.006864	0.023236	0.006525	0.004137	0.003158	0.009064	0.000471	0.000777

5.0 Energy Detail

Historical Energy Use: N

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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.3418	11.3418	2.3900e-003	2.9000e-004	11.4879
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.3418	11.3418	2.3900e-003	2.9000e-004	11.4879
NaturalGas Mitigated	1.4600e-003	0.0133	0.0111	8.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	14.4424	14.4424	2.8000e-004	2.6000e-004	14.5282
NaturalGas Unmitigated	1.4600e-003	0.0133	0.0111	8.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	14.4424	14.4424	2.8000e-004	2.6000e-004	14.5282

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	tons/yr										MT/yr					
Government Office Building	270639	1.4600e-003	0.0133	0.0111	8.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	14.4424	14.4424	2.8000e-004	2.6000e-004	14.5282
Total		**1.4600e-003**	**0.0133**	**0.0111**	**8.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.0000**	**14.4424**	**14.4424**	**2.8000e-004**	**2.6000e-004**	**14.5282**

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					
Government Office Building	270639	1.4600e-003	0.0133	0.0111	8.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	14.4424	14.4424	2.8000e-004	2.6000e-004	14.5282
Total		**1.4600e-003**	**0.0133**	**0.0111**	**8.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.0000**	**14.4424**	**14.4424**	**2.8000e-004**	**2.6000e-004**	**14.5282**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government Office Building	159751	11.3418	2.3900e-003	2.9000e-004	11.4879
Total		**11.3418**	**2.3900e-003**	**2.9000e-004**	**11.4879**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government Office Building	159751	11.3418	2.3900e-003	2.9000e-004	11.4879
Total		**11.3418**	**2.3900e-003**	**2.9000e-004**	**11.4879**

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	0.0620	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Unmitigated	0.0620	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004

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	7.3000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0547					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	**0.0620**	**0.0000**	**1.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.0000**	**2.7000e-004**

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	7.3000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0547					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	**0.0620**	**0.0000**	**1.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.0000**	**2.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.3744	0.0909	2.1800e-003	5.2970
Unmitigated	2.3744	0.0909	2.1800e-003	5.2970

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government Office Building	2.78124 / 1.70463	2.3744	0.0909	2.1800e-003	5.2970
Total		**2.3744**	**0.0909**	**2.1800e-003**	**5.2970**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government Office Building	2.78124 / 1.70463	2.3744	0.0909	2.1800e-003	5.2970
Total		**2.3744**	**0.0909**	**2.1800e-003**	**5.2970**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.6429	0.1562	0.0000	6.5478
Unmitigated	2.6429	0.1562	0.0000	6.5478

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government Office Building	13.02	2.6429	0.1562	0.0000	6.5478
Total		**2.6429**	**0.1562**	**0.0000**	**6.5478**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government Office Building	13.02	2.6429	0.1562	0.0000	6.5478
Total		**2.6429**	**0.1562**	**0.0000**	**6.5478**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

San Mateo County History Museum
Taube Family Carriage House Addition

Appendix C: Historic Resources Report

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HISTORICAL RESOURCE REPORT

for the

San Mateo County History Museum
Carriage House Addition Project
2200 Broadway
Redwood City, California

Prepared for:

County of San Mateo
455 County Center
Redwood City, CA 94063

and

MIG
2635 North First Street, Suite 149
San Jose, CA 95134

Prepared by:

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JRP Historical Consulting, LLC
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April 2020

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

The County of San Mateo (County) proposes a project to construct a three-story, 14,000 square-foot addition to the San Mateo County History Museum (Museum) at 2200 Broadway in Redwood City, a building that formerly housed the San Mateo County Courthouse. This project qualifies as a discretionary action by the County and thus provisions of the California Environmental Quality Act (CEQA) apply, specifically CEQA Guidelines Section 15064.5 and California Public Resources Code (PRC) Section 21084.1. As per CEQA Guidelines Section 15064.5(a), the County has determined that the Museum is a historical resource for the purposes of CEQA because the building was listed in the National Register of Historic Places (NRHP) in 1977 for its architectural significance under NRHP Criterion C. In addition, the Lathrop House is situated adjacent to the Museum and the proposed addition site. The County has determined the Lathrop House is a historical resource for the purposes of CEQA because the building was listed in the NRHP in 1973 for its architectural significance under NRHP Criterion C. Based on their NRHP status, the Museum and the Lathrop House are also listed in the California Register of Historical Resources (CRHR) for their significance under CRHR Criterion 3.[1] The County has determined that the Museum and the Lathrop House are the only historical resources potentially affected by the carriage house project. This report is in support of the CEQA environmental compliance document for the project.

The County hired JRP Historical Consulting, LLC (JRP), under subcontract to MIG, Inc., to prepare this Historical Resource Report. This report provides analysis of project impacts to the Museum and the Lathrop House.[2] JRP concludes that the project will not cause a substantial adverse change to the Museum or the Lathrop House, as per CEQA Guidelines Section 15064.5(b).

[1] Dorothy F. Regnery, NRHP Nomination, "San Mateo County Courthouse," November 19, 1976, NRHP Reference No. 77000340; Henry P. Tarratt, NRHP Nomination, "Lathrop House," July 3, 1972, NRHP Reference No. 73000448.
[2] JRP did not conduct a site visit while preparing this report because of the statewide response to the COVID-19 pandemic. Instead, JRP used Google streetview and other recent photographs to aid in the assessment presented herein.

2. PROJECT DESCRIPTION[3]

This project is in downtown Redwood City on a block bounded by Marshall Street on the north, Hamilton Street on the west, Middlefield Road on the east, and Broadway on the south (**Figure 1**). Currently, the Museum occupies the center of the block and faces south onto Broadway and Courthouse Square, a spacious public plaza flanked by pavilions on each side. The rear (north elevation) of the building faces onto a small parking lot and Marshall Street. The only other building on the block is the Lathrop House located in the northwest corner of the block behind the Museum at the corner of Hamilton Street and Marshall Street, facing onto Hamilton Street.

The current project proposes to construct a three-story, 14,000 square-foot carriage house addition on the rear, northeast corner of the Museum facing Marshall Street with a side elevation on Middlefield Road (**Figure 2**). The carriage house will feature a historic carriage exhibit space on the first two floors and a special events hall on the third floor. The carriage house will be attached to the portion of the existing Museum building known as the Annex, a non-original addition constructed in 1941 on the rear (north elevation) of the Museum. Plans call for interior doorways to be built connecting the first two levels of the carriage house with the Annex section of the Museum. The total height of the carriage house will be 43 feet, 5 inches tall.

The Lathrop House is separated from the Museum by about 10 feet at its closest point and the carriage house will be about 29 feet from the rear of the Lathrop House. The carriage house project calls for minor alterations to the Lathrop House and its immediate surroundings. The only proposed alteration to the house is the removal of a non-original back door stairway and fixing the associated back door closed. Alterations in the immediate area include the construction of a 29-foot by 42-foot courtyard between the rear of the house and the carriage house. The courtyard will be surfaced with brick pavers and have several planter boxes around the perimeter. Other proposed new construction near the Lathrop House will be a stucco-clad or painted concrete block with metal gate trash enclosure, and metal picket fence at the sidewalk edge along the rear portion of the Marshall Street side of the house.

[3] Project description provided by MIG, which is providing environmental compliance services to the County for this project.

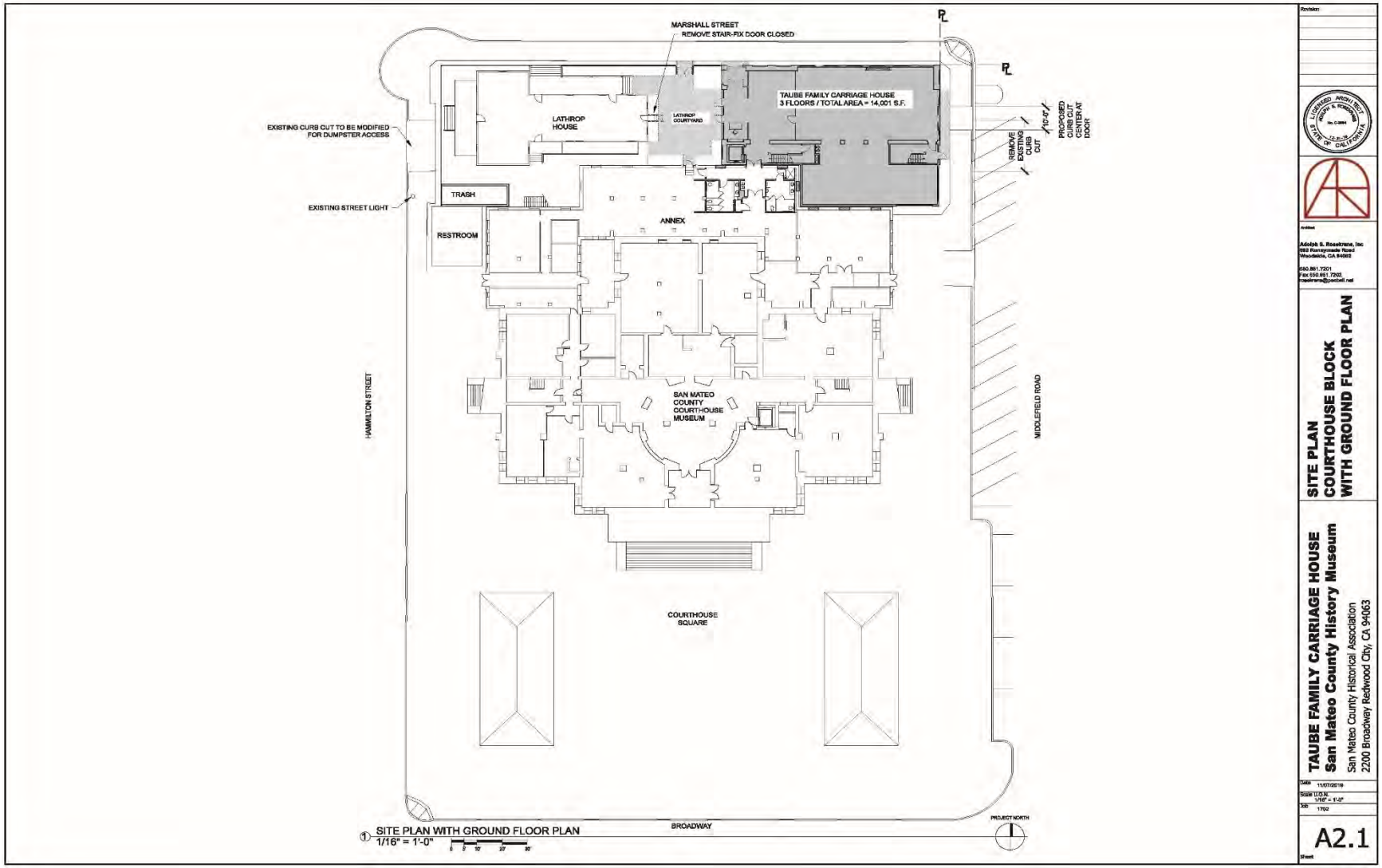

Figure 1: Project site plan showing the block bounded by Marshall Street on the north, Hamilton Street on the west, Middlefield Road on the east, and Broadway on the south. The plan also shows the current buildings on the block including the Lathrop House in the northwest corner (upper left) and the footprint of the proposed carriage house addition (shaded area) in the northeast corner of the block (upper right). (Plans by Adolph S. Rosenkrans, Inc.)

Figure 2: Conceptual rendering of the proposed carriage house showing the north elevation (Marshall Street) and east elevation (Middlefield Road). The rear (east) and side (north elevation) of the Lathrop House are shown on the far right. (Rendering by Adolph S. Rosenkrans, Inc.)

3. IDENTIFICATION AND DESCRIPTION OF HISTORICAL RESOURCES

The two CEQA historical resources that may be impacted by the proposed project are the Museum and the Lathrop House.

3.1. SAN MATEO COUNTY HISTORY MUSEUM

The building now housing the San Mateo County History Museum was originally constructed in 1903 as the San Mateo County Courthouse and substantially rebuilt between 1907 and 1910 following damage from the 1906 earthquake. When constructed, it was the only building on the block, situated in the center of the block with a large open lawn in front facing Broadway and a parking lot behind (**Photograph 1**). In 1939, the County constructed a large, three-story building directly in front of the Courthouse known as the Fiscal Building that completely obscured the front elevation of the Courthouse from Broadway, and construction of a passageway between the two buildings altered the colonnaded main entrance of the Courthouse. Two years later, in 1941, the two-story Annex addition was built on the rear elevation of the Courthouse, spanning the entire width of the building. Damage to the Courthouse from the 1989 Loma Prieta earthquake resulted in the building being declared unsafe to occupy and was vacated. In 1998, following seismic retrofitting, the San Mateo County History Museum moved into the building. In 2005, the County demolished the Fiscal Building, restored the main entrance, and constructed the current plaza and pavilions facing Broadway.

In 1976, Dorothy F. Regnery prepared a NRHP Nomination form for the San Mateo County Courthouse, which was accepted by the Keeper of the National Register and listed in the NRHP on December 13, 1977. It was found to be historically significant at the local level under Criterion C as an important example of the Roman-Renaissance architectural style (**Photograph 1** – **Photograph 4**).[4] The period of significance is given on the form as 1907-1910, the period of the building's reconstruction after the 1906 earthquake. The form does not explicitly define the boundaries of the historic property, but it is assumed to be the footprint of the building as completed in 1910. The character-defining features of the historic property are also not explicitly identified, but information presented in the form clearly implies that these features are limited to those physical elements of the building that express its architectural significance and Roman-Renaissance style and date to the period of significance. The form does not mention any aspects of the setting, landscape architecture, or immediate surroundings that contribute to the significance of the building. The form presents the following descriptive information and significance statement:

[4] Regnery, NRHP Nomination, "San Mateo County Courthouse," November 19, 1976.

> The Colusa Sandstone Company furnished an excellent quality of gray stone. The most impressive exterior detail still showing are the colossal order with American eagle capitals.
>
> A true appreciation of the building is not experienced until one walks inside and looks up from the magnificent central rotunda at the beautifully crafted, colorful stained glass in its patriotic motifs. The rotunda is 40 feet in diameter. The dome is supported by sixteen dark green scagliola columns on each floor level. The rotunda and corridors are wainscoted with polished Columbian marble and the floors are of ceramic mosaic with geometric Greek borders. The floor of the rotunda is made of panels radiating from the center feature, a handcut mosaic reproduction of the Great Seal of the State of California.
>
> The main stairway leading to the second story is attractively finished in bronze, iron and marble. A 40 x 54 foot courtroom at the rear of the second floor is a strikingly beautiful room, having an elaborate ceiling with a large oval art glass dome.
>
> The 1910 county courthouse is a rare example in the Bay area of the once very popular Roman-Renaissance style of architecture. It possesses an unusual display of craftsmanship in stone carving, excellent scagliola, iron work and mosaics. The exquisite stain glass skylights in the main dome and in the Judge's chamber are unequalled on the San Francisco Peninsula.
>
> The building's major interior spaces – rotunda, halls, courtrooms and offices – have not been altered throughout the building's life. Some of the original lamp fixtures, furnishings, etc. exist in daily use. One can see the ceiling plaster ornamentation, scored stone-like wood fiber plaster walls, etc.
>
> Due to the defacement of the main entrance the exterior architectural features and the beauty of the original building may be unnoted by the general public. Even in the present form with the additions of dissimilarly styled annexes, the architectural character of the original building has been retained. Its stately dome continues to dominate the skyline of present-day Redwood City as though to remind it of the county's history and the role of the building in the life of the community.[5]

In addition to those presented in the NRHP Nomination form, other character-defining features of the Museum include the massing and original building footprint; the grand main entryway with its columns, entablature, pilasters, and arched pediment doorway; the two side elevations featuring pilasters and massive pediments; arched and flat topped windows; window hood moldings; rooftop balustrade; bracketed cornice; and eagle sculptures on the roof.

[5] Regnery, NRHP Nomination, “San Mateo County Courthouse,” November 19, 1976.

The "defacement of the main entrance" in the above quote refers to the passageway constructed connecting the recently demolished Fiscal Building with the courthouse. And the "dissimilarly styled annexes" refer to the Fiscal Building (**Photograph 5**) and the 1941 Annex addition on the rear (**Photograph 6**). In 2000, an amendment to the NRHP form was prepared to evaluate the Fiscal Building, and concluded the building was significant for representing the work of a master architect and for its association with the Work Progress Administration. This study also clarified that the 1941 rear Annex addition to the Museum was "not architecturally significant." As noted above, in 2005, the County demolished the Fiscal Building and restored the main entrance to its original appearance.[6]

Photograph 1: View of the primary (south) façade of County Courthouse (Museum) from Broadway taken circa 1925.[7]

[6] Richard Brandi, "Lathrop House Receiver Site, Rear of the Historic San Mateo County Courthouse," prepared for MIG/TRA, Inc., December 12, 2017, 9.
[7] Regnery, NRHP Nomination, "San Mateo County Courthouse," November 19, 1976.

Photograph 2: Rotunda interior and courtroom doorway taken in 1976.[8]

[8] Regnery, NRHP Nomination, "San Mateo County Courthouse," November 19, 1976.

Photograph 3: Museum primary façade from Broadway showing recently constructed Courthouse Square and flanking pavilions, former site of the Fiscal Building demolished in 2005 (see **Photograph 5**) (2019 Google Street View).

Photograph 4: View of Museum east elevation from Middlefield Road. Note the dissimilar, two-story 1941 Annex addition on the far right. The carriage house will adjoin on the right the 1941 addition. (2019 Google Street View).

Photograph 5: Fiscal Building in 1976 facing Broadway and standing on the site of the current Courthouse Square plaza and pavilions (see **Photograph 3**). Note the cupola of the Courthouse (current Museum) visible above the roofline.[9]

Photograph 6. Photo taken in 1976 showing the 1941 Annex addition on the rear of the building (north elevation). This view is the corner of Middlefield Road and Marshall Street. The parking lot in the foreground is the site of the proposed carriage house.[10]

[9] Regnery, NRHP Nomination, "San Mateo County Courthouse," November 19, 1976.
[10] Regnery, NRHP Nomination, "San Mateo County Courthouse," November 19, 1976.

3.2. LATHROP HOUSE

The Lathrop House was constructed by Benjamin Lathrop in 1863 on Broadway (formerly A Street) across the street from the current Museum. It was the only building on its block at the time. In the 1890s, a public school joined the residence on the block and in 1905, the Lathrop House was moved about one-and-a-half blocks north to 627 Hamilton Street (formerly 3rd Street) to a parcel mid-block between present-day Marshall Street and Bradford Street, at the time, a block containing several other residences. The Lathrop House occupied this parcel until 2019 when construction of a new San Mateo County administration building proposed for the site prompted moving the Lathrop House one-half block south to its present site at the corner of Hamilton Street and Marshall Street, behind the Museum. The west elevation (front) of the Lathrop House currently faces onto Hamilton Street, its north elevation facing Marshall Street, east elevation (rear) onto a small parking lot and the site of the proposed carriage house, and its south (side) elevation is about 10 feet away at its closest point from the rear, northwest corner of the Museum.[11]

In 1972, Henry P. Tarratt prepared a NRHP Nomination form for the Lathrop House, which was accepted by the Keeper of the National Register and listed in the NRHP on April 11, 1973. It was found to be historically significant at the local level under Criterion C as an important example of a Gothic Revival style residence.[12] The period of significance is given on the form as "nineteenth century." The form does not explicitly define the boundaries of the historic property, but it is assumed to be the footprint of the building. The character-defining features of the historic property are also not explicitly identified, but information presented in the form clearly implies that these features are limited to those physical elements of the building that express its architectural significance and Gothic Revival style and date to the building's nineteenth century period of significance. The form does not mention any aspects of the Lathrop House setting, landscaping, or immediate surroundings that contribute to its significance. The following presents all of the descriptive information and the full significance statement presented in the NRHP Nomination form:

> The Architectural revival, including the Gothic, appeared in the Eastern United States around 1830 and moved westward in the late 1840's. It was still being built in California in the 1860's in a simplified form.
>
> Gothic motifs, translated into wood, were applied to a basic Colonial frame house. Classical influences appeared in the symmetrical facade, Colonial influences in the horizontal siding and Baroque influence in the front porches, central door and sometimes a central main gable.

[11] Sanborn Map Company, *Redwood City* (New York: Sanborn Map Company, 1888, 1897, 1907, 1919).
[12] Tarratt, NRHP Nomination, "Lathrop House," July 3, 1972.

> The Benjamin Lathrop house is architecturally important because it is an outstanding example of this style. Its tall gables and arches pierced by quatrefoil designs is a prime example of its type, unique in the County of San Mateo.[13]

In addition, other character-defining features of the Lathrop House include the massing and T-shaped plan (**Photograph 7** and **Photograph 8**); steeply pitched cross-gable roof and dormers; scroll-work bargeboards; pendant finials at the ends and peaks of the bargeboard; pointed spire finials on the roof ridges; wood sash, two-over-two double-hung windows with hood molds; small, arched-top windows in the gable peak; narrow horizontal wood siding; wood-panel front door with transom light and hood mold; the porch including its columns, arched spandrel panels, balustrade on the balcony above the porch, and turned spindle balustrade; and a matching porch on the north side.

Photograph 7: Lathrop House in 1972 at its former location on Hamilton Street.[14]

[13] Tarratt, NRHP Nomination, "Lathrop House," July 3, 1972.
[14] Tarratt, NRHP Nomination, "Lathrop House," July 3, 1972.

Photograph 8: Lathrop House at its former location on Hamilton Street taken in December 2017.[15]

[15] Brandi, "Lathrop House Receiver Site, Rear of the Historic San Mateo County Courthouse," December 12, 2017, 3.

4. PROJECT EFFECTS ANALYSIS

The analysis of project impacts under CEQA is related to the effect of a proposed project on the integrity of a historical resource and its ability to convey its significance. CEQA Guidelines Section 15064.5(b) state that "a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Relevant sections of the CEQA guidelines outlining a framework for analyzing the impacts of the proposed San Mateo County History Museum Carriage House Addition Project include the following:

- Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired [Section 15064.5(b)(1)].
- The significance of an historical resource is materially impaired when a project:
    - Demolishes or materially in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources [Section 15064.5(b)(2)(A)].

The proposed project has the potential to impact two historical resources under CEQA: the Museum and the Lathrop House. The below analysis refers to information provided in the above Project Description and Identification Description of Historical Resources sections.

4.1. SAN MATEO COUNTY HISTORY MUSEUM

The proposed project would not constitute a substantial adverse change to the Museum. The Museum derives its historical significance from its architecture as discussed above in the Identification and Description of Historical Resources section. Specifically, the architectural features that define it as an example of the Roman-Renaissance style. These features are exhibited on the primary façade (south elevation), both sides (east and west elevations), and the interior. Features of the Roman-Renaissance style are not exhibited in the architecture of the 1941 rear Annex addition, which has been previously and explicitly defined as a non-contributing feature of the historical resource (**Photograph 9**). The listing of the Museum in the NRHP in 1977 occurred after the rear addition had been constructed, and at a time when the Fiscal Building, a massive, three-story building spanning the full width of the block, existed immediately in front of the Museum, the two buildings separated by about 25 feet. At the time of the NRHP listing, the main entrance on the primary façade of the Museum had also been altered by the construction of a passageway connecting the rear of the Fiscal Building with the front of the Museum. Yet, it was under these conditions that the Museum was determined to have sufficient historic integrity to be listed in the NRHP. As noted in the 1976 NRHP Nomination, "Even in the present form with the

additions of dissimilarly styled annexes, the architectural character of the original building has been retained."[16] The integrity of the Museum has since increased following the 2005 demolition of the Fiscal Building and restoration of the altered main entrance.

Photograph 9: Rear elevation of museum from Marshall Street showing the 1941 Annex addition and the site of the proposed carriage house in the foreground (2018 Google Street View).

The construction of the carriage house addition will materially alter the Museum. The addition will be built onto the rear, northeast corner of the building, attaching to the 1941 Annex addition (**Figure 3**). However, the carriage house addition will not diminish the historic integrity to such an extent that the Museum would no longer be able to convey its historic significance, and thus be a substantial adverse change under CEQA.

Regarding the physical characteristics of the historical resource, the portion of the building to be altered by this project is the non-contributing 1941 rear Annex addition. The project will not alter any physical part of the original Museum, any feature described in the 1977 NRHP Nomination form, or inhibit in any way the building's ability to express the Roman-Renaissance style that gives it historical significance.

Second, the carriage house addition will be on the low-visibility rear elevation adjoining the Annex (**Figure 4**). The most profound and visible expression of the Museum's architectural significance is its primary façade, which offers all of its exterior character-defining features when viewed from the Courthouse Square plaza. The carriage house will be lower in height than the original

[16] Regnery, NRHP Nomination, "San Mateo County Courthouse," November 19, 1976.

Courthouse building, and thus, from the vantage point of the plaza will not be visible. The carriage house addition will be visible from Middlefield Road, somewhat compromising the appearance of the Museum's east elevation, however, the view of this side of the Museum was already compromised by the 1941 Annex addition that attaches directly to the original building will visually separate the east elevation of the original building from the carriage house addition (**Figure 5**).

Third, the historic integrity of the Museum has increased substantially since it was listed in the NRHP in 1977. It is logical to conclude that if the Museum had sufficient integrity in 1977 to be listed in the NRHP at a time when the Fiscal Building dramatically altered the setting, and the construction of the passageway connecting the two buildings – called a "defacement" in the NRHP form – physically altered the grand main entrance, then the construction of the carriage house at the rear corner of the 1941 Annex addition will not diminish the integrity of the Museum to a level less than it possessed in 1977, and thus, will not constitute a substantial adverse change as defined by CEQA. Furthermore, with regard to the change in setting brought about by construction of the carriage house, a 2017 report concluded that moving the Lathrop House to its current location at the rear northwest corner of the Museum, formerly a parking lot, would not constitute a substantial adverse change to the Museum under CEQA summarizing: "There is no change to 'the property's historic character,' that is, the relocated Lathrop House does not change the architectural features of the courthouse that were listed in the National Register nomination and therefore, there is no change to feeling and association."[17] In a 2018 letter, the National Register of Historic Places concurred with this finding:

> The new site [current site of the Lathrop House] will be on the grounds of the 1977-listed San Mateo County Courthouse. While introducing a new element to the grounds of the 1910 courthouse, the proposed move site is located to the rear of the historic lot adjacent to a 1941, non-historic north annex addition. The footprint of the relocated Lathrop House will not impact any extant or known archaeological resources, nor will it materially affect the property's ability to convey its architectural and historic significance.
>
> …the National Register has determined that the Lathrop House will not suffer an appreciable loss of integrity as a result of the move, nor will the move significantly impact the historic character of the receiving, National Register-listed, San Mateo County Courthouse site.[18]

[17] Brandi, "Lathrop House Receiver Site, Rear of the Historic San Mateo County Courthouse," December 12, 2017, 25; San Mateo County Manager's Office, Project Development Unit, "County Government Center Campus Development Project," Draft EIR, January 2018, 7-12, 7-13.

[18] Paul R. Lusignan, Historian, National Register of Historic Places, National Park Service to Julianne Polanco, California State Historic Preservation Officer, July 10, 2018.

Fourth, many components of the Museum's original interior such as its rotunda, columns, and floor were called out as character-defining features that contribute greatly to the historical significance of the resource. The carriage house addition project does not in any way alter the interior of the original building or any character-defining interior feature, and thus, these features will not be affected by the project.

In summary, construction of the proposed carriage house will not alter the integrity of materials, workmanship, design, association, feeling, or location of the Museum, and only minimally alters the integrity of setting. This minor change in setting does not in any way inhibit the Museum from expressing its historical significance as the Museum will still retain the character-defining features that enabled it to be listed in the NRHP in 1977. Therefore, the carriage house project will not cause a substantial adverse change to the former San Mateo County Courthouse, now San Mateo County History Museum, under CEQA.

4.2. LATHROP HOUSE

The proposed project would not constitute a substantial adverse change to the Lathrop House, a resource deriving its historical significance from its Gothic Revival architectural style as detailed in the above Identification and Description of Historical Resources section. At the time of the Lathrop House NRHP nomination in 1972, the physical characteristics of the house appear to be essentially identical to what they are presently. Although moved from the 1972 site to its current location in 2019, the settings of the two locations are similar. The setting at the prior site in 1972 consisted of large parking lots on the south side and behind, a single-story office building on the north side just beyond a small parking lot, and a three-story building across the street. There were no other residences on the block. A 2017 report prepared to assess the impacts of moving the Lathrop House noted the similarities in setting of the two sites, and that setting was not a contributing factor to the significance of the house. The report went on to conclude that moving the Lathrop House to its current location at the rear northwest corner of the Museum would not constitute a substantial adverse change to the Lathrop House under CEQA.[19] A letter from the National Register of Historic Places in 2018 concurred with that conclusion stating:

> The Lathrop House's current [prior] site has lost integrity of setting as a result of modern development and is threatened by potential further redevelopment. The current [prior] setting does not even represent the historic location of the 1863 building, as the house was previously relocated twice in 1894 and 1907. The original basis for listing in the National Register in 1973 was restricted to Criterion C (architecture) largely due to the loss of historic integrity of setting and location. The

[19] San Mateo County Manager's Office, "County Government Center Campus Development Project, Draft EIR," January 2018, 7-12, 7-13; Richard Brandi, "Review for Potential Impacts on Adjacent Historic Resources, San Mateo County Government Center Campus Development Project," prepared for MIG/TRA, Inc., December 12, 2017, 15.

> new site [current]--located a short distance away will provide a setting equally compatible with conveying the building's distinctive architectural significance.
>
> …the National Register has determined that the Lathrop House will not suffer an appreciable loss of integrity as a result of the move [to its present site] …[20]

Similar to the previous project to relocate the Lathrop House, the proposed carriage house project also presents a change in setting. Currently, the side (south elevation) of the Lathrop House is about 10 feet away from the two-story Annex addition of the Museum at its closest point, and a parking lot is behind the building (**Photograph 10** and **Photograph 11**). The carriage house will be about 29 feet from the Lathrop House and slightly taller (**Figure 3** and **Figure 4**). In addition to the construction of the carriage house, other aspects of the project include installing a 29-foot by 42-foot brick paver courtyard with planter boxes between the rear of the house and the carriage house in an area that is currently a parking lot, construction of a stucco-clad or painted concrete block trash enclosure with metal gate that will be seven feet, two inches away from the house, and a six-foot-tall metal picket fence at the sidewalk edge along the rear portion of the Marshall Street side of the house. In assessing the impacts related to setting, the 2017 analysis for the Lathrop House relocation project is germane. The 2017 findings that received National Park Service / NRHP concurrence determined that setting holds virtually no bearing on the historical significance and NRHP status of the Lathrop House, and thus, as a historical resource under CEQA. The present analysis agrees with this determination and puts forth the same argument to support the conclusion that the carriage house project, while altering the setting, will not affect the ability of the Lathrop House to convey its historical significance, which is based on the architecture as constituted in the physical elements of the building and does not include setting or landscape architecture elements.

Project plans call for one physical alteration to the Lathrop House: the removal of a back-door stairway. This is a simple and austere four-step wood stairway with a cylindrical metal railing of the same design as the front stairway. It is unclear if this stairway was on the house when it was listed in the NRHP in 1973, but a backdoor stairway of some type was on the building just prior to its move in 2019. In any case, historic Sanborn maps from the nineteenth century, the period of significance for the Lathrop House, do not show a back stairway, rather, an outhouse is attached to the residence at the location of the current back stairway.[21] Therefore, the stairway is not a contributing feature of the house and its removal will not constitute a substantial adverse change under CEQA.

In summary, construction of the proposed carriage house will not alter the integrity of materials, workmanship, design, association, feeling, or location of the Lathrop House. It will change the setting, but this will have no impact on the integrity of the Lathrop House as setting has no bearing

[20] Paul R. Lusignan to Julianne Polanco, July 10, 2018.
[21] Sanborn Map Company, *Redwood City* (New York: Sanborn Map Company, 1888, 1897, 1907).

on the historical significance of the resource. Therefore, the carriage house project will not cause a substantial adverse change to the Lathrop House under CEQA.

Photograph 10. View showing the rear elevation of the Lathrop House, the distance between the house and the 1941 addition of the Museum, and in the foreground the site of the proposed carriage house. (Photo by MIG, December 3, 2019.)

Photograph 11. View showing the parking lot and site of the proposed carriage house, and the rear corner of the Lathrop House on the far right (Photo by MIG, December 3, 2019.)

4.3. CUMULATIVE IMPACTS

The proposed project will not cause a cumulative impact to either the Museum or Lathrop House. As noted above, none of the elements of this project will diminish in any way the character-defining features of the Museum or Lathrop House that enable these properties to express their significance and be historical resources for the purposes of CEQA. Thus, there are no impacts that taken together with those from previous projects, or those in the foreseeable future, that would cause a cumulative impact.

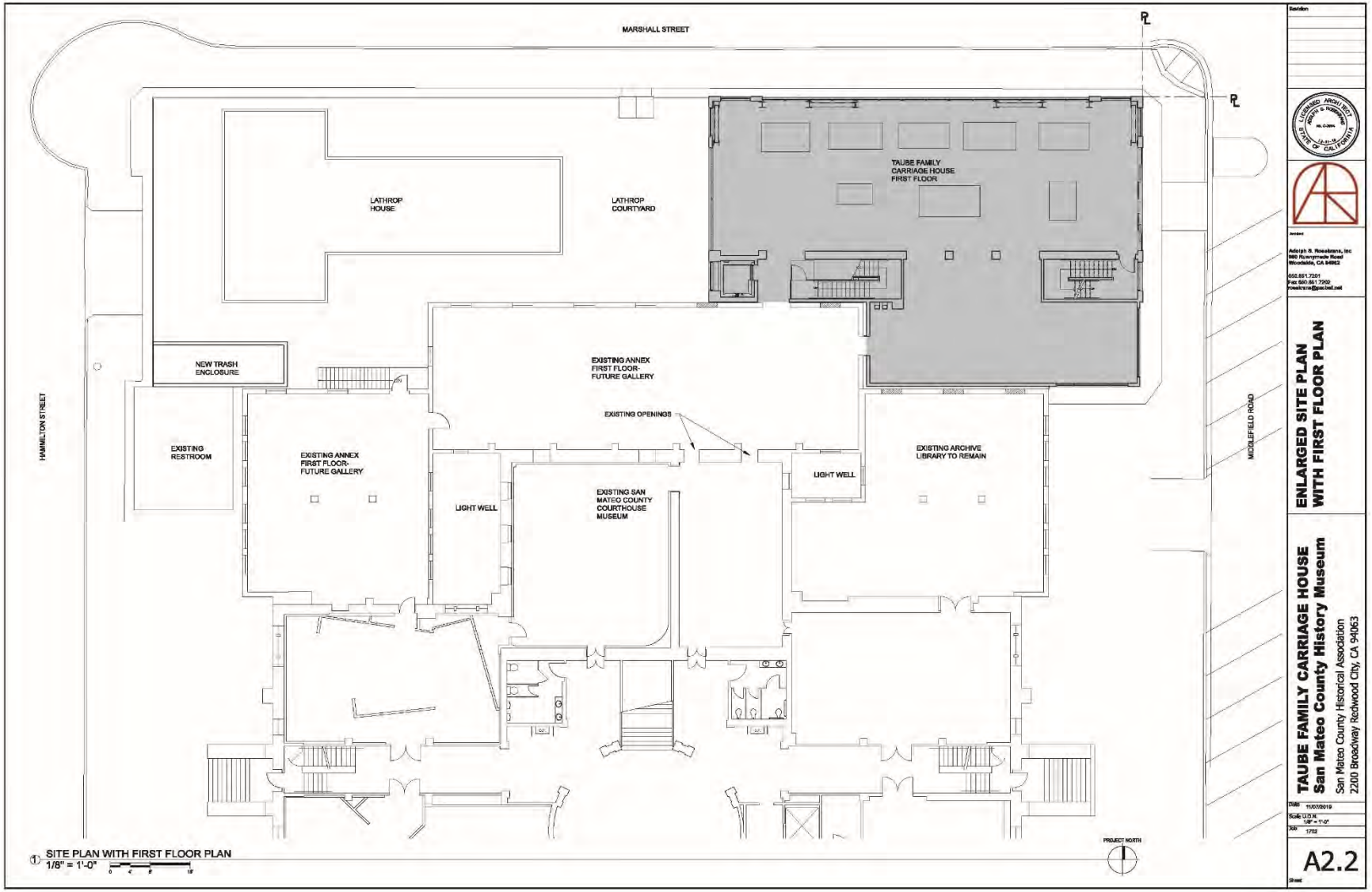

Figure 3: Partial site plan showing the north half of the Museum including the 1941 Annex, the proposed carriage house addition footprint (shaded area), and in the northwest corner the Lathrop House footprint. (Plans by Adolph S. Rosenkrans, Inc.)

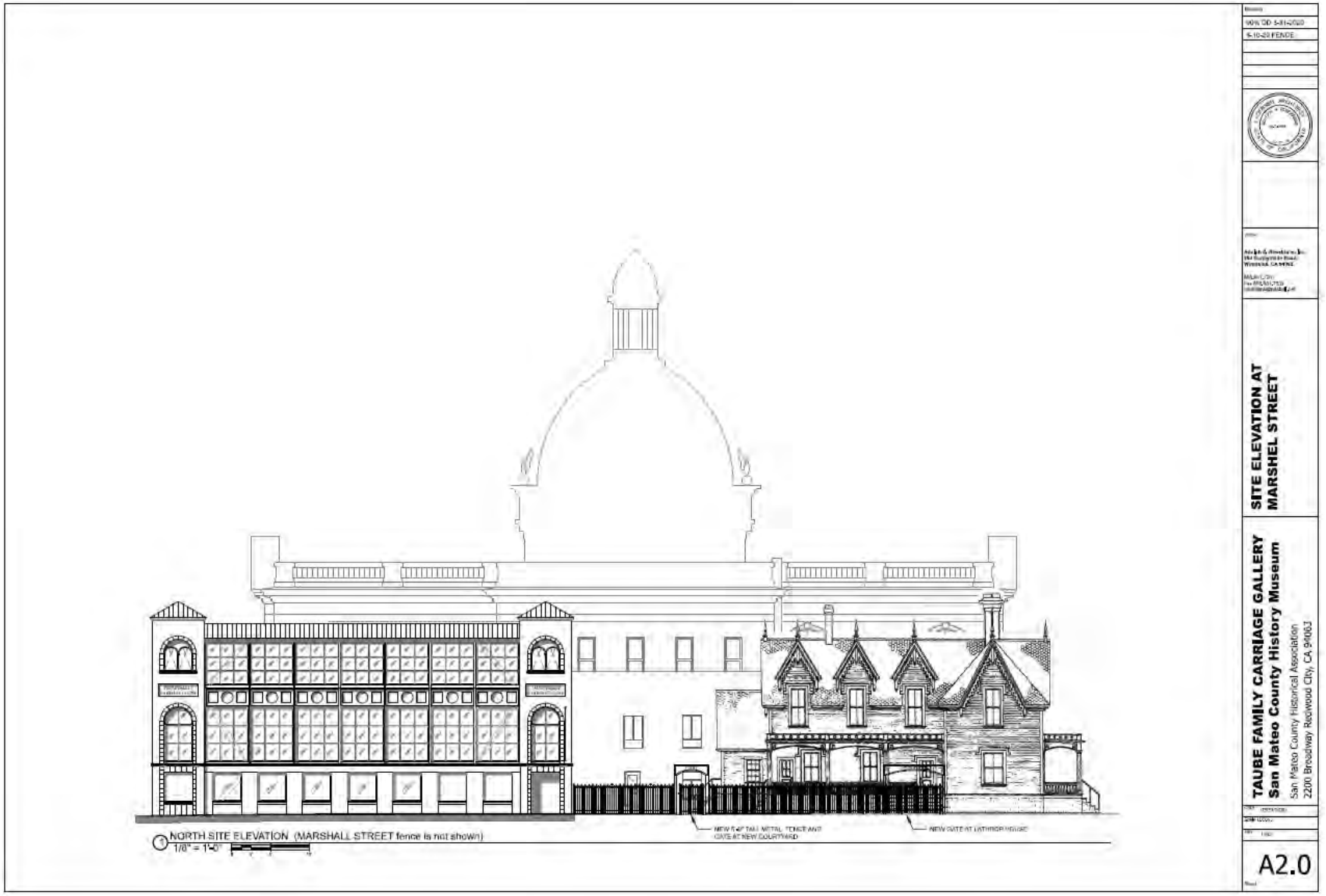

Figure 4: North Elevation (Marshall Street) showing the proposed carriage house on the left and the Lathrop House on the right. The lighter imprint in the background is the Museum. (Plans by Adolph S. Rosenkrans, Inc.)

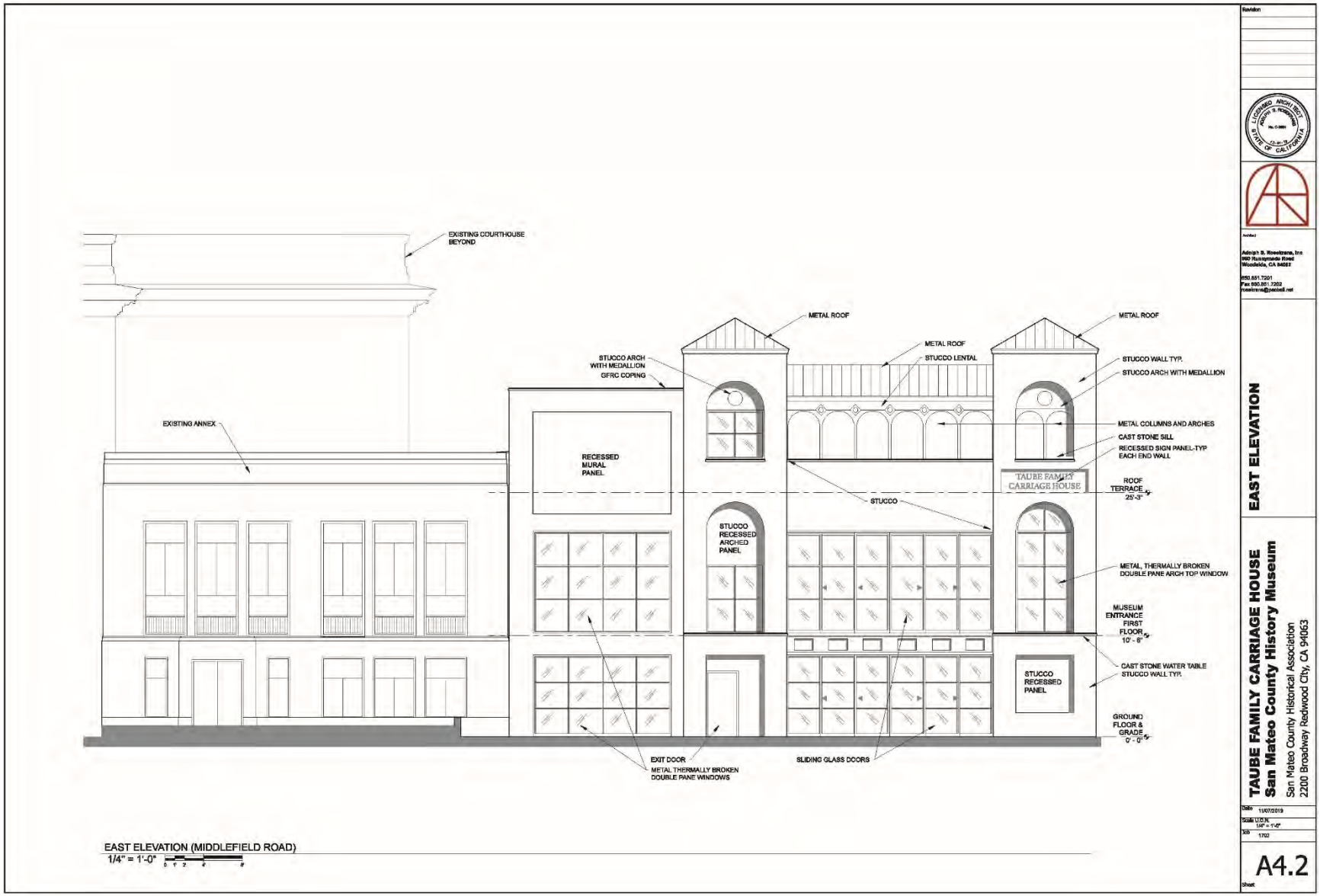

Figure 5: East elevation (Middlefield Road) showing the proposed carriage house on the right and the lighter imprint on the left depicting the 1941 Annex and Museum. This drawing also shows the height of the carriage house relative to the Museum. (Plans by Adolph S. Rosenkrans, Inc.)

5. PREPARERS' QUALIFICATIONS

JRP Principal and Architectural Historian, Christopher D. McMorris (M.S., Historic Preservation, Columbia University, New York) oversaw and contributed to this Historical Resource Report. Mr. McMorris has more than 21 years of experience and specializes in conducting historic resource studies for compliance with CEQA and Section 106 of the National Historic Preservation Act, as well as other historic preservation projects. He has served as a lead historian, principal investigator, and project manager on federal, state, and local government projects as well as for engineering/environmental consulting firms, including effects analysis projects. Based on his level of education and experience, Mr. McMorris meets and exceeds the United States Secretary of the Interior's Professional Qualification Standards under History and Architectural History (as defined in 36 CFR Part 61).

JRP Staff Architectural Historian Steven J. "Mel" Melvin (M.A., Public History, California State University, Sacramento) was the lead historian for this project and primary author of this report. Mr. Melvin has over 14 years of experience as a historian/architectural historian conducting built environment cultural resources inventories, evaluations, and effects analysis. Mr. Melvin meets and exceeds the Secretary of the Interior's Professional Qualification Standards under History and Architectural History (as defined in 36 CFR Part 61).

6. BIBLIOGRAPHY

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Appendix A

National Register Nomination Forms:

-San Mateo County Courthouse

-Lathrop House

Form No. 10-300 (Rev. 10-74)

DATA SHEET

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED JAN 31 1977
DATE ENTERED DEC 13 1977

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC: San Mateo County Courthouse

AND/OR COMMON:

2 LOCATION

STREET & NUMBER: Broadway — NOT FOR PUBLICATION

CITY, TOWN: Redwood City — VICINITY OF — CONGRESSIONAL DISTRICT: 11th

STATE: California — CODE: 06 — COUNTY: San Mateo — CODE: 081

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	X PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
X BUILDING(S)	__PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	PUBLIC ACQUISITION	ACCESSIBLE	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	X GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	X YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		__NO	__MILITARY	__OTHER:

4 OWNER OF PROPERTY

NAME: County of San Mateo

STREET & NUMBER: Broadway

CITY, TOWN: Redwood City — VICINITY OF Palo Alto — STATE: California

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE REGISTRY OF DEEDS, ETC: San Mateo County Recorder's Office

STREET & NUMBER: Hall of Records Marshall Street

CITY, TOWN: Redwood City — STATE: California

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
(1) Historic American Buildings Survey, National Park Service
(2) Junior League of Palo Alto -- Heritage Project
(3) Junior League of San Francisco

DATE: (1) 1974 (2) 1973 (3) 1964 — 1 FEDERAL __STATE 2 & 3 COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS: (1) Library of Congress (2) Jr. League of P.A. (3) San Mateo County Museum

CITY, TOWN
(1) Washington, D.C.
(2) ~~Menlo Park, California~~
(3) San Mateo, California

STATE

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	_DETERIORATED	_UNALTERED	X ORIGINAL SITE
X GOOD	_RUINS	X ALTERED	_MOVED DATE_____
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

When San Mateo County's population began to increase at the turn of the century a new courthouse was provided out of a direct tax. In 1903 the plans of George A. Dodge of Dodge & Dolliver of San Francisco were accepted; the American-Hawaiian Engineering & Construction Company was awarded the building contract. On 15 February 1906 when the building was accepted by the Board of Supervisors its cost was $240,000, or double the estimated cost. The building was about to be occupied when the 18 April 1906 earthquake struck. Much of the stone facing of the building peeled off, but the featured 116-1/2 foot steel ribbed dome and its art glass remained intact. During the reconstruction it was discovered that its steel cage had not been bolted to the foundation. Much of the building's structural damage was accounted for by an inverted pendulum effect of the great weight of the dome. Today the same dome is supported by lattice rivet steel work with direct independent supports to the ground.

It was concluded that the building could be restored at a "reasonable cost." On the advice of architect A. I. Coffey the third floor was to be omitted in the re-building. A competition was set up for submission of plans, requiring the same general appearance as the original structure. The original foundation was to be used except for an additional wing at the rear. The second time more attention was to be paid to steel framing and fireproofing. In January 1907 Glen Allen won the commission and since he was to be paid as the superintendent of construction he was given a token of one dollar. Joseph J. O'Brien Construction Company's bid for $160,000 was accepted with a completion deadline of November 1908.

In January 1908 the Grand Jury filed charges against the Board of Supervisors for a fraudulent contract. By May 1908 it was recognized that Allen had made costly "oversights" in his specifications, and Donald McKenzie replaced him as superintendent.

After three years of construction, changes, overpayments, discrepancies and scandals the courthouse was officially occupied on 23 June 1910. In contrast to the estimated $175,000, the second edition cost one-half million dollars.

The Colusa Sandstone Company furnished an excellent quality of gray stone. The most impressive exterior detail still showing are the colossal order with American eagle capitals.

A true appreciation of the building is not experienced until one walks inside and looks up from the magnificient central rotunda at the beautifully crafted, colorful stained glass in its patriotic motifs. The rotunda is 40 feet in diameter. The dome is supported by sixteen dark green scagliola columns on each floor level. The rotunda and corridors are wainscoted with polished Columbian marble and the floors are of ceramic mosaic with geometric Greek borders. The floor of the rotunda is made of panels radiating from the center feature, a handcut mosaic reproduction of the Great Seal of the State of California.

The main stairway leading to the second story is attractively finished in bronze, iron and marble. A 40 x 54 foot courtroom at the rear of the second floor is a strikingly beautiful room, having an elaborate ceiling with a large oval art glass dome.

In 1933 architect W. H. Toepke hurriedly designed a poorly planned, dissimilar, three-story Federal style addition on the front, which obliterated the magnificient 1910 main entrance. The unforgivable architectural miscarriage was built with PWA funds for $236,310 and can only be justified because it gave jobs to the unemployed. In 1941 the same architect was permitted to append an even more hideous one-story box to the rear of the courthouse for another $50,000 from county funds.

8 SIGNIFICANCE

PERIOD

_PREHISTORIC	_ARCHEOLOGY-
_1400-1499	_ARCHEOLOGY-
_1500-1599	_AGRICULTURE
_1600-1699	X ARCHITECTURE
_1700-1799	_ART
_1800-1899	_COMMERCE
X 1900-	_COMMUNICATI

SPECIFIC DATES 1907-191(

STATEMENT OF SIGNIFICANC

The 1910 co
very popular Roman-Re
of craftsmanship in s
exquisite stain glass
unequalled on the San

The buildin
offices -- have not b
lamp fixtures, furnis
ornamentation, scored

Due to the
features and the beau
Even in the present f
architectural charact
dome continues to dom
remind it of the coun
community.

The bldg. we
for listing as a
design & craftsm
historical
facility.

:HECK ONE

ORIGINAL SITE

MOVED DATE_____

RANCE

:he turn of the century
ıns of George A. Dodge
ıwaiian Engineering
)bruary 1906 when the
),000, or double the
April 1906 earthquake
:he featured 116-1/2
:he reconstruction
)undation. Much of
)endulum effect of
lattice rivet steel

ı "reasonable cost."
)mitted in the
quiring the same
:ion was to be used
:tention was to be
ı won the commission
ıe was given a token
160,000 was accepted

Board of Supervisors
:n had made costly
.m as superintendent.
, discrepancies and
In contrast to the
'e.
.ty of gray stone.
order with

ıtil one walks inside
.ly crafted, colorful
diameter. The dome
level. The rotunda
: floors are of
ında is made of
:tion of the Great

.vely finished in
:he second floor is
'ge oval art glass

.y planned, dissimilar,
the magnificient
ı built with PWA
:o the unemployed.
leous one-story
funds.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION	
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE	
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE	
__1600-1699	X ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN	
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER	
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION	
X 1900-	__COMMUNICATIONS	__INDUSTRY	X POLITICS/GOVERNMENT	__OTHER (SPECIFY)	
		__INVENTION			

SPECIFIC DATES 1907-1910

BUILDER/ARCHITECT Architect, Glen Allen following the example of the 1903-6 architect's design, George A. Dodge.
Joseph J. O'Brien Construction Company

STATEMENT OF SIGNIFICANCE

The 1910 county courthouse is a rare example in the Bay area of the once very popular Roman-Renaissance style of architecture. It possesses an unusual display of craftsmanship in stone carving, excellent scagliola, iron work and mosaics. The exquisite stain glass skylights in the main dome and in the Judge's chamber are unequalled on the San Francisco Peninsula.

The building's major interior spaces -- rotunda, halls, courtrooms and offices -- have not been altered throughout the building's life. Some of the original lamp fixtures, furnishings, etc. exist in daily use. One can see the ceiling plaster ornamentation, scored stone-like wood fiber plaster walls, etc.

Due to the defacement of the main entrance the exterior architectural features and the beauty of the original building may be unnoted by the general public. Even in the present form with the additions of dissimilarly styled annexes, the architectural character of the original building has been retained. Its stately dome continues to dominate the skyline of present-day Redwood City as though to remind it of the county's history and the role of the building in the life of the community.

The wings are included in the property considered for listing as examples of 1930s/1940s architectural design & craftsmanship, & as an aspect of the historical development of the courthouse-facility.

L. Beale
NR/OAHP 12/8/77

Form No. 10-300a
(Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
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DATE ENTERED DEC 13 1977

CONTINUATION SHEET ITEM NUMBER 9 PAGE 4

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9 MAJOR BIBLIOGRAPHICAL REFERENCES

See Continuation Sheet

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY City block, 200' x 300' (1.38 acres)

UTM REFERENCES

	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
A	10	596220	4149990	B			
C				D			

VERBAL BOUNDARY DESCRIPTION

City block bounded on the south by Broadway, west by Middlefield Road, north by Marshall Street, and east by Hamilton Avenue.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Dorothy F. Regnery

ORGANIZATION
for the Junior League of Palo Alto

DATE
19 November 1976

STREET & NUMBER
488 Westridge Drive

TELEPHONE
415-854-5074

CITY OR TOWN
Portola Valley

STATE
California

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE ___ LOCAL X

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

[redacted] SIGNATURE

TITLE SHPO DATE 1-21-77

FOR NPS USE ONLY

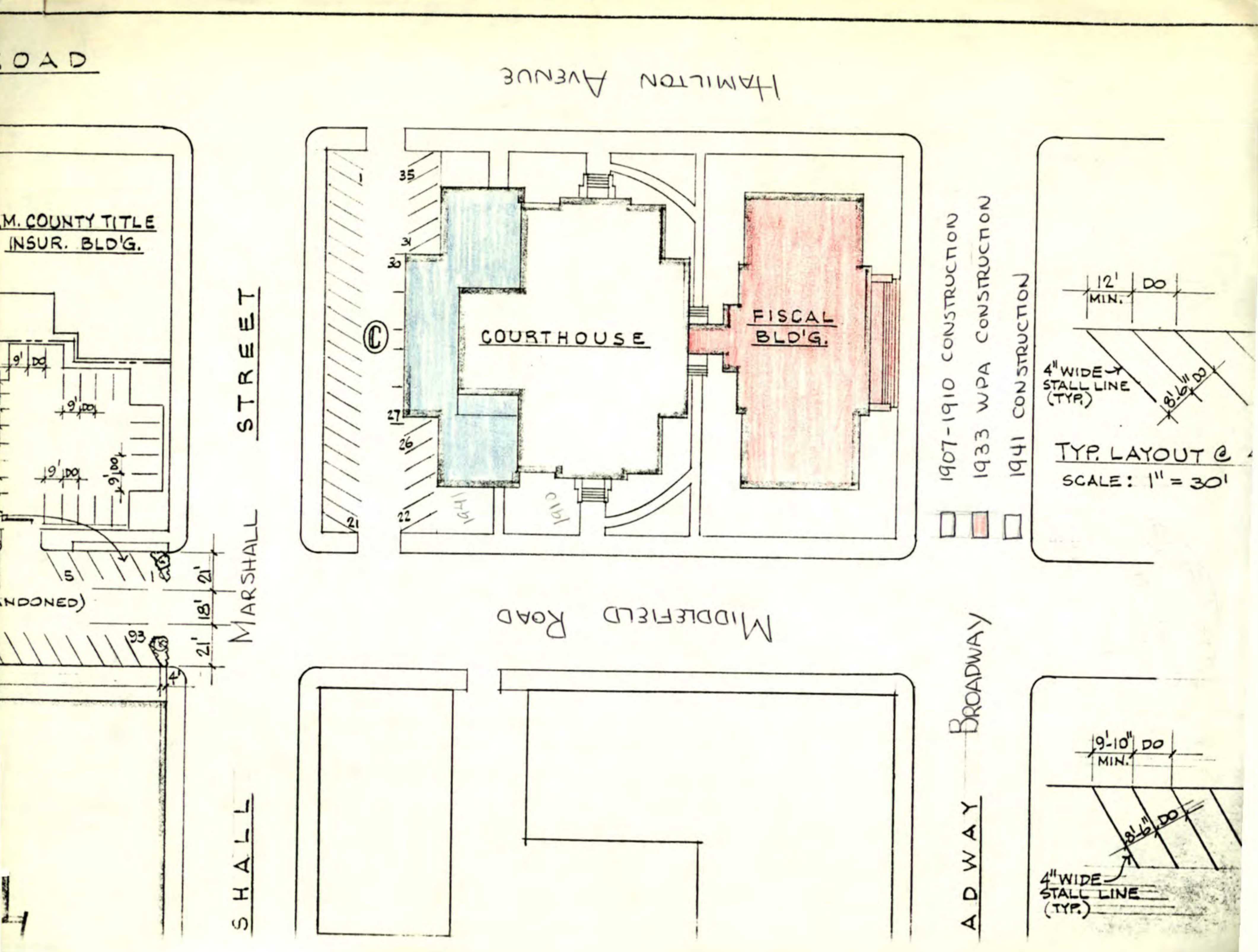
I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE 12/13/77

~~DIRECTOR, OFFICE OF ARCHEOLOGY & HISTORIC PRESERVATION~~ KEEPER OF THE NATIONAL REGISTER

ATTEST: Charles Abernathy DATE 12.2.77

~~KEEPER OF THE NATIONAL REGISTER~~



OAD
HAMILTON AVENUE
M. COUNTY TITLE INSUR. BLD'G.
STREET
COURTHOUSE
FISCAL BLD'G.
1907-1910 CONSTRUCTION
1933 WPA CONSTRUCTION
1941 CONSTRUCTION
12' MIN.
DO
4" WIDE STALL LINE (TYP.)
8'-6" DO
TYP. LAYOUT @
SCALE: 1" = 30'
1941
1910
NDONED)
MARSHALL
MIDDLEFIELD ROAD
BROADWAY
9'-10" MIN.
DO
8'-6" DO
4" WIDE STALL LINE (TYP.)
SHALL
ADWAY
21'
18'
21'
4'
9' DO

RECEIVED
SEP 28 1977
NATIONAL
REGISTER

DEC 13 1977


MUNICIPAL COURT C
CIVIL COURT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PALO ALTO QUADRANGLE
CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
NW/4 PALO ALTO 15' QUADRANGLE

SAN MATEO COUNTY COURTHOUSE
Redwood City, San Mateo County, California

UTM Reference
10/568220/4149000

Mapped, edited, and published by the Geological Survey
with cooperation by the California Department of Water Resources

Control by USGS, USC&GS, and USCE

Topography from aerial photographs by photogrammetric methods and by planetable surveys 1953. Aerial photographs taken 1948. Revised from aerial photographs taken 1960. Field checked 1961

Polyconic projection. 1927 North American datum
10,000-foot grid based on California coordinate system, zone 3
1000-meter Universal Transverse Mercator grid ticks, zone 10, shown in blue

Red tint indicates area in which only landmark buildings are shown

Dashed land lines indicate approximate locations

Fine red dashed lines indicate selected fence lines

A portion of this map lies within a subsidence area

UTM GRID AND 1973 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 7 FEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

RECEIVED
JAN 31 1977
NATIONAL REGISTER
DEC 13 1977

QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty	Light-duty
Medium-duty	Unimproved dirt
Interstate Route	U.S. Route / State Route

Revisions shown in purple compiled from aerial photographs taken 1968 and 1973. This information not field checked

Purple tint indicates extension of urban areas

PALO ALTO, CALIF.
NW/4 PALO ALTO 15' QUADRANGLE
N3722.5—W12207.5/7.5

1961
PHOTOREVISED 1968 AND 1973
AMS 1558 I NW—SERIES V895

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1974

PH00 76287

Form 10-300
(July 1969)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY – NOMINATION FORM

(Type all entries – complete applicable sections)

STATE: California
COUNTY: San Mateo
FOR NPS USE ONLY
ENTRY NUMBER | DATE
APR 11 1973

1. NAME

COMMON: Lathrop House
AND/OR HISTORIC:

RECEIVED
OCT 10 1972
NATIONAL REGISTER

2. LOCATION

STREET AND NUMBER: 627 Hamilton Street
CITY OR TOWN: Redwood City
STATE: California 94063 | CODE: 06 | COUNTY: San Mateo | CODE: 081

3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP		STATUS	ACCESSIBLE TO THE PUBLIC
☐ District ☒ Building ☐ Site ☐ Structure ☐ Object	☒ Public ☐ Private ☐ Both	Public Acquisition: ☐ In Process ☐ Being Considered	☐ Occupied ☒ Unoccupied ☒ Preservation work in progress	Yes: ☒ Restricted ☐ Unrestricted ☐ No

PRESENT USE (Check One or More as Appropriate)

☐ Agricultural	☐ Government	☐ Park	☐ Transportation	☐ Comments
☐ Commercial	☐ Industrial	☐ Private Residence	☒ Other (Specify) Preservation Work in Progress	
☐ Educational	☐ Military	☐ Religious		
☐ Entertainment	☐ Museum	☐ Scientific		

4. OWNER OF PROPERTY

OWNER'S NAME: County of San Mateo
STREET AND NUMBER: County Government Center
CITY OR TOWN: Redwood City
STATE: California 94063 | CODE: 06

5. LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC: County Clerk - Recorder
STREET AND NUMBER: Hall of Justice and Records
CITY OR TOWN: Redwood City
STATE: California 94063 | CODE: 06

6. REPRESENTATION IN EXISTING SURVEYS

TITLE OF SURVEY: None
DATE OF SURVEY: ☐ Federal ☐ State ☐ County ☐ Local
DEPOSITORY FOR SURVEY RECORDS:
STREET AND NUMBER:
CITY OR TOWN: | STATE: | CODE:

SEE INSTRUCTIONS

STATE: California
COUNTY: San Mateo
FOR NPS USE ONLY
ENTRY NUMBER: APR 11 1973
DATE

7. DESCRIPTION

CONDITION	(Check One)					
	☐ Excellent	☒ Good	☐ Fair	☐ Deteriorated	☐ Ruins	☐ Unexposed
	(Check One)		(Check One)			
	☒ Altered	☐ Unaltered	☒ Moved	☐ Original Site		

DESCRIBE THE PRESENT AND ORIGINAL *(if known)* PHYSICAL APPEARANCE

The exterior of the house has been restored to its original condition with minor exceptions. Several photographs, taken a relatively short time after the original construction, were valuable as a source of information. Appendages which had been added to the building were removed revealing the true identity of the house. Where possible the existing materials, trim and decoration were repaired and utilized. In cases where this was impossible, due to deterioration or loss, the item was reproduced identically to match a like part as in the case of the finials and railings. As all the pendents were missing the supporting members were surveyed for evidence of size and contour and the photographs were studied to determine the actual shape.

The New redwood shingles for the roof were cut to match the original and care was taken to lap the shingles in the unusual pattern of the initial installation. The exterior has been painted based on shades and tones of areas which were concealed by additions and from studies of structures of a similar period.

The interior has suffered considerably over the past several years and as a result will require extensive renovation. Some exploratory work has been accomplished which has revealed concealed stairs, original ceilings, fireplace foundations and evidence of walls which had been removed. Also, interior partitions added at a later period have been removed.

The present plans are to move forward when funds are available to complete the interior restoration.

E. Bradford Street west of Middlefield Road and Hamilton Street from E. Bradford Street to E. Marshall Street have been abandoned and will be converted to a mall. This will add an open space more in keeping with the style of the house.

The House was originally built in 1863 on a site fronting on Broadway, Redwood City. This site including the house was sold in 1894 to the school district. The house was moved to the rear and a new school was built on the site. In 1905 the school district sold the house and it was moved by the new owner to its present site.

RECEIVED
OCT 10 1972
NATIONAL REGISTER

SEE INSTRUCTIONS

8. SIGNIFICANCE

PERIOD *(Check One or More as Appropriate)*

☐ Pre-Columbian	☐ 16th Century	☐ 18th Century	☐ 20th Century
☐ 15th Century	☐ 17th Century	☒ 19th Century	

SPECIFIC DATE(S) *(If Applicable and Known)*

AREAS OF SIGNIFICANCE *(Check One or More as Appropriate)*

Aboriginal	☐ Education	☐ Political	☐ Urban Planning
☐ Prehistoric	☐ Engineering	☐ Religion/Philosophy	☐ Other *(Specify)*
☐ Historic	☐ Industry	☐ Science	
☐ Agriculture	☐ Invention	☐ Sculpture	
☒ Architecture	☐ Landscape Architecture	☐ Social/Humanitarian	
☐ Art	☐ Literature	☐ Theater	
☐ Commerce	☐ Military	☐ Transportation	
☐ Communications	☐ Music		
☐ Conservation			

STATEMENT OF SIGNIFICANCE

The Architectural revival, including the Gothic, appeared in the Eastern United States around 1830 and moved westward in the late 1840's. It was still being built in California in the 1860's in a simplified form.

Gothic motifs, translated into wood, were applied to a basic Colonial frame house. Classical influences appeared in the symmetrical facade, Colonial influences in the horizontal siding and Baroque influence in the front porches, central door and sometimes a central main gable.

The Benjamin Lathrop house is architecturally important because it is an outstanding example of this style. Its tall gables and arches pierced by quadifoil designs is a prime example of its type, unique in the County of San Mateo. For this reason we feel the preservation of the Lathrop House is significant.

SEE INSTRUCTIONS

9. MAJOR BIBLIOGRAPHICAL REFERENCES

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2. Junior League of San Francisco. Here Today. pp 163.
3. Kirker, H., California's Architectural Frontier. Pasadena, California. H. E. Huntington Library and Art Gallery. 1960, p. 58.
4. Spangler, R., "Benjamin G. Lathrop". The Redwood City Tribune. February 28, 1966. From B. F. Alley: History of San Mateo County. 1883.
5. Deeds and Official Records of San Mateo County.

10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY						OR	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES					
CORNER	LATITUDE			LONGITUDE			LATITUDE			LONGITUDE		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
NW	°	'	"	°	'	"	37 °	29 '	13 "	122 °	13'	43 "
NE	°	'	"	°	'	"						
SE	°	'	"	°	'	"						
SW	°	'	"	°	'	"						

10/568190
4149060
CD

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: .114+ acres (5,000 square feet)

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE

RECEIVED
OCT 10 1972
NATIONAL REGISTER

SEE INSTRUCTIONS

11. FORM PREPARED BY

NAME AND TITLE:
Henry P. Tarratt, Director, Building Constr. & Gen. Services

ORGANIZATION
County of San Mateo

DATE
July 3, 1972

STREET AND NUMBER:
590 Hamilton Street

CITY OR TOWN:
Redwood City

STATE
California 94063

CODE
06

12. STATE LIAISON OFFICER CERTIFICATION

As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:

National ☐ State ☐ Local ☒

Name _____

Title State Liaison Officer

Date September 27, 1972

NATIONAL REGISTER VERIFICATION

I hereby certify that this property is included in the National Register.

Robert M. Utley

Chief, Office of Archeology and Historic Preservation

Date 4/11/73

ATTEST:

Keeper of The National Register

Date 4 4 73

PROPERTY Lathrop House STATE Calif San Mateo

Working number 10.10.72.10 33

TECH REVIEW 5-23-73 Photos 3 Maps 2

73000448

REVIEW N.J 1-9-73 OK

HISTORIAN Accept - DML 3/2/73

ARCHEOLOGIST Accept [illegible] 3-15-73

ARCHITECT accept Cath 3-22-73

BRANCH CHIEF OK [illegible] 3/30/73

EDITORIAL REVIEW

KEEPER [illegible] 4.7

National Register write-up

Federal Register entry 6-5-73

Acknowledge 10/11/72

Send-back

Re-submit

APR 11 1973

Register no.


FORD

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PALO ALTO QUADRANGLE
CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
NW/4 PALO ALTO 15' QUADRANGLE

RECEIVED
OCT 10 1972
NATIONAL REGISTER

10/568 190
4149 060
CD

Mapped, edited, and published by the Geological Survey
with cooperation by the California Department of Water Resources

Control by USGS, USC&GS, and USCE

Topography from aerial photographs by photogrammetric methods and by planetable surveys 1953. Aerial photographs taken 1948. Revised from aerial photographs taken 1960. Field checked 1961

Polyconic projection. 1927 North American datum
10,000-foot grid based on California coordinate system, zone 3
1000-meter Universal Transverse Mercator grid ticks,
zone 10, shown in blue

Red tint indicates area in which only landmark buildings are shown

Dashed land lines indicate approximate locations

Fine red dashed lines indicate selected fence lines

A portion of this map lies within a subsidence area

UTM GRID AND 1968 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 7 FEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

ROAD CLASSIFICATION
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
Interstate Route — U. S. Route — State Route

Revisions shown in purple compiled from aerial photographs taken 1968. This information not field checked

Purple tint indicates extension of urban areas

PALO ALTO, CALIF.
NW/4 PALO ALTO 15' QUADRANGLE
N3722.5—W12207.5/7.5

1961
PHOTOREVISED 1968
AMS 1558 I NW—SERIES V895

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1969

TAX CODE AREA

EMBARCADERO SUB.

52-34

JEFFERSON AVE.

BOULEVARD

E. FULLER ST.

E. BRADFORD ST.

ST.

MIDDLEFIELD ROAD

VETERANS

PULGAS RANCHO

FULLER (Aband.) ST.

BREWSTER

RANGE E AVE.

WINSLOW ST.

FULLER ST.

E. BRADFORD (Aband.) ST.

E. MARSHALL ST.

HAMILTON (Aband.) ST.

RANGE E

RANGE D

RANGE C

345 346 347 341 344

1" = 100'

RECEIVED
OCT 10 1972
NATIONAL REGISTER

PROPERTY MAP FOR
LATHROP HOUSE
OWNER: COUNTY OF SAN MATEO
HALL OF JUSTICE AND RECORDS
REDWOOD CITY, CALIFORNIA

ASSESSOR'S MAP COUNTY OF SAN MATEO, CALIF. △ RANGES TOWN OF MEZESVILLE PTN. OF RSM 01/79

2-8-71

San Mateo County History Museum
Taube Family Carriage House Addition

Appendix D: Traffic Report

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Hexagon Transportation Consultants, Inc.

Memorandum

Date: April 8, 2020

To: Ms. Kate Werner, MIG, Inc.

From: Michelle Hunt
Shikha Jain

Subject: Traffic Analysis for the Proposed San Mateo County History Museum Expansion in Redwood City, California

Hexagon Transportation Consultants, Inc. has completed a traffic analysis for the proposed San Mateo County History Museum Expansion in Redwood City, California. The project site is located at 2200 Broadway on the southwest corner of Middlefield Road and Marshall Street (shown on Figure 1). The project would construct a 14,000 square foot museum addition, known as the Taube Family Carriage House, containing exhibit space on the first two floors and special event space on the third floor. The existing square footage of the museum is 56,540 square feet. The proposed site plan is shown on Figures 2 and 3.

Project impacts have been evaluated in accordance with the requirements of Redwood City. The proposed project would generate fewer than 100 peak-hour trips and is therefore not subject to review by the City/County Association of Governments (C/CAG). Likewise, the project is expected to generate less than 150 vehicle trips on a typical (non-event) day. Thus, according to the City of Redwood City's proposed new TA guidelines, the project can be assumed to have a less than significant impact on vehicle miles traveled. Therefore, the transportation analysis includes a limited evaluation of project trip generation and multimodal access.

Trip Generation

Trip generation for the San Mateo County History Museum expansion was developed for a typical weekday, weekday with evening special event, and weekday with daytime special event for daily, AM (7 to 9 AM), and PM (4 to 6PM) peak hours (see Table 1). Trip generation estimates for the expansion were developed separately for employees and for visitors based on data provided by the San Mateo County History Museum for its existing uses. Data from the ITE *Trip Generation Manual, 10th Edition*, 2017, Land Use 580 (museum) are based on only one observation and are not statistically reliable, and hence were not used in developing the trip estimates.

On a typical weekday, trips would be generated by new employees and new visitors to the expansion. Per the San Mateo County History Museum website, the museum has a staff of 22 employees. The existing museum is 56,540 square feet. Therefore, the number of employees per 1,000 square feet (ksf) is 0.39. The number of potential new museum employees was calculated by multiplying this rate (0.39 employees per ksf) by the size of the proposed expansion (14 ksf), which yields an estimated five new employees. To be conservative, all employees are assumed to drive alone to and from work during the AM and PM peak hours. Therefore, all employee trips in the AM peak hour would be inbound and all employee trips in the PM peak hour would be outbound. The daily employee trips are the sum of the inbound and outbound trips in the peak hours.

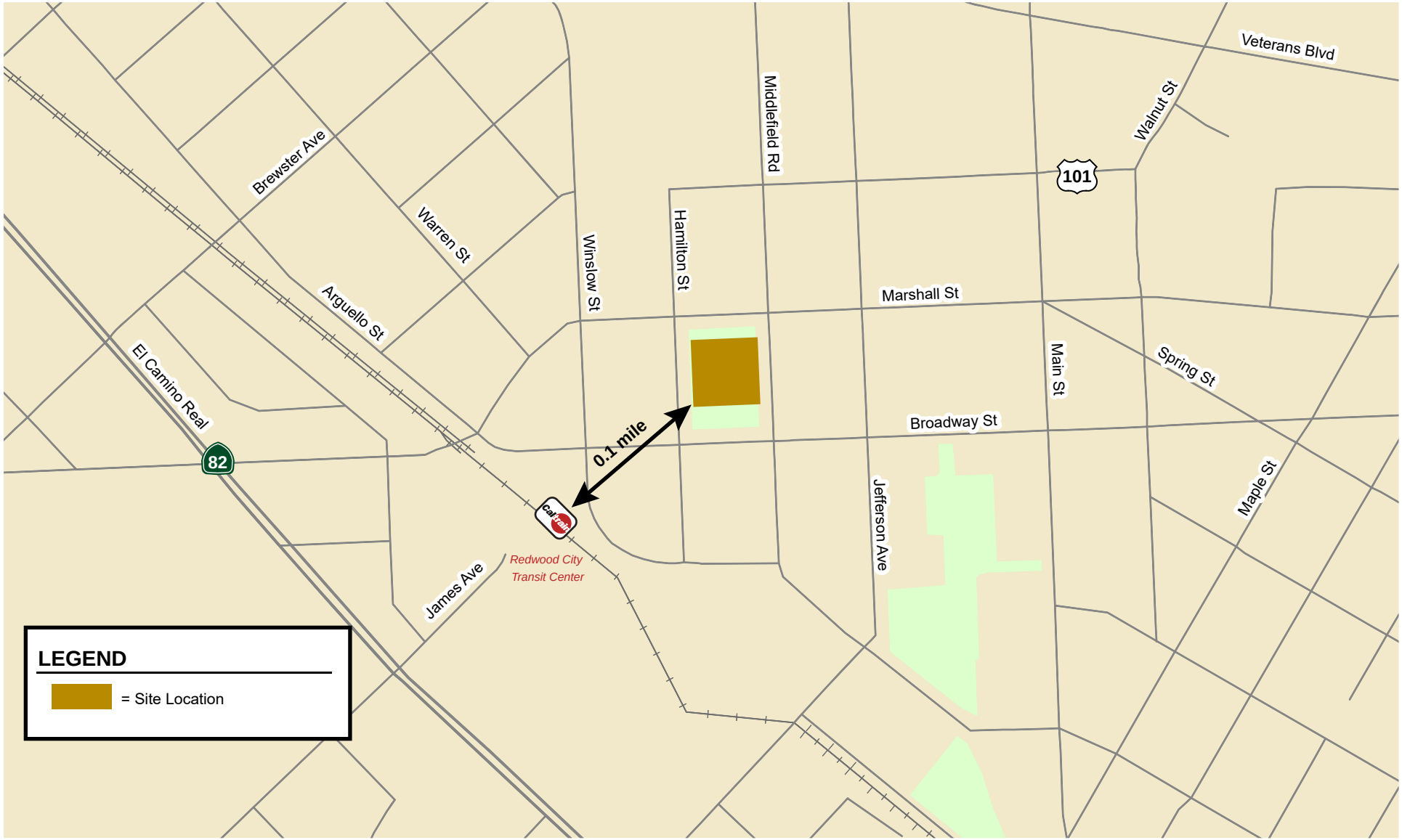

Figure 1
Project Location

NORTH
Not to Scale

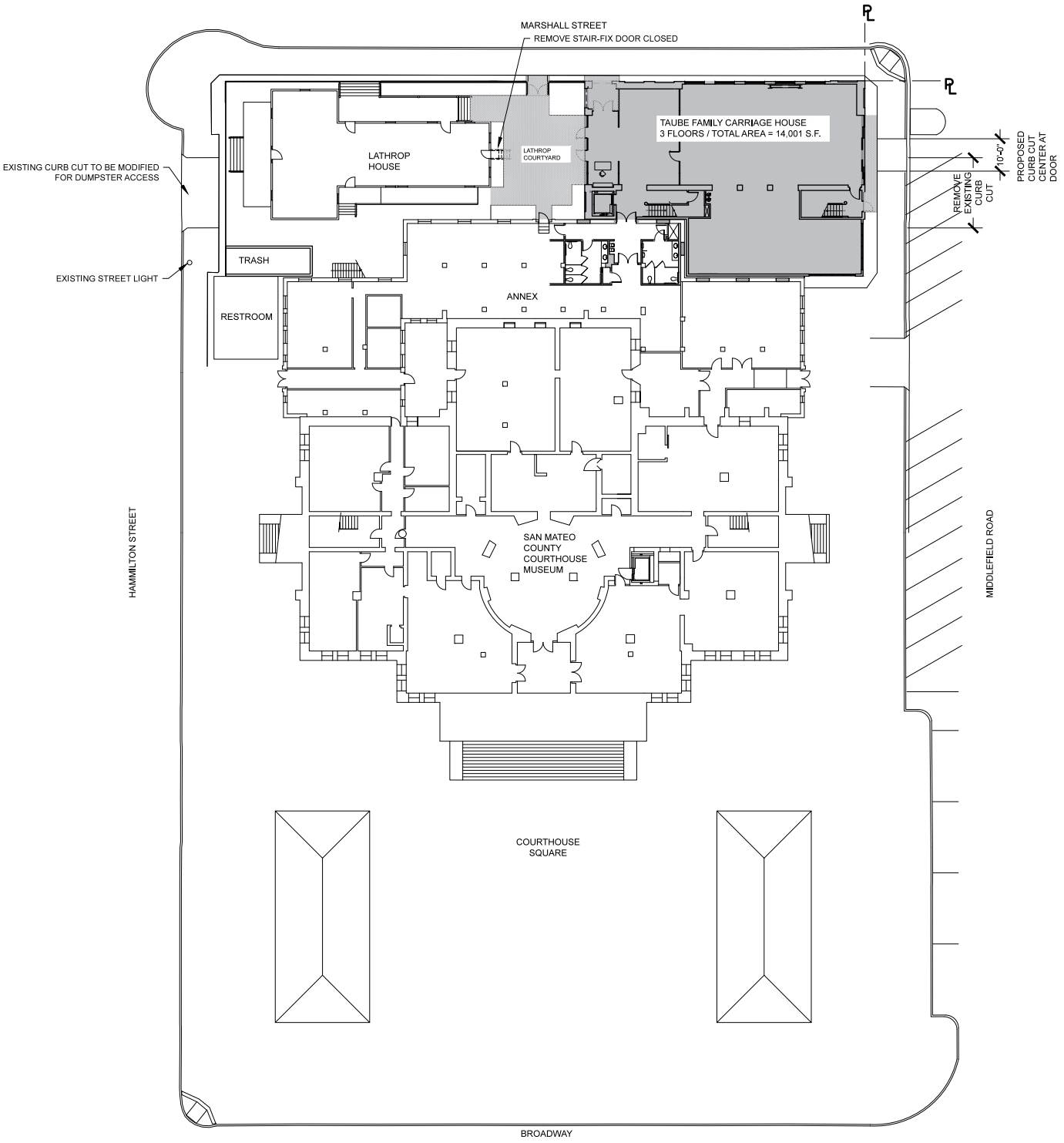

Figure 2
Site Plan - Courthouse Block

NORTH
Not to Scale

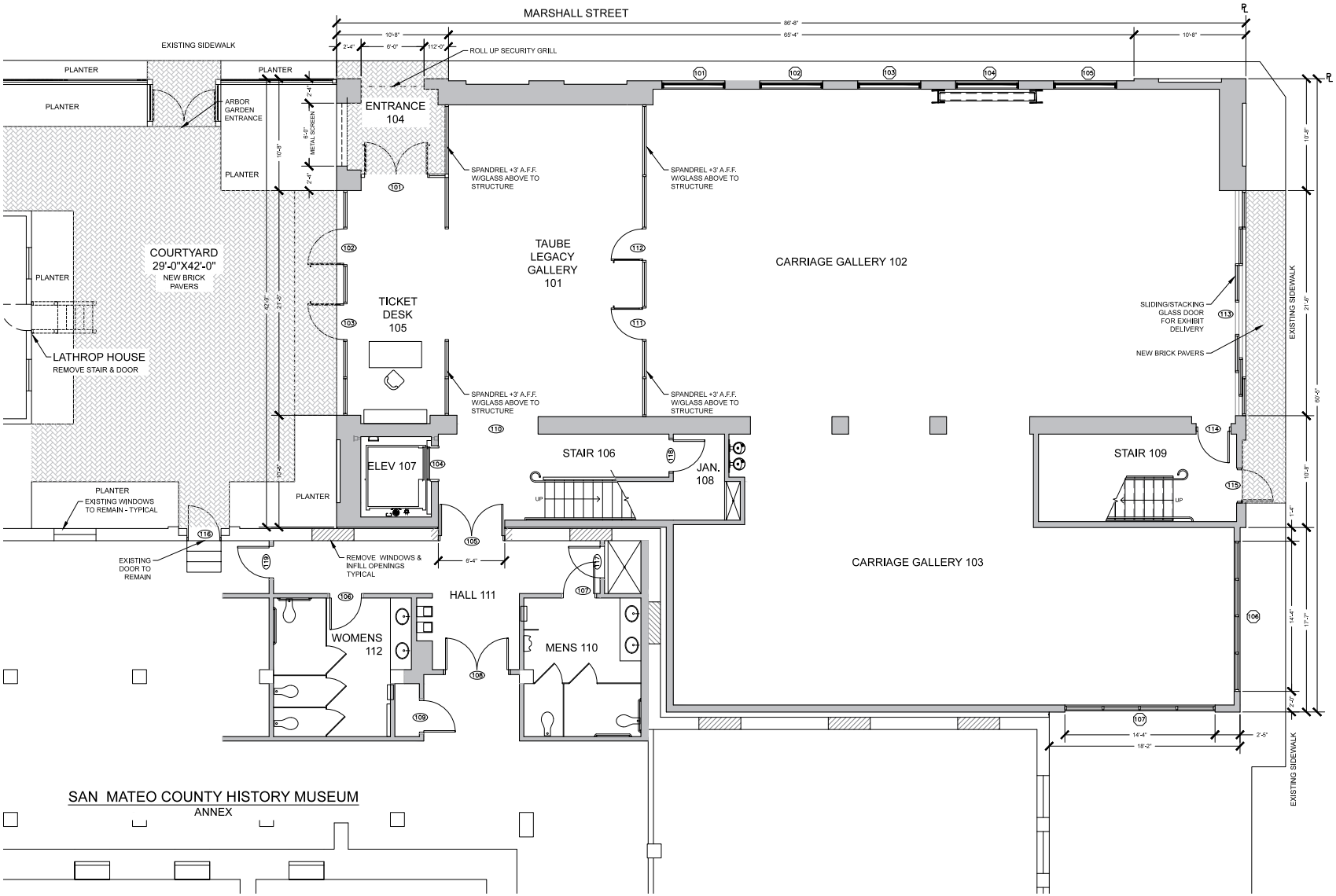

Figure 3
Site Plan - Carriage House Ground Floor

NORTH
Not to Scale

Table 1
Project Trip Generation Estimates

Land Use	Expansion Size		Daily Rate	Daily Trips	7-9 AM Peak Hour Rate	7-9 AM Peak Hour Trips In	7-9 AM Peak Hour Trips Out	7-9 AM Peak Hour Trips Total	4-6 PM Peak Hour Rate	4-6 PM Peak Hour Trips In	4-6 PM Peak Hour Trips Out	4-6 PM Peak Hour Trips Total
San Mateo County History Museum Expansion - Typical Weekday												
Trips Generated by New Employees[1]	5	employees	2.00	10	1.00	5	0	5	1.00	0	5	5
Trips Generated by New Visitors [2,3]	14	ksf	1.12	16	0.00	0	0	0	0.14	0	2	2
Total				**26**		**5**	**0**	**5**		**0**	**7**	**7**
San Mateo County History Museum Expansion - Weekday with Evening Special Event (27 events per year including weekdays and weekends)												
Trips Generated by New Employees[1]	5	employees	2.00	10	1.00	5	0	5	1.00	0	5	5
Trips Generated by New Visitors [2,3]	14	ksf	1.12	16	0.00	0	0	0	0.14	0	2	2
Trips Generated by Carriage House Special Events [4]	150	attendees	0.91	136	0.00	0	0	0	0.45	68	0	68
Total				**162**		**5**	**0**	**5**		**68**	**7**	**75**
San Mateo County History Museum Expansion - Weekday with Daytime Special Event (12 events per year)												
Trips Generated by New Employees[1]	5	employees	2.00	10	1.00	5	0	5	1.00	0	5	5
Trips Generated by New Visitors [2,3]	14	ksf	1.12	16	0.00	0	0	0	0.14	0	2	2
Trips Generated by Carriage House Special Events [4]	125	attendees	0.91	114	0.00	0	0	0	0.00	0	0	0
Total				**140**		**5**	**0**	**5**		**0**	**7**	**7**

Notes:
ksf - 1000 square feet gross leasable area

[1] Per the San Mateo County History Museum website, the museum has a staff of 22 employees. The existing square footage of the museum is 56,540. Therefore, the number of employees per 1,000 square feet (ksf) = 22/56.540 = 0.39. The number of new museum employees was calculated by multiplying this rate by the size of the proposed expansion (0.39 employees/ksf * 14 ksf = 5 employees). To be conservative, all employees are assumed to drive alone to and from work during the AM and PM peak hours.

[2] Daily trip assumptions for visitors to the museum are based on the following:
A) Weekly visitor trip data provided by the San Mateo County History Museum for the year 2019 and January and February months of the year 2020. Dividing the total attendance of 25,100 by 360 days yields an average of 69.7 visitors per day. Dividing the average daily attendance by the existing museum square footage yields a daily visitor rate of 1.23 visitors per ksf (69.7/56.4 = 1.23). Each visitor is assumed to make two trips per day, one inbound and one outbound. Daily vehicle trips by visitors assume an average vehicle occupancy (AVO) of 2.2 persons per vehicle per the AVO for social/recreational trips found in the *2009 National Household Travel Survey* data from the US Department of Transportation. Daily vehicle trip rate by visitors = 1.23 visitors per ksf * 2 daily trips per visitor / 2.2 visitors per vehicle = 1.12 daily visitor vehicle trips per ksf.
B) The Museum is open 6 days a week. Holidays were excluded from the above calculation of average daily visitor attendance.
C) Special event attendance was excluded from the data. Special events generally occur on Friday nights and weekends and do not affect the AM and PM peak commute hours of a typical weekday.

[3] Data from ITE *Trip Generation Manual, 10th Edition*, 2017 Land Use 580 (museum) are based on only one observation and are not statistically reliable. Visitors are not expected to generate any trips during the AM peak commute hour since the museum does not open to the public until 10 AM. The museum closes to the public at 4 PM, thus PM peak commute trips were assumed to constitute 15 percent of the daily trips and be 100 percent outbound trips.

[4] Trip assumptions for special events at the proposed new Carriage House assume each attendee makes two trips per day, one inbound and one outbound. Vehicle trips by event attendees assume an average vehicle occupancy (AVO) of 2.2 persons per vehicle. To be conservative, all evening event attendees are assumed to arrive during the PM peak commute hour. Daytime special events generally occur mid-day and thus do not add any trips during the AM or PM peak commute hours.

Weekly visitor trip data was provided by the San Mateo County History Museum for the entire year of 2019 and the months of January and February in the year 2020. An average daily visitor attendance of 69.7 was calculated by dividing the total museum attendance by the total number of days the museum was in operation. Typically, the museum operates 6 days a week except in case of holidays, which were excluded from the above calculation of average daily visitor attendance. Special event attendance was also excluded from the visitor data since special events generally occur on Friday nights and weekends and do not affect the AM and PM peak commute hours of a typical weekday. Each visitor is assumed to make two trips per day, one inbound and one outbound. Daily vehicle trips by visitors assume an average vehicle occupancy (AVO) of 2.2 persons per vehicle per the AVO for social/recreational trips found in the 2009 National Household Travel Survey data from the US Department of Transportation. Finally, a trip rate of 1.12 daily visitor vehicle trips per 1,000 s.f. was calculated by dividing the average daily attendance (69.7 visitors) by

the existing museum square footage (14,000 s.f.), multiplying by two trips per visitor, and dividing by the AVO (2.2 persons per vehicle). Visitors are not expected to generate any trips during the AM peak commute hour (between 7 and 9 AM) since the museum does not open to the public until 10 AM. The museum closes to the public at 4 PM, thus PM peak commute trips (between 4 and 6 PM) were assumed to constitute 15 percent of the daily trips and be 100 percent outbound trips. Therefore, on a typical weekday (without a special event), including both employee and visitor trips, the San Mateo County History Museum Expansion is expected to generate a total of 26 daily trips, 5 AM peak hour trips (5 inbound and 0 outbound), and 7 PM peak hour trips (0 inbound and 7 outbound).

On a weekday with an evening special event or a daytime special event, in addition to trips generated by the above described new employees and new visitors, trips would also be generated by visitors to the Carriage House special events. The San Mateo County History Museum expects up to 27 special events on weekday evenings and weekends and 12 weekday daytime special events in a year. It is assumed that each attendee to the special events makes two trips per day, one inbound and one outbound. Vehicle trips by event attendees also assume an AVO of 2.2 persons per vehicle. To be conservative, all evening event attendees are assumed to arrive during the PM peak commute hour. Daytime special events generally occur mid-day and thus do not add any trips during the AM or PM peak commute hours. Therefore, on a weekday with an evening special event, the San Mateo County History Museum Expansion is expected to generate a total of 162 daily trips, 5 AM peak hour trips (5 inbound and 0 outbound), and 75 PM peak hour trips (68 inbound and 7 outbound). On a weekday with a daytime special event, the San Mateo County History Museum Expansion is expected to generate a total of 140 daily trips, 5 AM peak hour trips (5 inbound and 0 outbound), and 7 PM peak hour trips (0 inbound and 7 outbound).

Multimodal Access Analysis

The project site plan and surrounding transportation network were reviewed to determine the overall adequacy of site access via public transportation, walking, and biking (see Figure 4).

Existing Transit Services

The project is located 0.1 mile east of the Redwood City Transit Center on James Avenue, which is approximately a two-minute walk and a one-minute bicycle ride. The Redwood City Transit Center is served by Caltrain and by San Mateo County Transit District (SamTrans) bus routes.

Caltrain provides commuter rail service between San Francisco and San Jose, with limited service to Gilroy during commute hours. The Redwood City station is served by local-stop, limited-stop, and baby bullet trains. During the morning peak period, train headways at the Redwood City Station are between 5 and 39 minutes. During the PM peak period, train headways at the station are between 6 and 49 minutes.

SamTrans provides bus service within Redwood City and throughout San Mateo County and has numerous weekday day routes that include a stop at the Redwood City Transit Center. These routes include Route ECR, Route Rapid ECR, Route 95, Route 270, Route 274, Route 275, Route 276, Route 278, Route 295, Route 296, Route 397, and Route 398. Furthermore, Routes 270 and 276 have additional bus stops within 0.2 miles of the project site on Jefferson Avenue at Marshall Street and on Main Street at Marshall Street.

Proposed Transit Services

As a part of the Caltrain Modernization Program, the rail service will be electrified. With the electrification of service, Caltrain will be able to provide faster and more frequent service along the corridor, including at the Redwood City station. In addition, there are several other transit upgrades proposed within walking distance of the San Mateo County History Museum that will improve the connectivity between Downtown Redwood City and the Bay Area region. These include a rail link with the East Bay via the Dumbarton Bridge, and the Bay Area leg of the California High Speed Rail system.

The Dumbarton Transportation Corridor Study (DTCS) preferred alternative includes the creation of doubletrack and bidirectional commuter rail service from the Union City BART station to the Caltrain Sequoia/Redwood City station via the Dumbarton rail bridge with midpoint stations in Fremont, Newark, East Palo Alto, Menlo Park and Atherton. In 2018, following the completion of the DTCS, the San Mateo County Transit District began partnering with Cross Bay Transit Partners (CBTP), a joint venture between Facebook and Plenary Group, to explore the feasibility of potentially providing passenger service and facilitating mixed-use transit-oriented development at key transit connections along the Dumbarton rail corridor. The project is currently in the environmental scoping process and a public draft environmental document is anticipated in summer 2021.

High Speed Rail (HSR) will require grade separation within Redwood City. The railroad currently creates a major barrier in Downtown and pedestrians have very few points at which they may safely cross the tracks. The grade separation of the railroad tracks as a part of HSR will provide the opportunity to create new street connections between the northeast and southwest sides of Downtown. Upon the grade separation of the railroad, Broadway is proposed to be realigned to cross the railroad right-of-way at grade along with other Downtown streets.

The Redwood City Broadway Streetcar/Urban Circulator Study completed in 2019 explores the feasibility of a streetcar/urban circulator project to link the Redwood City Transit Center with the Downtown and the Broadway corridor to enhance overall mobility. In the vicinity of the project site three streetcar alignment options are being considered: Broadway, Marshall Street, or Winslow Street. Furthermore, the Redwood City Transit Center Redesign Study completed in 2019 evaluates the potential for station area improvements to better integrate the Transit Center with the downtown, expand capacity, and reduce bus and pedestrian conflicts.

Overall, the existing and planned transit services within walking distance of the San Mateo County History Museum provide convenient transportation options for both Museum employees and visitors.

Figure 4
Transit, Bicycle, and Pedestrian Access

NORTH
Not to Scale

Bicycle Facilities

The existing bicycle facilities within the study area include bike lanes, and bike routes. Bike lanes provide a striped lane for one-way bike travel on a street or highway and are designed for the exclusive use of cyclists with certain exceptions. Bike routes are streets that are well-suited for bicycling where cyclists share the road with motor vehicles. Bike routes may also be defined by a wide curb lane and/or use of a shared use arrow stencil marking on the pavement, known as a "sharrow." Within the project vicinity, Broadway, west of Main Street and Winslow Street between Broadway and Hamilton are designated as bike routes. There are bike lanes on Winslow Street north of Broadway, Arguello Street north of Marshal Street, Broadway between Middlefield Road and Jefferson Avenue, and on Marshall Street west of Main Street. The Redwood City Downtown Precise Plan, and the Citywide Transportation Plan, known as RWC Moves, identify several new bicycle facilities in the vicinity of the project site including Class IV cycle tracks on El Camino Real, on James Avenue east of Elwood Street, and on Middlefield Road, a bike path along the Caltrain tracks, and Class II bicycle lanes on Jefferson Avenue south of Broadway. A Class IV cycle track, also known as a protected bike lane, provides space that is exclusively for bicyclists and is physically separated from motor vehicle travel lanes, parking lanes, and sidewalks.

Other bicycle facilities in the vicinity of the project site include bike racks on several locations along Broadway, Winslow Street, Middlefield Road, Hamilton Street, and Marshall Street. Along the project frontage, there is bike parking on Hamilton Street and Middlefield Road. Hamilton Street and Middlefield Road are low volume, low speed, two-lane streets with traffic calming measures like diagonal parking, therefore, the bike parking on these streets can be conveniently accessed from the bike lanes on Marshall Street. The project does not propose additional bike parking on the project site.

Overall, the existing and planned bicycle network is extensive in the project vicinity enabling both employees and visitors to bike to and from the San Mateo County History Museum.

Pedestrian Facilities

In the vicinity of the project site, pedestrian volumes are high, the area features short block lengths and is viewed as a pedestrian-friendly environment. The pedestrian facilities within the study area include continuous sidewalks, crosswalks, bulb-outs, pedestrian walk signals, and ADA ramps. The pedestrian entrances to the new carriage house include an entrance from the courthouse square to the west and from Marshall Street to the north. The courthouse square is a pedestrian only grand gateway to the museum with community amenities and colored pavers. The Marshall Street entrance connects to the existing sidewalk on Marshall Street and will be designed with improved ADA accessibility features.

The signalized intersections along Marshall Street, which runs along the northern edge of the project site and provides access to the Redwood City Transit Center, have crosswalks, ADA accessible ramps, and pedestrian push buttons on every leg. The crosswalks are not striped with high visibility markings except at the intersection of Broadway. Bulb-outs are present at the intersection of Hamilton Street and Marshall Street, which is at the northwest corner of the project site. Bulb-outs reduce pedestrian crossing distances and minimize the time pedestrians share space with vehicles. Redwood City has plans to upgrade the intersections of Middlefield Road and Marshall Street (northeast corner of the project site) and Jefferson Avenue and Marshall Street with bulb-outs, drainage improvements, striping, and traffic signal improvements. The project is partially paid for from a development agreement with the project at 601 Marshall Street. The County should implement similar improvements at the intersection of Hamilton Street and Marshall Street (northwest corner of the project site) to improve pedestrian accessibility to and from the History Museum. Per the Downtown Precise Plan, high-visibility "continental" crosswalks, with large white bars perpendicular to the

roadway are recommended. Traffic signal improvements should include leading pedestrian intervals (LPIs), as recommended in RWC Moves. They give pedestrians the opportunity to enter the intersection a few seconds before vehicles are given the green signal.

The intersections along Broadway, which runs along the southern edge of the project site and provides access to the Redwood City Transit Center, have high visibility crosswalks with continental stripes or colored concrete, midblock crossings, ADA accessible ramps, pedestrian push buttons, and bulb-outs on every leg. This stretch of Broadway also has wide sidewalks and landscape buffers between the sidewalk and the road improving overall pedestrian environment.

The south leg of the intersection of Broadway and Middlefield Road is Theatre Way, which is a pedestrian street featuring a single lane of one-way traffic, landscaping, and attractive pavers. The street has a wide sidewalk with custom-designed lighting columns and step curbs. Theater Way connects to Winslow Street, which provides access to the Caltrain Station. Winslow Street also has continuous sidewalks, high visibility crosswalks, and bulb-outs.

The existing pedestrian facilities on Broadway, Winslow Street, and Theatre Way provide a safe and convenient connection between the San Mateo County History Museum and the Redwood City Transit Center. Likewise, the planned pedestrian improvements on Marshal Street at Middlefield Road and at Jefferson Avenue would improve the pedestrian route between the project site and the nearby bus stops northeast of the project site. The recommended pedestrian improvements at Hamilton Street and Marshall Street would further improve pedestrian access to the History Museum and other County Government Center uses.

Conclusions

The San Mateo County History Museum is well connected locally and regionally through the Redwood City Transit Center. There is robust first-mile/last-mile bicycle and pedestrian access between the transit center and the project site. There are also proposed upgrades to the existing transit, bicycle, and pedestrian facilities. The County should construct improvements to the pedestrian facilities at the intersection of Hamilton Street and Marshall Street include high-visibility “continental” crosswalks, with large white bars perpendicular to the roadway and leading pedestrian intervals.

The San Mateo County History Museum expansion is expected to generate less than 30 new daily vehicle trips on a typical weekday and is not anticipated to have an adverse impact the transportation network.