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Section 106 Review and Comment

Hearing Date:	January 20, 2016
Case No.:	**2015-005005FED**
Project Name:	**Pump Station No. 2**
Project Location:	San Francisco, California
Project Sponsor:	San Francisco Public Utilities Commission (SFPUC) 525 Golden Gate Avenue San Francisco, CA 94102 Scott MacPherson (Project Contact)
Staff Contact:	Justin Greving – (415) 575-9169 justin.greving@sfgov.org
Reviewed By:	Tina Tam – (415) 558-6325 tina.tam@sfgov.org

REQUESTED ACTION

The National Park Service (NPS) has asked the Planning Department to participate as a signatory on the Memorandum of Agreement (MOA) for the proposed improvement and seismic upgrade of Pump Station No. 2, pursuant to Section 106 of the National Historic Preservation Act (NHPA).

In support of this request, NPS has provided the following documents:

- Draft Memorandum of Agreement between National Park Service, Advisory Council for Historic Preservation (?), City and County of San Francisco, and The California State Historic Preservation Officer regarding Pump Station No. 2 of the City and County of San Francisco Fire Department's Auxiliary Water Supply System (draft MOA, received January 5, 2016).

- Auxiliary Water Supply System, Pump Station No. 2 Finding of Adverse Effect, prepared for the San Francisco Public Utilities Commission by Garavaglia Architecture, Inc., (FOE, dated October 22, 2015).

The Planning Department requests the Historic Preservation Commission (HPC) to review and comment on the latest version of the draft MOA (received January 5, 2016). A letter documenting the comments on the project may be prepared. If so, the letter should conclude with whether the HPC agrees with the Finding of Adverse Effect upon historic properties within the project's Area of Potential Effect (APE), and if the treatment measures outlined in the MOA are sufficient mitigation measures. The Director of the Planning Department will then forward the letter containing comments of the HPC to the NPS (lead agency) with copies to the State Historic Preservation Officer (SHPO) and the Project Sponsor and any other interested parties. The Planning Department also seeks a recommendation from the HPC on whether the Planning Director should engage as a signatory on this agreement.

PROPERTY DESCRIPTION

Pump Station No. 2 is located at the northernmost end of Van Ness Avenue, in the northeast corner of the former Fort Mason Military Reservation, now known as the Fort Mason Historic District (within the Golden Gate National Recreation Area). The building was completed in 1913 and is a component of the Auxiliary Water Supply System (AWSS) which pumps water from the San Francisco Bay for use as a supplemental fire suppression system. Pump Station No. 2 is a simple rectangular building of reinforced concrete designed in the Mission Revival style. The two primary (north and east) elevations feature bays of double height segmented fixed pane windows beneath a Spanish-style roof projection clad in red clay tile and supported by paired metal brackets. Just south of Pump Station No. 2 are two 50,000-gallon water tanks that were used to run the boilers, while to the northwest is a detached two-bay garage.

Although Pump Station No. 2 is wholly owned and operated by the City and County of San Francisco (CCSF), it is located on federal land in the Fort Mason Historic District.

Pump Station No. 2 is individually listed in the National Register of Historic Places as of 1975. Pump Station No. 2 and its associated structures have also been identified as contributors to the National Register-eligible AWSS Discontiguous Historic District. Additionally, Pump Station No. 2 is a contributor to the National Register-listed Fort Mason Historic District. In 2004 a Cultural Landscape Report identified the adjacent garage and water tanks as contributing features to the East Waterfront Landscape Character Area within the Fort Mason Historic District.

PROJECT DESCRIPTION / UNDERTAKING

The proposed undertaking would include a seismic upgrade to Pump Station No. 2. The building's foundation, walls, and roof require substantial seismic retrofitting. Some of the equipment inside the building along the perimeter walls would need to be removed in order to perform this work. The rear portion of the steam boilers, which were abandoned in place when the pumps were converted to diesel fuel, would be removed; allowing the space to be used for a new conference room compliant with the Americans with Disabilities Act (ADA), as well as access to the west wall for structural reinforcement. The steam boiler facades would be structurally braced and remain in the existing location. The narrow band of glazed tiles within the boiler corner columns at each end of the façade would be preserved. The electrical panel would be anchored and remain approximately in its current location. The base of the pumps will be braced. On the exterior, 10 small rectangular windows at the corners of the building will be repositioned seven inches closer to the outside face of the building and will be backed by a non-transparent sheer wall. If the existing windows or frames are found to be deteriorated or corroded to the point where they cannot be relocated, repairs would be attempted if feasible. If the windows or frames cannot be feasibly repaired, then new windows or frames would be fabricated and painted to match the existing windows. A more detailed description of the proposed undertaking is outlined on page five of the FOE.

ENVIRONMENTAL REVIEW STATUS

A Mitigated Negative Declaration was adopted on September 10, 2009 (FMND) for the seismic retrofit of the entire AWSS. A Minor Project Modification to the scope of work for Pump Station No. 2 was issued

on January 21, 2015. This modification determined there were no new impacts beyond those identified in the FMND.

It should be noted that the treatment measures in the Draft MOA are similar to the cultural resources mitigations set forth in the FMND.

STAFF ANAYLSIS

Area of Potential Effect
The Area of Potential Effect for Pump Station No. 2 includes the entire Fort Mason Historic District.

Determination of Eligibility
Pump Station No. 2 is individually listed in the National Register of Historic Places as of 1975. Pump Station No. 2 and its associated structures have also been identified as contributors to the National Register-eligible AWSS Discontiguous Historic District. Additionally, Pump Station No. 2 is a contributor to the National Register-listed Fort Mason Historic District. In 2004 a Cultural Landscape Report identified the adjacent garage and water tanks as contributing features to the East Waterfront Landscape Character Area within the Fort Mason Historic District.

Determination of Adverse Effects
The proposed undertaking would result in an adverse effect on Pump Station No. 2. Overall the activities that could cause an adverse effect relate to the building structure, conference room and office, windows, and garage. The interior walls and columns will be reinforced and thickness of walls and columns will be visually altered. The facades of the steam boilers will be retained and preserved in place but the rear of the boilers will be removed for the installation of a new conference room and office. Ten small rectangular windows will be repositioned approximately seven inches closer to the outside wall. The garage will be either repaired or reconstructed. A more substantial description of the adverse effects is described in more detail on page 9 of the FOE.

Memorandum of Agreement
To address the adverse effect on Pump Station No. 2, the NPS, possibly the Advisory Council for Historic Preservation, and CCSF would execute and implement a Memorandum of Agreement (MOA) with SHPO that would require mitigation of the adverse effects of the undertaking. These mitigation measures are designed to address the adverse effects on the historic architectural resources and include the following:

1. The Pump House and associated structures will be the subject of recordation by photography and drawings following the standards of the Historic American Building Survey / Historic American Engineering Record / Historic American Landscape Survey (HABS/HAER/HALS).

2. A number of historic features within the building will be preserved in place or relocated within the building. Additionally, signs will be installed on the exterior surrounding landscape of the Pump Station No. 2 that explain the history and function of AWSS.

3. During the project, interior historic character-defining features, such as the original pumps, valve gate controls, the narrow band of glazed tile between the boiler metal front and steel columns, will be protected to avoid damage.

Conclusion
Department Staff concurs with the following elements of the Section 106 Review and Draft MOA:

- Project Description/Undertaking: Staff concurs with definition of the Project Description and Undertaking provided in the FOE.
- Area of Potential Effects: Staff concurs with the definition of the APE.
- Determination of Adverse Effects: Staff concurs with the finding that the project will have an adverse effect on the historic property.
- Programmatic Agreement: Staff concurs with the execution of the MOA, including the identified mitigation measures that would reduce the severity of the adverse effect of this undertaking, is appropriate. Staff agrees with the comments relayed by SHPO in their December 10, 2015 letter that every effort should be made to retain and repair, rather than replace, the existing 10 rectangular windows. Staff would encourage the architectural drawings be updated to reflect the language of the FOE with regard to retaining and repairing the existing windows.

ATTACHMENTS

Attachment A: Draft Memorandum of Agreement between National Park Service, Advisory Council for Historic Preservation (?), City and County of San Francisco, and The California State Historic Preservation Officer regarding Pump Station No. 2 and Associated Structures of the City and County of San Francisco Fire Department's Auxiliary Water Supply System (draft MOA, received January 5, 2015)

Attachment B: Auxiliary Water Supply System, Pump Station No. 2 Finding of Adverse Effect, prepared for the San Francisco Public Utilities Commission by Garavaglia Architecture, Inc., (FOE, dated October 22, 2015)

Attachment C: Map showing the Area of Potential Effect (provided by NPS)

Attachment D: Correspondence from NPS to the State Historic Preservation Officer (SHPO) dated August 12, 2015 seeking review and comment regarding undertaking

Attachment E: Correspondence from SHPO to NPS dated December 10, 2015, concurring with language of draft MOA

Attachment F: Minor Project Modification No. 3 for Pump Station No. 2, dated January 21, 2015

Attachment G: Undated architectural and structural drawings prepared by the Public Utilities Commission, "Auxiliary Water Supply Pumping Station No. 2 Improvements", (19 sheets total, compiled and abridged from full set)

RS: G:\Documents\Section 106 Review\Pump Station No 2\HPC Section 106 Memo_Pump Station No 2.docx

Attachment A:

Draft Memorandum of Agreement between National Park Service, Advisory Council for Historic Preservation (?), City and County of San Francisco, and The California State Historic Preservation Officer regarding Pump Station No. 2 and Associated Structures of the City and County of San Francisco Fire Department's Auxiliary Water Supply System (draft MOA, received January 5, 2015)

Memorandum of Agreement among the
National Park Service,
Advisory Council for Historic Preservation(?),
City and County of San Francisco, and
The California State Historic Preservation Officer regarding
Pump Station No. 2 and Associated Structures of the City and County of San Francisco Fire Department's Auxiliary Water Supply System (AWSS)

WHEREAS, the City and County of San Francisco (CCSF) is undertaking a project to seismically retrofit Pump Station No. 2 and associated structures, of the City and County of San Francisco Fire Department's (CCSF) Auxiliary Water Supply System (AWSS); a property listed on the National Register of Historic Places in 1975; and

WHEREAS, the entire AWSS, including Pump Station No. 2, was determined eligible for listing as a Discontiguous Historic District in September 2009 for the CCSF Department of Public Works; and

WHEREAS, Pump Station No. 2 and associated structures contribute to the significance of the Fort Mason Historic District, a property listed in the National Register of Historic Places, within National Park Service (NPS) Golden Gate National Recreation Area (GOGA); and

WHEREAS, Pump Station No. 2 and associated structures are located on land belonging to NPS GOGA; and

WHEREAS, San Francisco Maritime National Historical Park (SAFR) will grant a permit to the CCSF for permission to use NPS land during seismic retrofit construction of Pump Station No. 2, and associated structures; and

WHEREAS, the Pump Station's foundation, walls, and roof require substantial seismic retrofitting; and

WHEREAS, some of the equipment inside the building along the perimeter walls will be removed in order to perform this work; and

WHEREAS, the rectangular windows at the corners of the building will be repositioned seven inches closer to the outside face of the building and will be backed by a non-transparent sheer wall; and

WHEREAS, GOGA, and SAFR reviewed the Historic Resources Evaluation, construction plans, and documents for this project; and

WHEREAS, the Area of Potential Effect (APE) for this project has been determined to be the Fort Mason Historic District; and

WHEREAS, the potential environmental impacts of this project were evaluated and mitigated to less-than-significant levels, as appropriate, in a Mitigated Negative Declaration

dated October 28, 2009, in an associated Addendum to the Mitigated Negative Declaration dated May 7, 2013, and in a Minor Project Modification dated January 21, 2015; and

WHEREAS the NPS has determined that the undertaking will have an adverse effect on the Pump Station No. 2, a Property listed in the National Register of Historic Places individually, as part of the Fort Mason Historic District, and eligible for listing as part of the AWSS Discontiguous Historic District under the National Historic Preservation Act (NHPA) of 1966 (as amended); and

WHEREAS, the NPS has consulted with the California State Historic Preservation Officer (SHPO) pursuant to 36 CFR § 800, the regulations implementing Section 106 of the NHPA (16 USC Section 470F) as amended, regarding the Undertaking's effects on historic properties and has notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect finding pursuant to 36 CFR §800.6(a)(1); and

WHEREAS, the ACHP has agreed/declined to participate in the consultation to resolve adverse effects; and

WHEREAS, the SHPO concurred with the APE and the proposed finding of adverse effect; and

WHEREAS, the NPS and CCSF have determined that they will resolve adverse effects of the Undertaking on the subject historic property through the execution and implementation of this MOA; and

WHEREAS, the CCSF Historic Preservation Commission has reviewed and commented on this MOA; and

WHEREAS, the NPS-SAFR, NPS-GOGA, CCSF Planning Department, CCSF PUC, and the SHPO are signatories of this MOA; and

NOW THEREFORE, the NPS, CCSF, and the SHPO agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on National Register-listed and National Register-eligible properties in compliance with the NHPA, and further agree that these stipulations will govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

I. Definitions

For purposes of this Agreement, the definitions provided at 36 CFR § 800. 16 (a) through (y) inclusive shall apply.

II. Mitigation of Adverse Effects and Treatment of Historic Properties

A. HABS/HAER/HALS Recordation

1. The NPS and CCSF shall ensure that the Pump House and associated structures shall be the subject of recordation by photography and drawing following the standards of the Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey (HABS/HAER/HALS) prior to the start of the Undertaking.

2. The appropriate level of documentation shall specifically follow HABS/HAER/HALS criteria at the level specified by the NPS Regional HABS/HAER/HALS coordinator. Documentation shall be completed by a qualified professional who meets the standards for History, Architectural History, or Architecture (as appropriate) set forth by the Secretary of the Interior's Professional Qualification Standards, (36 CFR, Part 61).

3. The draft documentation will be submitted for review and approval by the NPS. The final documentation will be distributed to the Library of Congress, California SHPO, San Francisco Library History Room, the CCSF Headquarters, and to the SAFR and GOGA archives.

B. Treatment Measures: Preservation, Preservation in the Building, Interpretation, Display

1. *Preserve in place*: The rear portion of the steam boilers, which were abandoned in place when the pumps were converted to diesel fuel, will be removed, allowing the space to be used for new, ADA-accessible office and conference areas and allowing access to the west wall for structural reinforcing. The steam boiler façades and their piping will be structurally reinforced and preserved in place. Heater equipment (located on skids over the partial basement) will be preserved approximately in place.

2. *Preservation within the building*: The following equipment will be relocated to behind the façade of Boilers 5&6: equipment in the basement (circuit pump, condenser and air pump), and a boiler feed pump currently located southeast of Boilers 5&6. The original steam turbine, electrical generator, and disassembled pump impellor that were relocated as part of the mitigation for the 1975 undertaking and the electrical panel will similarly be preserved although at a new location approximately 5 feet further north of their current position.

3. *Interpretation*: The entire AWSS has little exposure to the public, so many are unaware of the system's existence or location. In order to better inform the public about the AWSS and the slight changes that it has undergone over the years, the CCSF will post signs on the exterior surrounding landscape of Pump Station No. 2 to explain the system and its function. The signs will not be placed directly on the building and will conform to SAFR wayside sign

standards. A City of San Francisco web site would have a link to the history and photo documentation of the AWSS and its changes in equipment over time.

C. Protection of Historic Character-Defining Features

During the project, the CCSF will protect interior historic character-defining features, such as original pumps, valve gate controls, the narrow band of glazed tile between the boiler metal front and steel columns, and other original machinery and associated piping.

To reduce the potential for inadvertent damage to character-defining features of the AWSS during construction, the CCSF will implement the following protection measures beforehand:

1. During the development and implementation of construction plans and development of procedures, consult with the San Francisco Planning Department about avoiding damage to interior and exterior historic character-defining features near the construction zone;

2. Establish protection procedures for interior historic character-defining features, such as protecting interior features against damage during project work by covering them with heavy canvas or plastic sheets; and

3. Provide a project orientation for all construction workers to increase their understanding and sensitivity to the challenges of the special environment in which they will be working.

III. Discovery Provision

A. In the event that a previously unidentified archeological resource is discovered during ground disturbing activities, all construction work involving subsurface disturbance will be halted in the area of the resource and in the surrounding area where further subsurface remains can be reasonably expected to occur. An archeologist meeting the Secretary of the Interior's Professional Qualification Standards (36 CFR 61) will immediately inspect the work site and determine the area and nature of the affected archeological feature, and SAFR shall be notified. Construction work may then continue in the project area outside the defined area of the resource.

B. Within 48 hours of the discovery, the NPS shall notify the CA SHPO and such notification shall assess the eligibility of the feature for listing on the National Register of Historic Places and proposed actions to resolve potential adverse effects. The CA SHPO shall respond within 48 hours of the notification and the NPS shall take into account the CA SHPO's recommendation regarding National Register eligibility and proposed actions, and CCSF, through NPS shall then carry out appropriate actions.

C. The NPS shall provide the CA SHPO a report of the actions when they are completed.

IV. Administrative Provisions

A. Professional Qualifications and Standards

1. All activities prescribed by Stipulations, Section II, of this MOA will be carried out by or under the direct supervision of persons meeting the "Secretary of the Interior's Professional Qualification Standards." *(Federal Register,* 1983).

2. All written and graphic materials prescribed by Stipulations II.A through II.G of this MOA will meet current professional standards and will be developed in accordance with the *Secretary of the Interior's Standards for Historic Preservation*.
3. A qualified historian/architectural historian who meets the Secretary of the Interior's Professional Qualification Standards will consult in order to verify and document consistency of drawings with Standards and to report to SF Planning Department Preservation Staff/California Office of Historic Preservation if design revisions are required.

B. Amendment

If any signatory to this MOA proposes an amendment to its terms, that party shall consult with the other party to consider such amendment. The amendment will be effective on the last date that a copy of it is signed by all the signatories in counterpoint. If the signatories cannot agree to appropriate terms to amend this

MOA, any signatory may terminate the MOA in accordance with stipulation IV.D, below.

C. Dispute Resolution

Should any signatory (NPS, CCSF, SHPO) to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, NPS will consult with such party to resolve the objection. If NPS determines that such objection cannot be resolved within 15 calendar days, NPS will:

1. Forward all documentation relevant to the dispute, including NPS's proposed resolution, to the ACHP. The NPS will also provide a copy to the SHPO. The ACHP shall provide NPS with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation.

2. Prior to reaching a final decision on the dispute, NPS will prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and and provide them and the SHPO with a copy of this written response. NPS will then proceed according to its final decision.

3. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, NPS may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, NPS shall prepare a written response that takes into account any timely comments regarding the dispute to this MOA, and provide the SHPO and the ACHP with a copy of such written response.

4. NPS's responsibilities to carry out all other actions subject to the terms of this MOA that are not subject of the dispute remain in effect. NPS may proceed with Undertaking activities that are unrelated to the dispute.

D. Termination

1. If any signatory believes that the terms of this MOA are not being carried out or cannot be carried out, they may request that work stop while the terms of the MOA are amended per Stipulation IV.C above. If within thirty (30) days, or another time period agreed to by all the signatories, an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

2. If this MOA is terminated for any reason, and the NPS determines that the Undertaking will proceed, NPS will either execute a new MOA with the signatories pursuant to der 36 CFR § 800.6(c) (1), or, will request, take into account, and respond to, the comments of the ACHP pursuant to the comments of the ACHP pursuant to 36 CFR § 800.7. NPS shall notify the signatories as to the course of action it will pursue.

E. Duration

1. If not amended as per Section IV.B, or terminated as per Section IV.D, this MOA will be in effect for five (5) years through CCSF and NPS's implementation of the Undertaking and will terminate and have no further force or effect when NPS, in consultation with the other signatories, determines that the terms of this MOA have been fulfilled in a satisfactory manner. NPS- will provide the other signatories with written notice of its determination and of termination of this MOA.

2. If NPS determines that the Undertaking has not been initiated or completed within five years following execution of this MOA, the signatories will consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment, or termination.

F. Effective Date

NPS will ensure that each party is provided with a copy of the fully executed MOA. A copy of the signed MOA along with supporting documentation will also be provided to the ACHP. This MOA will take effect on the date that the SHPO has signed the MOA.

Execution and implementation of this MOA by the signatory parties, and implementation of its terms, shall evidence that NPS has afforded the ACHP a reasonable opportunity to comment on the Undertaking and the effect of the Undertaking on historic properties, and that the NPS has taken into account the effects of the Undertaking on historic Properties.

Signatory Parties

NATIONAL PARK SERVICE

By: _____Date:_____
Kevin Hendricks, Superintendent, San Francisco Maritime National Historical Park

By: _____Date:_____
Christine Lehnertz, General Superintendent, Golden Gate National Recreation Area

CITY AND COUNTY OF SAN FRANCISCO, DEPARTMENT OF PLANNING

By:_____Date:_____
John Rahaim, Planning Director

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

By:_____Date:_____
Harlan Kelly, General Manager

CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

By:_____Date:_____
Julianne Polanco, State Historic Preservation Officer

Attachment B:

Auxiliary Water Supply System, Pump Station No. 2 Finding of Adverse Effect, prepared for the San Francisco Public Utilities Commission by Garavaglia Architecture, Inc., (FOE, dated October 22, 2015)

Auxiliary Water Supply System, Pump Station No. 2

Finding of Adverse Effect

Prepared for
San Francisco Public Utilities Commission
San Francisco, California

Prepared by
Garavaglia Architecture, Inc.
October 22, 2015

Innovating Tradition

INTRODUCTION

Project Overview and Purpose of Report

Garavaglia Architecture was contracted by the San Francisco Public Works Commission (SFPUC) to prepare a Finding of Effect (FOE) for Pump Station No.2 of the Auxiliary Water Supply System. The purpose of this FOE to analyze the potential adverse effect of the Undertaking to Pump Station No. 2 under the Criteria of Adverse Effect (36 CFR, Part 800.5 [a] [1-3]) for compliance with Section 106 of the National Historic Preservation Act. The conclusion of this analysis is that the undertaking will have an adverse effect under CFR, Part 800.5(a)(1), because it will alter the interior historic character of the property, including some of the physical features that contribute to its historic significance, namely character-defining machinery and equipment. In addition, the City and County of San Francisco (CCSF) will need to obtain a permit from the San Francisco Maritime National Historic Park (SAFR) for construction on National Park Service (NPS) land, and because the staging area for this project will be on parkland outside of the Pump Station No. 2 easement area.

Description of the Historic Resource[1]

Pump Station No. 2, constructed in 1912, is located at the northernmost end of Van Ness Avenue, in the northeast corner of the Fort Mason Historic District.

The main building (see Existing Conditions Photos, Exhibit B) is a Mission Revival-style structure, built of steel and reinforced concrete topped with stucco. The entire building is covered with a built-up ridged roof. A leaded-glass skylight, which extends the full length of the building, provides much of the natural light to the building. Mission Revival-style roof projections are located along the east and north elevations. These roof projections are clad in Spanish tile, with copper soffits and fascia. Four large arched windows on the east elevation match a series of three similar windows on the north elevation.

The primary entrance to the building is along the north elevation. This elevation features opaque windows near each corner, at a slightly higher level than the narrow windows on the east elevation. The south and west elevations of the building are utilitarian, with little ornamentation. A horizontal band of heavy molding at sill height defines the base of the building.

Pump Station No. 2 was constructed to pump seawater from the bay to the AWSS through a concrete intake tunnel approximately 160 feet long and 5 feet in diameter. The intake tunnel is

[1] The description of Pump Station No. 2 has been adapted from the 1976 National Register of Historic Places nomination.

beneath the pump station floor and below the level of low tide to facilitate direct water flow from the bay to the pump station. When originally constructed, Pump Station No. 2 contained four-stage turbine pumps, operated by steam boilers. These boilers were gas-fired, but also contained a reserve fuel oil supply in case seawater needed to be pumped into the system. On the exterior of the pump station, two above-ground, concrete, 50,000-gallon water storage tanks sit on the southeast side of the site. These water tanks were used to run the boilers for emergencies and for pump testing to flush the system. A retaining wall approximately ten feet high is located below these two tanks, to the rear of the pump station.

The interior of the pump station is filled with the station's machinery, described above. Along the middle of the south wall are two Cochrane Feedwater Heaters built by the Harrison Safety Boiler Works of Philadelphia, Pennsylvania. Along the wall to the west of the heaters are three boiler water feed pumps; to the north of these boilers are two similar fuel oil pumps with air tanks and fuel oil heaters, all manufactured by the George E. Dow Pumping Engine Co. of San Francisco.

In the mid-1970s, the interior of Pump Station No. 2 was modified. The steam turbines were removed from the four main pumps and replaced with diesel engines of equal power. The steam-turbine generator sets were removed and replaced with diesel generator sets, which included new electric power and a control center. All engine-driven machinery was enclosed in acoustic cubicles for noise control.

A detached garage is located northwest of the pump station. This building rests on a board-formed, concrete foundation, topped with a shed roof constructed of corrugated metal. The walls of the garage are also clad in corrugated metal. Access to the two garage bays is via a set of wood double doors. The exact construction date of the garage is unknown, but historic maps indicate it was built during the 1920s, after Pump Station No. 2 was in operation.

History of the AWSS and Pump Station No.2

The 1906 Earthquake and the Auxiliary Water Supply System

After the 1906 earthquake and subsequent fires, which resulted in the loss of 80 percent of the entire property value of the city of San Francisco, city leaders looked to prevent such a disaster from reoccurring.[2] The scale of the destruction was in part due to the fact that the municipal water system, which had been determined to be inadequate in the years before the temblor, had failed.[3] Water mains and pipes throughout the city broke, and many of the cisterns and

[2] Steve Van Dyke, Superintendent, Bureau of Engineering and Water Supply, San Francisco Dire Department Water Supply System, San Francisco Fire Department. Accessed at http://www.sfmuseum.net/quake/awss2.html. Since 1849, the city had burned six times, in part due to the large number of wooden buildings and the inadequacy of the municipal water system.

3 Tobriner, Stephen. 2006. Bracing for disaster: earthquake-resistant architecture and engineering in San Francisco, 1838-1933. Berkeley, CA: Bancroft Library, University of California, 206.

reservoirs cracked. As a result, water pressure dropped and a system that was stretched to its limit under normal circumstances could not provide enough water to extinguish the fires that broke out.

Rebuilding the devastated city, however, proved difficult. Insurance underwriters were reluctant to insure a city so prone to catastrophic damage; as a result, property rates skyrocketed to the point where some residents and business owners could not obtain coverage. Affordable insurance was available for those who rebuilt with fire-resistant elements. For the city of San Francisco, improvement of its firefighting and water systems was necessary before municipal rates were reduced.[4]

Months after the earthquake, a study of the system led by Assistant City Engineer H.D.H. Connick and Consulting Engineer T. W. Ransom resulted in not only an improved municipal water supply system, but also an auxiliary system for firefighting. Specifically for the San Francisco Fire Department, this system would be separate from the municipal supply. When the domestic supply was low, a high-pressure system would pump water from the San Francisco Bay into the auxiliary supply.[5] The design of the proposed system would be built in such a way that it would be resilient to earthquakes and fires.

In 1908, San Franciscans voted on a bond issue to finance construction of what would be known as the Auxiliary Water Supply System, or AWSS. The initial area covered by the AWSS was limited to downtown, where the most devastation had occurred in 1906. As financing became available, the system was expanded to the remainder of the city. By 1935, property insurance premiums had decreased by 50 percent in some cases, depending on the building's location from a high-pressure auxiliary line.

Pump Station No. 2
Pump Station No. 2 was designed in 1912 in collaboration with City Engineer Marsden Manson and the firm of Caldwell & Company; the station went into service the following year. The location--along San Francisco Bay, at the northeast corner of the Fort Mason Military Extension--was selected because of its solid bedrock foundation, which would be more stable in an earthquake. As Fort Mason lacked electrical service, Pump Station No. 2 was designed as both a steam-powered pumping plant and a steam-powered electrical generating plant. This dual purpose continued until 1943, when the increased need for electricity during World War II led to the introduction of commercial power to Fort Mason. Various moderations and alterations have taken place at Pump Station No. 2. In the late 1960s, the system was modernized; in the 1970s, the original boiler and turbine power sources were upgraded with diesel engines.

Historic Property Status

[4] Ibid, 196.
[5] Cleary, A. J. "Auxiliary Water Supply for the Fire Protection of San Francisco," *Engineering Record*, Vol. 68, No. 4 (July 26, 1913), 107-109.

Pump Station No. 2, including the two concrete water tans and the associated detached garage, are considered historic properties. The building has been listed on the National Register of Historic Places (NRHP) since 1975, and is considered a historic resource by the San Francisco Planning Department. The Pump Station, water tanks, and garage are also part of the Fort Mason Historic District.

In 1975, as part of the work necessary to perform a building upgrade, the California Office of Historic Preservation (OHP) participated in a Section 106 consultation that culminated in the signing of a Memorandum of Agreement (MOA) with the NPS concerning the treatment of Pump Station No. 2. The interior of Pump Station No. 2 was then modified, and the steam boilers and turbines were replaced with diesel engines. The mitigation for converting the pumps from steam to diesel in the 1975 MOA required that "all of the electrical switchboard, boilers, and the steam-drives auxiliary machinery that did not interfere with the network were to be preserved in place." All obsolete piping related to the steam power function was removed, and the terminal connections were disposed of. One pump turbine was set aside for preservation.

In 2004, SHPO conferred historic status on the garage (LCS#058034) and water tanks (LCS #058036) in a concurrent Fort Mason Cultural Landscape Report.

Historic features that will be adversely affected

- Boilers
- Roofing System
- Windows
- Piping (with the exception of sections to be salvaged)
- Garage

Historic features that will not be adversely affected

- Glazed tiles at corner columns
- Electrical panel
- Feed Pump
- Heater
- Condenser
- Crane
- Pumps

DESCRIPTION OF PROPOSED UNDERTAKING

Overview

The primary intent of this undertaking is to address seismic deficiencies. The building's foundation, walls, and roof require substantial seismic retrofitting. Some of the equipment inside the building along the perimeter walls would need to be removed in order to perform this work. Additionally, some excavation will be required. The rear portion of the steam boilers—which were abandoned in place when the pumps were converted to diesel fuel—would be removed, allowing the space to be used for a new conference room compliant with the Americans with Disabilities Act (ADA), as well as providing access to the west wall for structural reinforcement. The steam boiler facades would be structurally braced and remain in the existing location. The narrow band of glazed tiles within the boiler corner columns at each end of the facade would be preserved. The original electrical panel would be anchored and remain approximately in its current location. The base of the pumps would be seismically anchored. The specifics of this project include:

- Laterally strengthen the building's structure with pile-supported reinforced concrete walls at the corners. Strengthen the perimeter walls for out-of-plane forces with structural steel on the inside face of the wall, and brace the roof parapets with new framing. Supplement or replace the steel roof trusses, north cornice roof framing, horizontal truss bracing, and cross frames with additional steel bracing. Remove the existing wall belts for the seismic work. Replace various gusset plates and steel rivets with high-strength modern versions.
    - If new diesel engines are installed as a result of future air quality regulations, modify the west elevation with interior steel frames around intake and exhaust openings. Create modified openings to be six to eight inches in diameter to facilitate insertion of exhaust vents.
- Demolish the side walls of the boilers. This is necessary due to the presence of hazardous materials (including asbestos) within and behind the glazed tiles.
- Seismically brace and retain piping attached to the existing boiler facades, heaters, and one of the feedwater pumps in their current locations. Demolish interconnecting piping at the boilers and feed pumps. Demolish the steam exhaust piping along the north elevation and retain exhaust pipes along the south.
- Fill in trench plates covered by steel plates to allow seismic strengthening of the boiler facades. As the trench plates are in poor condition, many cannot be removed without destroying them. In these cases, replace trench plates with new plates to substantially match the existing.
- Connect a chemical firefighting system to the diesel engine enclosures and standby power generator room. Install a second fire-suppression system to serve the new conference room and existing office.
- Demolish the office and attendant quarters in the existing mezzanine. Build a new fully ADA-compliant conference room behind the existing boiler facades (#1 and #2) in the western portion of the building. Construct a new office in the current office area.

- Demolish the existing generator room and replace with a larger room in the same location. Remove the existing 1970s-era generator and replace with a modern generator.
- Remove the equipment behind the original electrical panel to install seismic bracing and then relocate the panel to the north of its current location. During construction, salvage any historically significant equipment behind or above the panel to then display behind the boiler facades. If necessary, display some of the equipment (such as the three large rheostats on top of the panel) in front of the electrical panel. Relocate a synchronizer indicator from the north of the panel to the adjacent new office wall. A monitor would be present during this equipment removal to determine what can be salvaged and to provide direction on minimizing damage.
- Remove the concrete-filled roof deck and replace with a cellular steel deck. Replace horizontal truss tension rods with structural steel diagonals and supplement with boundary members along the building perimeter. Replace unreinforced concrete curbs and end walls under the skylight with steel-framed structural walls.
    - Completely replace skylights (to meet current Building Code requirements, and also because the skylights are integrated within the existing roof) and install new skylights approximately ten inches higher to meet fall protection requirements.
    - Relocate existing ladder from the northeast corner of the roof to the northwest, and include a new roof hatch. Create roof penetrations for the heating/ventilation/air conditioning (HVAC) system and condenser, as well as vents for the conference room stove and bathroom.
    - Install diesel particulate filters on roof if determined necessary as the result of an air quality analysis by the Regional Water Quality Control Board (RWQCB).
- Backfill the basement and cover with a concrete slab, in order to strengthen the foundation and avoid a structural void. Relocate the existing (and unused) equipment in the basement behind the boiler facades in a similar alignment.
- Remove kitchen installed in the 1970s (in front of Boilers 1 and 2).
- Relocate the ten small rectangular recessed windows and frames on the north and east walls of the building (but not the large, arched multi-pane bay windows) approximately seven inches closer to the outside face of the wall, to allow for a new interior shear wall. The relocated windows would be recessed one inch. These windows would be inoperable, as solid walls would be constructed behind them. Paint the portion of the shear wall behind these windows a dark color to minimize any potential for reflection. Remove, salvage, and reinstall the existing interior window trim on the new structural interior shear wall.
    - The existing windows and frames are metal, while the interior window trim is wood with metal cladding (a style known as “kalamein”). If the existing windows or frames are found to be deteriorated or corroded to the point where they cannot be relocated, repairs would be attempted, if feasible. If the windows or frames cannot feasibly be repaired, then new windows or frames would be fabricated and painted to match the existing windows. Any new replacement windows would match the profiles of the existing windows to the fullest extent possible. Replacement windows would be wood with aluminum cladding and be

painted to match the existing windows.
    - While measures would be taken to protect the windows during construction, it is possible that some panes could be broken. If broken panes cannot be replaced because of the severity of corrosion damage of the frames, then the entire frame would be replaced in kind.
- Move sump pump in the southeast corner of the building to behind the boiler facades. Structurally reinforce this area and repurpose space.
- Retain historic lighting fixtures, despite the possibility that they may be inoperable after construction. Potentially replace or remove non-historical lighting fixtures. Install new lighting to meet building code requirements.
- Install fire detectors and an alarm system.
    - Connect a chemical firefighting system to the diesel engine enclosures and standby power generator room.
- Connect a new sewage system (located inside the building next to the new conference room), including a holding tank and pumps, to the existing sewer line.
    - Relocate two small disconnect switches located in a vault in the front northeast corner of the building for the existing sewage holding tank to be above ground. New disconnect switches would be mounted on the interior wall of the Pump Station near the new holding tank, approximately 48 inches above the ground.
- Use the grass field south of the building (within the San Francisco Maritime National Historical Park) for construction staging. Restore the grass field to pre-project condition or better at the end of construction.
- Place two two-inch conduits through the eastern wall, below the ground surface.
- Install exhaust system for the new diesel generator. The six-inch diameter exhaust pipe would penetrate the roof and be attached to a vertically mounted silencer. A vertical extension pipe and rain cap would raise the end of the exhaust pipe to meet code requirements, approximately four feet higher than the existing generator engine exhaust. The extension pipe/silencer would be approximately ten feet tall and approximately six to ten inches in diameter, painted black, and centered on the roof approximately ten feet from both the south and east parapet walls. The existing engine exhaust (the two pipes that penetrate through the existing skylight) would be modified and extended by four feet to accommodate the taller new skylight.
- Relocate the existing workshop bench due to the expansion of the generator room.
- Keep current crane in its existing location and restrict its path of travel.
- Install new reinforced concrete drilled piers along the northern and eastern edges of the existing concrete water tanks for stability against the effect of sliding. New piers would not be visible from the exterior.
- Repair or reconstruct the existing garage.

Project Alternatives

Windows

In order to allow for the seismic strengthening along the exterior walls, the windows must be moved approximately seven inches closer to the exterior face of the wall. In order to retain the historic position of the windows, SFPUC originally attempted a design that incorporated the original window openings. Retaining the existing window openings in the new concrete walls, however, may not be possible for the following reasons:

1. Due to the relatively stiff horizontal truss diaphragm and steel roof deck, seismic forces will be distributed based on the rigidities of the concrete walls. If the north and east walls are detailed with openings to accommodate the existing windows, they will be much more flexible in relationship to the solid south and west walls. As a result, more forces will be attracted to the solid south and west walls. This is very undesirable because the foundations along the south and west walls, which are eccentrically placed to avoid excavation on the existing hillside, as well as the segmental nature of the pile caps that are placed between the existing west retaining wall buttress footings, are not well suited to resist high uplift forces.

2. Due to the large opening for the skylight, the center portion of the steel roof deck is not well suited to carry high shear force. If the north and east walls are detailed with openings to accommodate the existing windows, there is potential for high shear force in the center portion of the steel roof deck as a result of the eccentricity between the center of mass and rigidity.

3. In accordance with American Concrete Institute (ACI) 318: *Building Code Requirements for Structural Concrete*, the boundaries of the north and east walls with openings need to be confined by transverse reinforcement in the form of hoops and cross ties. The presence of these transverse reinforcements will make it extremely difficult, if not impossible, to fit the concrete reinforcements between the existing concrete encased steel columns and the openings.

As a result of these complications, solid walls must be constructed behind the windows. This will necessitate repositioning the existing windows by approximately 7 inches to make room for the new reinforced concrete walls.

Public Participation

The Mitigated Negative Declaration (MND), dated October 29, 2009, was circulated and made public. To date, SFPUC has received no input on the MND.

APPLICATION OF CRITERIA OF ADVERSE EFFECT

Project activities proposed for Pump Station No. 2, the water tanks, and the garage would cause an adverse effect to these contributors to the Fort Mason Historic District. The project activities that could cause significant direct impacts on the station are:

- **Building Structure—**Reinforcing Pump Station No. 2's interior walls and columns, as well as introducing new steel bracings as part of the repair and stabilization of the building, will cause a change in the visual elements of these historic features. The thickness of the walls and columns will be visually altered.

- **Conference Room and Office—**Structurally reinforcing the steam boiler facades and preserving them in place, as well as removing the rear portion of the boilers for use for the attendant's quarters, creates both beneficial and adverse effects. Seismically reinforcing the boiler facades is beneficial to the preservation of the facades in the event of a major earthquake. The removal of the rear of the boilers and the construction of the new office and conference space is an adverse effect because it is removing a significant portion of the boilers and putting something new in its place. This alteration will change the character-defining features that qualify the property for the National Register, in that the walls of the original boilers would be demolished in order to make room for the new spaces. The addition of visual elements will diminish the integrity of the property's significant historic features, and therefore would have an adverse effect on the property.
- **Windows—**This undertaking will have an adverse effect on the windows. Repositioning the windows approximately seven inches closer to the outside wall with the backing of a non-transparent shear wall will impact the appearance of Pump Station No. 2.
- **Garage—**The undertaking will have an adverse effect on the garage. The garage will be repaired or reconstructed.

The following actions would result in no adverse effect to the historic district:

- **Piping—**The undertaking's activities to the existing underground pipelines will not cause adverse effects on the property. Excavation near the pipelines would not diminish the historic integrity of the pipelines; therefore no adverse effects would occur. Excavation near the pipelines will not alter the characteristics of the historic property that qualify it for inclusion in the National Register.

- **Fire Sprinklers—**There will be no adverse effects to the property with the addition of two fire sprinkler systems. Introduction of this visual element will not alter the characteristics of the historic property that qualify it for inclusion in the National Register.

- **Generator Room—**Demolishing and reconstructing the generator room in approximately the same location would not alter the characteristics of the historic property that qualify it for inclusion on the National Register.
- **Electrical Panel—**Altering the electrical panel would not alter the characteristics of the historic property that qualify it for inclusion on the National Register.
- **Roofing System—**Replacing roofing materials of Pump Station No. 2, and replacing its historic leaded-glass skylights with seismically compliant glass, will not have an effect

on the historic visual appearance of the building. There will be no adverse effect due to the alteration of the glass skylights.

- **Basement**—The undertaking will not have an adverse effect on the property. Alteration of the basement will not alter the characteristics of the historic property that qualify it for inclusion on the National Register.

- **Workshop**—The undertaking will not have an adverse effect on the property, as the workshop will remain in its current location.
- **Crane**—The undertaking will not have an adverse effect on the property. Restriction of the crane's path will not alter the characteristics of the historic property that qualify it for inclusion on the National Register.

- **Water Tanks**—The undertaking will not have an adverse effect on the property. The tanks will be rehabilitated in a manner that will not alter the characteristics of the historic property that qualify it for inclusion on the National Register.
- **Ground Disturbance**—There will be some ground disturbance, but none that will have an adverse effect on the property. Near the pipelines, the ground disturbance would be 12 feet deep, and would involve only previously disturbed soil. The bottom of excavation inside the building is three feet below the existing finish grade. Excavation for the new discharge piping in and out of the sewage holding tank (inside and outside of the pump station) would be five feet deep.

Several of the criteria of adverse effect would *not* take place as a result of this undertaking:

- There is no removal of the Pump Station from its historic location;
- The use of the Pump Station and its associated structures remain unchanged;
- The property will not be neglected, transferred, leased, or sold;
- The proposed project would not alter the function or the operational design of the AWSS;
- Seismic retrofit of the water tanks would be beneficial to the property as it would Pump Station No. 2 and associated structures;
- Ground disturbance within the building is three feet below the existing finish grade. Excavation for new discharge piping into/out of the sewerage holding tank can be 5 feet deep.

CONCLUSIONS

This Finding of Adverse Effect has been prepared for the AWSS Pump Station No. 2 and its associated structures retrofit project, in compliance with 36 CFR, Part 800.5. The resources affected by the undertaking, Pump Station No. 2 and associated structures, are listed in the NRHP Fort Mason Historic District. Consequently, the undertaking appears to constitute an adverse effect, in accordance with 36 CFR, Part 800.

This Finding of Adverse Effect has been prepared for the Auxiliary Water Supply System (AWSS) Pump Station No. 2, water tanks, and garage, as part of a seismic retrofit project, in compliance with 36 CFR, Part 800.5. The resource affected by the undertaking is the Fort Mason Historic District. Consequently, the undertaking appears to constitute an adverse effect, in accordance with 36 CFR, Part 800.5.

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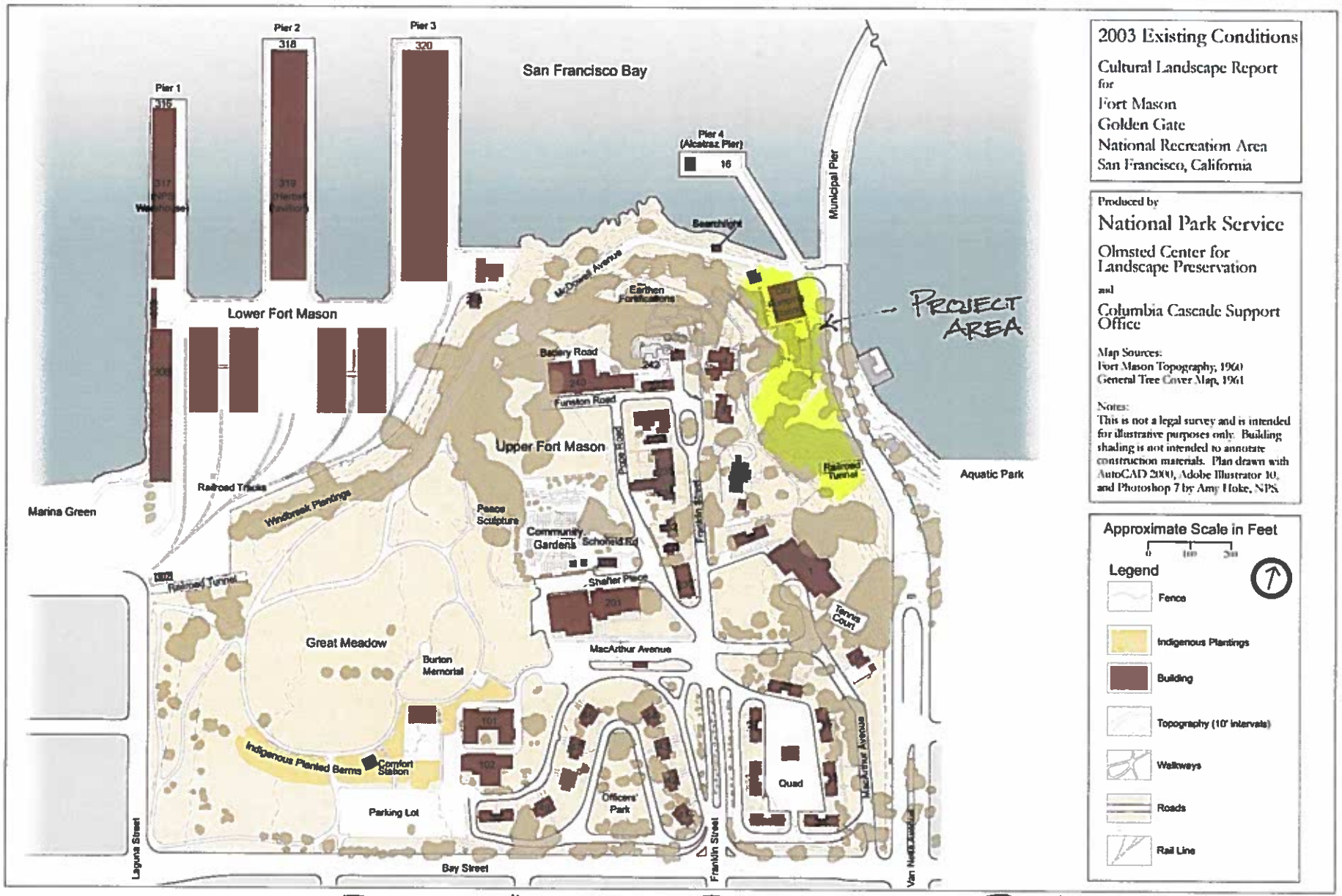
Attachment C:

Map showing the Area of Potential Effect (provided by NPS)



SFFD Pumphouse #2 Seismic Project Area of Potential Effects

Attachment D:

Correspondence from NPS to the State Historic Preservation Officer (SHPO) dated August 12, 2015 seeking review and comment regarding undertaking

United States Department of the Interior

NATIONAL PARK SERVICE
Golden Gate National Recreation Area
Fort Mason, San Francisco, California 94123

IN REPLY REFER TO:
H32 (GOGA-CRMM)

AUG 12 2015

Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Dear Ms. Polanco:

In accordance with the regulations of the Advisory Council on Historic Preservation, 36 CFR Part 800: Protection of Historic Properties, the National Park Service is seeking your review and comment on a project in the Fort Mason Historic District in San Francisco, California.

The City and County of San Francisco (CCSF) proposes to undertake alterations to contributing and non-contributing features at the site to address seismic deficiencies at Pump Station No. 2, which is part of the Auxiliary Water Supply System (AWSS). The pump station, water tanks, and garage are all listed as contributing features of the Fort Mason Historic District. San Francisco Maritime National Historical Park (SAFR) and Golden Gate National Recreation Area (GOGA) are consulting with your office in accordance with 36 CFR 800 because the land upon which the Pump Station and garage were constructed was transferred to the National Park Service (NPS) in the late 1970s, and the CCSF will need to obtain a permit from NPS for construction and staging. Both the Pump Station, its associated water tanks, and the adjacent garage are contributing features to the Fort Mason Historic District, a property on the National Register of Historic Places.

Consultation was initiated on October 30, 2009, but because of various delays, the schedule for the project was delayed until now. On May 28, 2015 we held a site visit attended by NPS, CCSF and Garavaglia Architecture staff with Mark Beason of the California SHPO's staff to familiarize him with the project. In 2009, the Area of Potential Effect (APE) was proposed to be the footprint of the two buildings involved. We have reviewed the project and determined that it will affect historic properties, and that a more appropriate Area of Potential Effect (APE) is the entire Fort Mason Historic District (see enclosed APE Map, Exhibit A).

For a detailed description of the condition, history, and significance of the Fort Mason Cultural Landscape District, please see the Fort Mason Cultural Landscape Report:

http://www.nps.gov/goga/learn/historyculture/upload/SCREEN-RES-FORT-MASON-CLR.pdf

Description of AWSS Pump Station No. 2: [1]

Pump Station No. 2, constructed in 1912, is located at the northernmost end of Van Ness Avenue, in the northeast corner of the Fort Mason Historic District.

The main building (see Existing Conditions Photos, Exhibit B) is a Mission Revival-style structure built of steel and reinforced concrete topped with stucco. The entire building is covered with a built-up ridged roof. A leaded-glass skylight, which extends the full length of the building, provides much of the natural light to the building. Mission Revival-style roof projections are located along the east and north elevations. These roof projections are clad in Spanish tile, with copper soffits and fascia. Four large arched windows on the east elevation match a series of three similar windows on the north elevation.

The primary entrance to the building is along the north elevation. This elevation features opaque windows near each corner, at a slightly higher level than the narrow windows on the east elevation. The south and west elevations of the building are utilitarian, with little ornamentation. A horizontal band of heavy molding at sill height defines the base of the building.

Pump Station No. 2 was constructed to pump seawater from the bay to the AWSS through a concrete intake tunnel approximately 160 feet long and 5 feet in diameter. The intake tunnel is beneath the pump station floor and below the level of low tide to facilitate direct water flow from the bay to the pump station. When originally constructed, Pump Station No. 2 contained four-stage turbine pumps, operated by steam boilers. These boilers were gas-fired, but also contained a reserve fuel oil supply in case seawater needed to be pumped into the system. On the exterior of the pump station, two above-ground, concrete, 50,000-gallon water storage tanks sit on the southeast side of the site. These water tanks were used to run the boilers for emergencies and for pump testing to flush the system. A retaining wall approximately ten feet high is located below these two tanks, to the rear of the pump station.

The interior of the pump station is filled with the station's machinery, described above. Along the middle of the south wall are two Cochrane Feedwater Heaters built by the Harrison Safety Boiler Works of Philadelphia, Pennsylvania. Along the wall to the west of the heaters are three boiler water feed pumps; to the north of these boilers are two similar fuel oil pumps with air tanks and fuel oil heaters, all manufactured by the George E. Dow Pumping Engine Co. of San Francisco.

In the mid-1970s, the interior of Pump Station No. 2 was modified. The steam turbines were removed from the four main pumps and replaced with diesel engines of equal power. The steam-turbine generator sets were removed and replaced with diesel generator sets, which included new electric power and a control center. All engine-driven machinery was enclosed in acoustic cubicles for noise control.

A detached garage, built in 1922, is located northwest of the pump station. This building rests on a board-formed, concrete foundation, topped with a shed roof constructed of corrugated metal. The walls of the garage are also clad in corrugated metal. Access to the two garage bays is via a set of wood double doors.

Updated Description of Proposed Undertaking

The primary intent of this undertaking is to address seismic deficiencies. The building's foundation, walls, and roof require substantial seismic retrofitting. Some of the equipment inside the building along the perimeter walls would need to be removed in order to perform this work. Additionally, some excavation will be required. The rear portion of the steam boilers—which were abandoned in place when the pumps

[1] The description of Pump Station No. 2 has been adapted from the 1976 National Register of Historic Places nomination.

were converted to diesel fuel—would be removed, allowing the space to be used for a new conference room compliant with the Americans with Disabilities Act (ADA), as well as providing access to the west wall for structural reinforcement. The steam boiler facades would be structurally braced and remain in the existing location. The narrow band of glazed tiles within the boiler corner columns at each end of the facade would be preserved. The original electrical panel would be anchored and remain approximately in its current location. The base of the pumps would be seismically anchored. The specifics of this project include (see enclosed Scope of Work Drawings, Exhibit C):

1. Laterally strengthen the building's structure with pile-supported reinforced concrete walls at the corners. Strengthen the perimeter walls for out-of-plane forces with structural steel on the inside face of the wall, and brace the roof parapets with new framing. Supplement or replace the steel roof trusses, north cornice roof framing, horizontal truss bracing, and cross frames with additional steel bracing. Remove the existing wall belts for the seismic work. Replace various gusset plates and steel rivets with high-strength modern versions.
    a. If new diesel engines are installed as a result of future air quality regulations, modify the west elevation with interior steel frames around intake and exhaust openings. Create modified openings to be six to eight inches in diameter to facilitate insertion of exhaust vents.
2. Demolish the side walls of the boilers. This is necessary due to the presence of hazardous materials (including asbestos) within and behind the glazed tiles.
3. Seismically brace and retain piping attached to the existing boiler facades, heaters, and one of the feedwater pumps in their current locations. Demolish interconnecting piping at the boilers and feed pumps. Demolish the steam exhaust piping along the north elevation and retain exhaust pipes along the south.
4. Fill in trench plates covered by steel plates to allow seismic strengthening of the boiler facades. As the trench plates are in poor condition, many cannot be removed without destroying them. In these cases, replace trench plates with new plates to substantially match the existing.
5. Connect a chemical firefighting system to the diesel engine enclosures and standby power generator room. Install a second fire-suppression system to serve the new conference room and existing office.
6. Demolish the office and attendant quarters in the existing mezzanine. Build a new fully ADA-compliant conference room behind the existing boiler facades (#1 and #2) in the western portion of the building. Construct a new office in the current office area.
7. Demolish the existing generator room and replace with a larger room in the same location. Remove the existing 1970s-era generator and replace with a modern generator.
8. Remove the equipment behind the original electrical panel to install seismic bracing and then relocate the panel to the north of its current location. During construction, salvage any historically significant equipment behind or above the panel to then display behind the boiler facades. If necessary, display some of the equipment (such as the three large rheostats on top of the panel) in front of the electrical panel. Relocate a synchronizer indicator from the north of the panel to the adjacent new office wall. A monitor would be present during this equipment removal to determine what can be salvaged and to provide direction on minimizing damage.
9. Remove the concrete-filled roof deck and replace with a cellular steel deck. Replace horizontal truss tension rods with structural steel diagonals and supplement with boundary members along the building perimeter. Replace unreinforced concrete curbs and end walls under the skylight with steel-framed structural walls.

a. Completely replace skylights (to meet current Building Code requirements, and also because the skylights are integrated within the existing roof) and install new skylights approximately ten inches higher to meet fall protection requirements.

b. Relocate existing ladder from the northeast corner of the roof to the northwest, and include a new roof hatch. Create roof penetrations for the heating/ventilation/air conditioning (HVAC) system and condenser, as well as vents for the conference room stove and bathroom.

c. Install diesel particulate filters on roof if determined necessary as the result of an air quality analysis by the Regional Water Quality Control Board (RWQCB).

10. Backfill the basement and cover with a concrete slab, in order to strengthen the foundation and avoid a structural void. Relocate the existing (and unused) equipment in the basement behind the boiler facades in a similar alignment.

11. Remove kitchen installed in the 1970s (in front of Boilers 1 and 2).

12. Relocate the ten small rectangular recessed windows and frames on the north and east walls of the building (but not the large, arched multi-pane bay windows) approximately seven inches closer to the outside face of the wall to allow for a new interior shear wall. The relocated windows would be recessed one inch. These windows would be inoperable, as solid walls would be constructed behind them. Paint the portion of the shear wall behind these windows a dark color to minimize any potential for reflection. Remove, salvage, and reinstall the existing interior window trim on the new structural interior shear wall.

    a. The existing windows and frames are metal, while the interior window trim is wood with metal cladding (a style known as "kalamein"). If the existing windows or frames are found to be deteriorated or corroded to the point where they cannot be relocated, repairs would be attempted, if feasible. If the windows or frames cannot feasibly be repaired, then new windows or frames would be fabricated and painted to match the existing windows. Any new replacement windows would match the profiles of the existing windows to the fullest extent possible. Replacement windows would be wood with aluminum cladding and be painted to match the existing windows.

    b. While measures would be taken to protect the windows during construction, it is possible that some panes could be broken. If broken panes cannot be replaced because of the severity of corrosion damage of the frames, then the entire frame would be replaced in kind.

13. Move sump pump in the southeast corner of the building to behind the boiler facades. Structurally reinforce this area and repurpose space.

14. Retain historic lighting fixtures, despite the possibility that they may be inoperable after construction. Potentially replace or remove non-historical lighting fixtures. Install new lighting to meet building code requirements.

15. Install fire detectors and an alarm system.

    a. Connect a chemical firefighting system to the diesel engine enclosures and standby power generator room.

16. Connect a new sewage system (located inside the building next to the new conference room), including a holding tank and pumps, to the existing sewer line.

    a. Relocate two small disconnect switches located in a vault in the front northeast corner of the building for the existing sewage holding tank to be above ground. New disconnect

switches would be mounted on the interior wall of the Pump Station near the new holding tank, approximately 48 inches above the ground.

17. Use the grass field south of the building (within the San Francisco Maritime National Historical Park) for construction staging. Restore the grass field to pre-project condition or better at the end of construction.
18. Place two two-inch conduits through the eastern wall, below the ground surface.
19. Install exhaust system for the new diesel generator. The six-inch diameter exhaust pipe would penetrate the roof and be attached to a vertically mounted silencer. A vertical extension pipe and rain cap would raise the end of the exhaust pipe to meet code requirements, approximately four feet higher than the existing generator engine exhaust. The extension pipe/silencer would be approximately ten feet tall and approximately six to ten inches in diameter, painted black, and centered on the roof approximately ten feet from both the south and east parapet walls. The existing engine exhaust (the two pipes that penetrate through the existing skylight) would be modified and extended by four feet to accommodate the new taller skylight.
20. Relocate the existing workshop bench due to the expansion of the generator room.
21. Keep current crane in its existing location and restrict its path of travel.
22. Install new reinforced concrete drilled piers along the northern and eastern edges of the existing concrete water tanks for stability against the effect of sliding. New piers would not be visible from the exterior.
23. Repair or reconstruct the existing garage.

Assessment of Effect

Analysis by Garavaglia Architecture—with concurrence by NPS cultural resources staff—has identified the following adverse impacts within the Fort Mason Historic District:

- **Building Structure**—Reinforcing Pump Station No. 2's interior walls and columns, as well as introducing new steel bracings as part of the repair and stabilization of the building, will cause a change in the visual elements of these historic features. The thickness of the walls and columns will be visually altered.

- **Conference Room and Office**—Structurally reinforcing the steam boiler facades and preserving them in place, as well as removing the rear portion of the boilers for use for the attendant's quarters, creates adverse effects. Although seismically reinforcing the boiler facades is beneficial to the preservation of the facades in the event of a major earthquake, the removal of the rear of the boilers and the construction of the new office and conference space is an adverse effect because it is removing a significant portion of the boilers and putting something new in its place. This alteration will change the character-defining features that qualify the property for the National Register in that the walls of the original boilers would be demolished in order to make room for the new spaces. The addition of visual elements will diminish the integrity of the property's significant historic features, and therefore would have an adverse effect on the property.

- **Windows**—This undertaking will have an adverse effect on the windows. Repositioning the windows approximately seven inches closer to the outside wall with the backing of a non-transparent shear wall will impact the appearance of Pump Station No. 2.

- **Garage**—The undertaking will have an adverse effect on the garage if it is reconstructed or if it is repaired without following the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Bracing the piping systems, installing the fire sprinkler systems, demolishing and reconstructing the non-historic generator room, altering the basement, and upgrading the roof system and skylights will not alter the characteristics of the historic property that qualify it for inclusion on the National Register. Furthermore, these qualifying characteristics will not be affected through altering the historic electrical panel in order to seismically brace it, restricting the crane's path, or rehabilitating the water tanks following the Secretary of the Interior's Standards for the Treatment of Historic Properties.

There will be some ground disturbance, but none that will have an adverse effect on the property. Near the pipelines, the ground disturbance would be 12 feet deep, and would involve only previously disturbed soil. The bottom of excavation inside the building is three feet below the existing finish grade. Excavation for the new discharge piping in and out of the sewage holding tank (inside and outside of the pump station) would be five feet deep.

Request for Concurrence

We seek your concurrence that this APE is adequate to take the effect of the undertaking on historic properties into account.

Applying the Criteria of Effect, we find that the proposed project will have an effect on this historic property. Using the Criteria of Adverse Effect, we find that the effect will be adverse. We seek your concurrence with this finding.

Although this project will result in an adverse effect within the Fort Mason Historic District, this effect is limited to the building structure, windows, and garage. The necessary seismic upgrade will require retrofitting of the building's interior walls and columns as well as installing new steel bracing. These alterations will change the visual elements of the historic features. The windows will be modified and their exterior appearance will be altered. These modifications are unavoidable given the current conditions of the structural system at Pump Station No. 2.

To resolve the adverse effect to this cultural resource, the CCSF and NPS intend to draft and consult on a Memorandum of Agreement (MOA) to resolve the effects of this undertaking. Consulting parties will include the NPS, CCSF and SHPO and may include the ACHP.

We appreciate your review and comment on the proposed undertaking. Should questions arise in the review, please contact SAFR Chief of Cultural Resources and Museum Management, Robbyn Jackson, at 415-561-7019 or at Robbyn_L_Jackson@nps.gov.

Sincerely,

Kevin Hendricks
Superintendent
San Francisco Maritime National Historic Park

Christine Lehnertz
General Superintendent
Golden Gate National Recreational Area

cc: Abby sue Fisher, Chief of Cultural Resources, GGNRA
Stephen Haller, Park Historian, GGNRA
David Myerson, Project Manager, SFPUC
Scott MacPherson, Environmental Project Manager, SFPUC
Tina Tam, Senior Preservation Planner, San Francisco Planning Department

Enclosures (5):
Exhibit A – Area of Potential Effect Map
Exhibit B – Existing Conditions Photos
Exhibit C – Drawings Depicting Scope of Work
Auxiliary Water Supply System, Pump Station No. 2 Finding of Adverse Effect
Minor Project Modification from SF Public Utilities Commission

Attachment E:

Correspondence from SHPO to NPS dated December 10, 2015, concurring with language of draft MOA

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov

December 10, 2015 In reply refer to: NPS091103B

Kevin Hendricks, Superintendent
National Park Service
San Francisco Maritime National Historic Park
Fort Mason Center, Building E
San Francisco, CA 94123

Re: Rehabilitation and Seismic Retrofit of Pump House No. 2, Auxiliary Water Supply System, San Francisco Maritime National Historic Park

Dear Mr. Hendricks:

This letter finalizes comments from the State Historic Preservation Officer (SHPO) regarding the design review for the undertaking to rehabilitate and seismically retrofit Pump House No. 2. Following my letter dated October 1, 2015, NPS submitted responses to comments on the proposed design.

The responses provided sufficient details to address my concerns. The only remaining point to reinforce is that NPS should make every attempt to recover and reuse the existing windows in the rehabilitation efforts.

NPS and SHPO staff members have exchanged comments on a draft Memorandum of Agreement (MOA) to resolve the adverse effects caused by the undertaking. The consultation and MOA review process will resume after receiving responses from the City and County of San Francisco and a new draft of the MOA.

Thank you for seeking SHPO comments and considering historic properties as part of your project planning. If you have any questions or concerns regarding these comments, please contact Mark Beason, State Historian, at (916) 445-4047 or mark.beason@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

Attachment F:

Minor Project Modification No. 3 for Pump Station No. 2, dated January 21, 2015

MINOR PROJECT MODIFICATION

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Minor Project Modification Number: 03 **Date:** 1/21/15

Project Title: CCSF Auxiliary Water Supply System Seismic Upgrade Project

MEA Case No./Project No. 2009.0568E/CUWAWSAW04

MPM Prepared By: Scott MacPherson, Environmental Project Manager

MPM Triggered By: ☐ RFD ☐ PCO ☒ Other: SFPUC

Landowner: ☒ SFPUC ☐ Other:

Vegetative Cover/Land Use: Lawn, existing building **Net Acreage Affected:** .34 acres (w/o building)

Modification From: ☐ Mitigation Measure: ☒ Other: Project Description

☐ Permit:

Detailed Description of Minor Project Modification:

The San Francisco Public Utilities Commission (SFPUC) proposes the below minor modifications to the City and County of San Francisco Auxiliary Water Supply System Pump Station No. 2 (PS 2). The SFPUC has proposed several modifications to the project as described below.

Proposed Revisions to the Project

Construction at this location is now proposed to begin in 2016 (depending on when federal approval is obtained) with a construction duration of approximately 31.5 months. This is longer than the 18 to 24 month construction duration described in the FMND.

After the FMND was approved, further design work for PS 2 (to meet seismic safety criteria) resulted in changes in the preliminary design as described in the FMND. A new site plan is shown in Figure 1.

The modified project consists of the following:

Building Structure—The FMND described a seismic retrofit that included walls and columns being reinforced with shotcrete, while the north, east, and south walls would be fitted with an interior steel moment frame around all of the bay window openings. Further analysis has determined that these seismic improvement measures would not be sufficient. Instead, the modified project would strengthen the building with pile-supported reinforced concrete walls at the corners. The perimeter walls would be strengthened for out-of-plane forces with structural steel on the inside face of the wall, and the roof parapets would be similarly braced with new framing. While the FMND described the steel roof trusses being supplemented with additional steel bracing, the modified project would also require the north cornice roof framing and cross frames be supplemented with steel bracing. Various gusset plate and steel bolts would be replaced with high-strength, modern versions. The west elevation would be modified, with

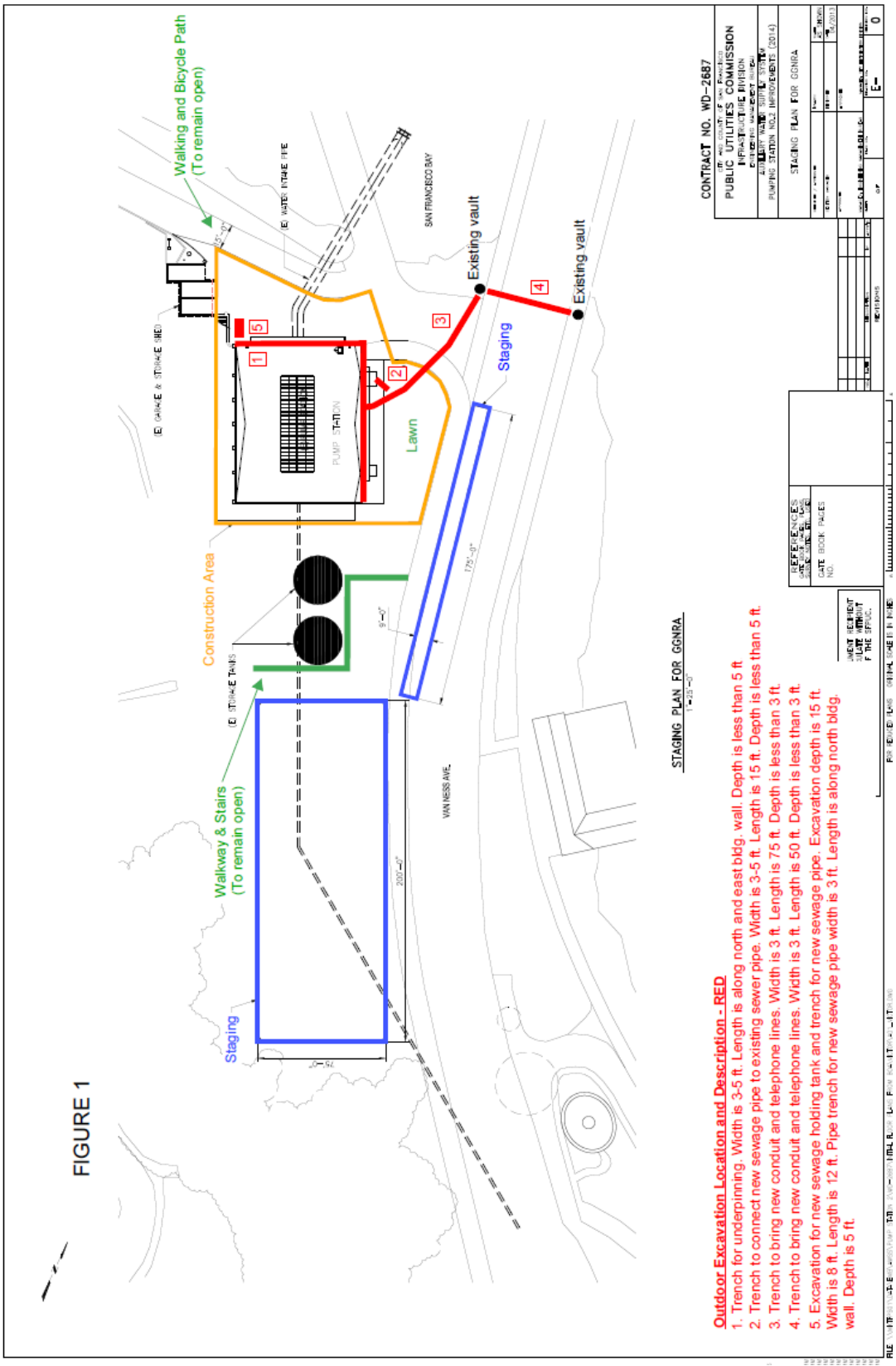


FIGURE 1
Walking and Bicycle Path
(To remain open)
Existing vault
Existing vault
Staging
Lawn
Construction Area
Walkway & Stairs
(To remain open)
Staging
VAN NESS AVE.
SAN FRANCISCO BAY
STAGING PLAN FOR GGNRA
CONTRACT NO. WD-2687
PUBLIC UTILITIES COMMISSION
STAGING PLAN FOR GGNRA
Outdoor Excavation Location and Description - RED
1. Trench for underpinning. Width is 3-5 ft. Length is along north and east bldg. wall. Depth is less than 5 ft
2. Trench to connect new sewage pipe to existing sewer pipe. Width is 3-5 ft. Length is 15 ft. Depth is less than 5 ft.
3. Trench to bring new conduit and telephone lines. Width is 3 ft. Length is 75 ft. Depth is less than 3 ft.
4. Trench to bring new conduit and telephone lines. Width is 3 ft. Length is 50 ft. Depth is less than 3 ft.
5. Excavation for new sewage holding tank and trench for new sewage pipe. Excavation depth is 15 ft. Width is 8 ft. Length is 12 ft. Pipe trench for new sewage pipe width is 3 ft. Length is along north bldg. wall. Depth is 5 ft.

interior steel frames around areas that could be used as intake and exhaust openings, in the event new diesel engines are installed as a result of future air quality regulations (the existing diesel engines were installed in the 1970's).

Side of boilers—The FMND stated the glazed tile from the boiler side walls would be salvaged and used to reconstruct portions of the side walls. The side walls would not be reconstructed under the modified project due to hazardous materials (including asbestos) within and behind the glazed tiles. The side of an existing boiler is shown in Figure 2.

FIGURE 2 - Side of a boiler showing glazed tiles

Piping—The piping attached to the existing boiler facades, heaters, and one of the feedwater pumps would be seismically braced and remain in their current configuration. The piping interconnecting the boilers and the other feedwater pumps would be demolished. The piping along the north elevation would

be demolished, but most pipes along the south elevation would remain in place. The existing boiler piping and locations where boiler piping would be removed is shown in Figures 3-6.

FIGURE 3 - Piping in front of a boiler (Boilers 5&6)

FIGURE 4 - Tubing above boiler support

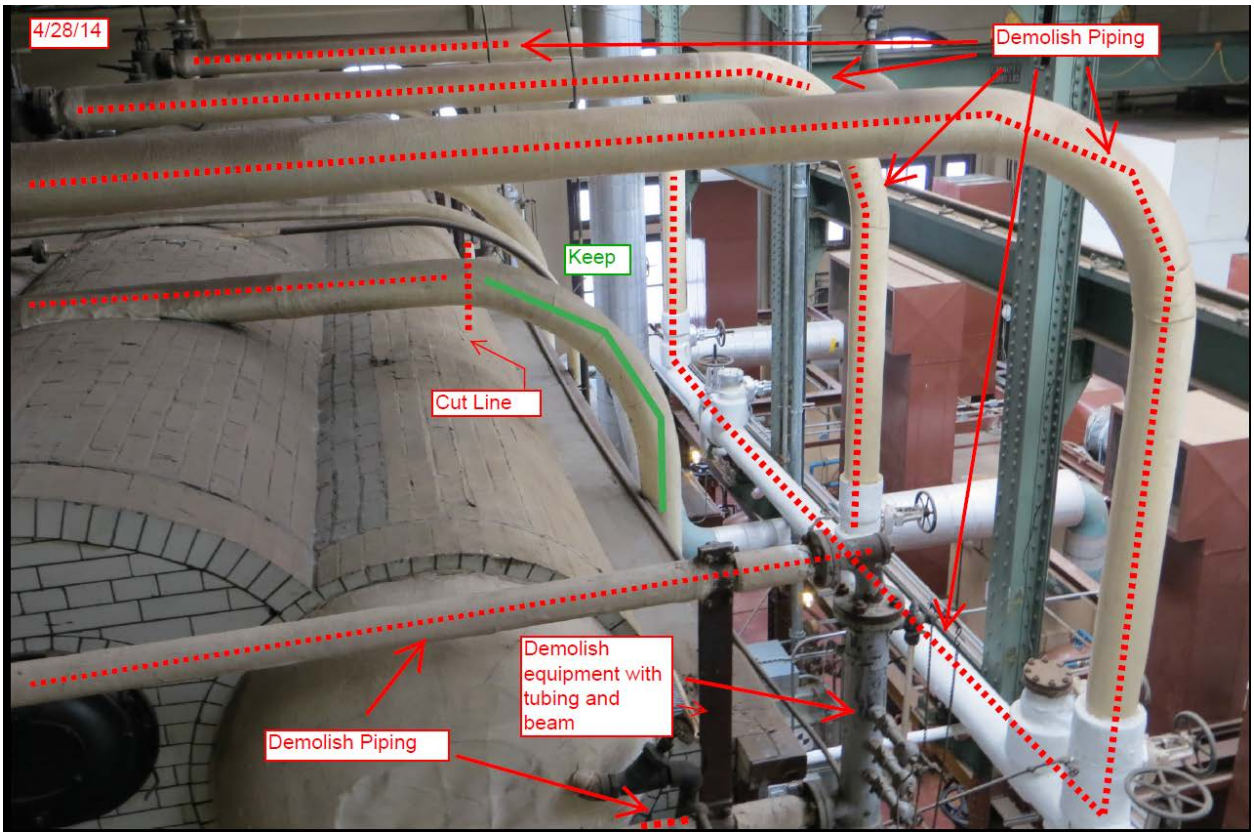


FIGURE 5 - Piping above boiler.

FIGURE 6 - Boiler façade, side.

Trench Plates—Currently, trenches covered by steel plates exist around the steam boilers. These trenches would be filled in to allow seismic strengthening of the boiler facades. Due to the poor condition of the trench plates, many cannot be removed without destroying them. In these cases, the trench plates would be replaced with new plates to match the existing. See Figure 7 for an example trench plate.

FIGURE 7 - Boiler trench with trench plates removed

Conference Room and Office—While the FMND described new SFFD crew quarters (including a kitchen and two bathrooms) in the west side of the building, a new Americans with Disabilities Act (ADA)-compliant conference room with kitchen and bathroom would be built instead under the modified project (behind the existing boiler facades #1 and #2).

Generator Room—The existing generator room, constructed in the 1970s (see Figure 8), would be demolished and replaced with a larger room in the same location. The existing 1970's era generator would be replaced with a modern generator.

FIGURE 8 - Generator Room

Electrical Panel—The original electrical panel (Figure 9) requires seismic bracing, which requires the removal of equipment behind the panel. The proposed electrical panel support framing plan is shown in Figure 10. Any historically significant equipment behind or above the panel that can be salvaged during construction would be displayed behind the boiler facades. Alternatively, some of the equipment (such as the three large “boxes” on top of the panel) could be displayed in front of the electrical panel. A synchronizer indicator to the north of the panel (Figure 11) would be relocated to the adjacent new office wall. A historic monitor would be present during this equipment removal to determine what can be salvaged and to provide direction on minimizing damage.

FIGURE 9 - Electrical panel as seen from mezzanine stairs.

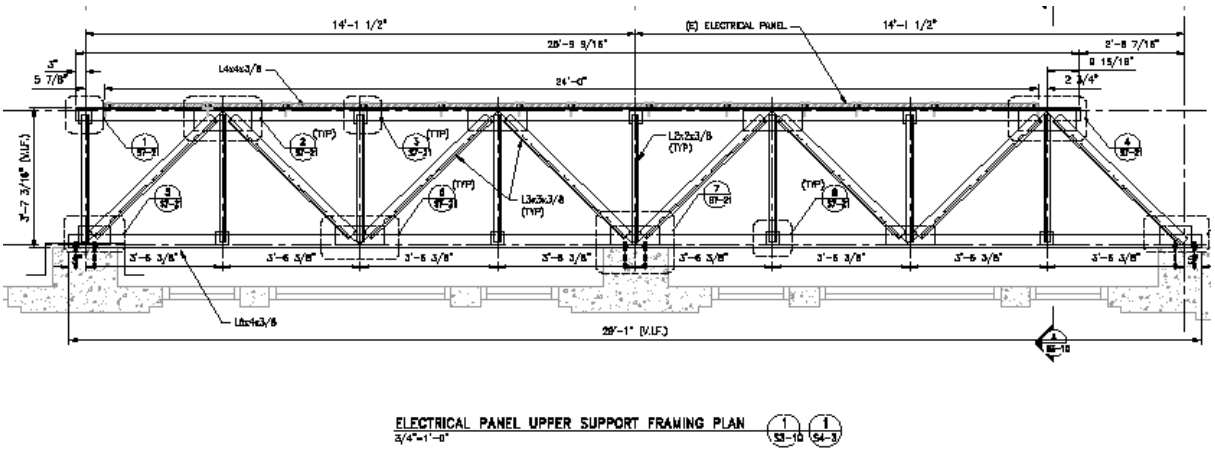


FIGURE 10 – Proposed electrical panel support framing plan. Framing would be constructed between the panel (top of exhibit) and the eastern wall of the facility (bottom of exhibit).

FIGURE 11 - Synchronizer indicator.

Roof and Roofing System—As the existing concrete roof (Figures 12 and 13) cannot be strengthened, the underlying ribbed-expanded metal, concrete-filled roof deck would be removed and replaced with a cellular steel deck, and the horizontal truss threaded rods would be replaced with structural steel diagonals and supplemented with boundary members along the building perimeter. The unreinforced concrete curbs and endwalls under the skylight would be replaced with steel-framed structural walls.

While the PMND indicated the glass in the skylights (Figure 14) would be replaced, the modified project would replace the skylights completely (both to meet current Building Code requirements, and also because the skylights are integrated within the existing roof). The new skylights would be approximately 10 inches higher, in order to meet fall protection requirements.

The existing ladder would be relocated from the northeast corner of the roof to the northwest, and would include a new roof hatch. Roof penetrations would be made for the heating/ventilation/air conditioning (HVAC) system and condenser, as well as vents for the conference room stove and bathroom.

If determined necessary as the result of an air quality analysis by the RWQCB, diesel particulate filters would be installed on the roof.

FIGURE 12 - Roof deck as seen from the interior.

FIGURE 13 - Detail of roof framing.

FIGURE 14 - Skylight

Basement—The basement would be backfilled and covered with a concrete slab, in order to strengthen the foundation and avoid a structural void. The existing (and unused) equipment in the basement (Figures 15-17) would be relocated behind the boiler facades in a similar alignment.

FIGURE 15 - Basement circuit pump (brown equipment at left) and condenser (silver equipment at right)

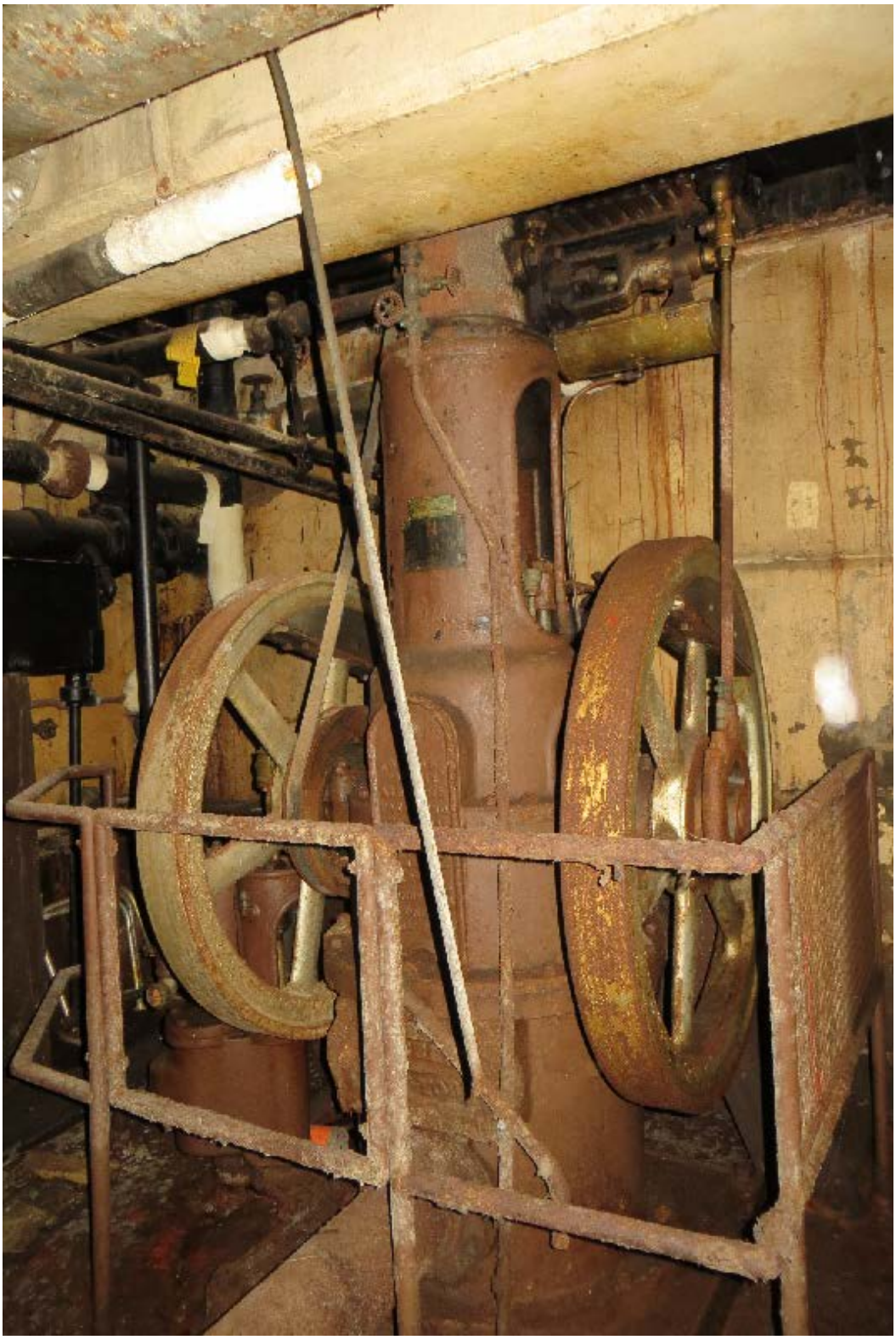


FIGURE 16 - Basement air pump

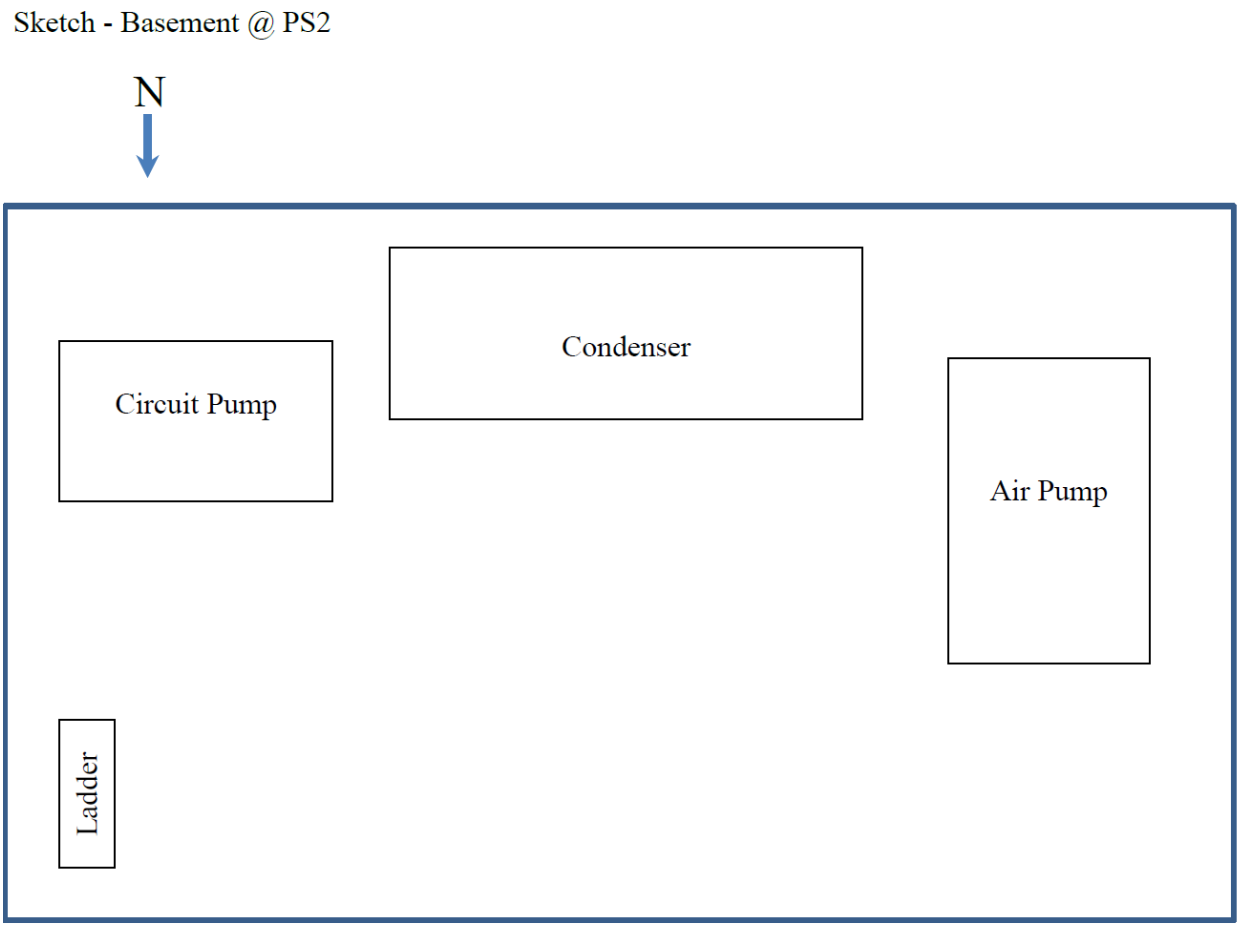


FIGURE 17 – Existing alignment of equipment in basement

Boiler Feed Pump—An unused boiler feed pump would be relocated behind the boiler facades, as its current location conflicts with proposed diagonal bracing (Figure 18).

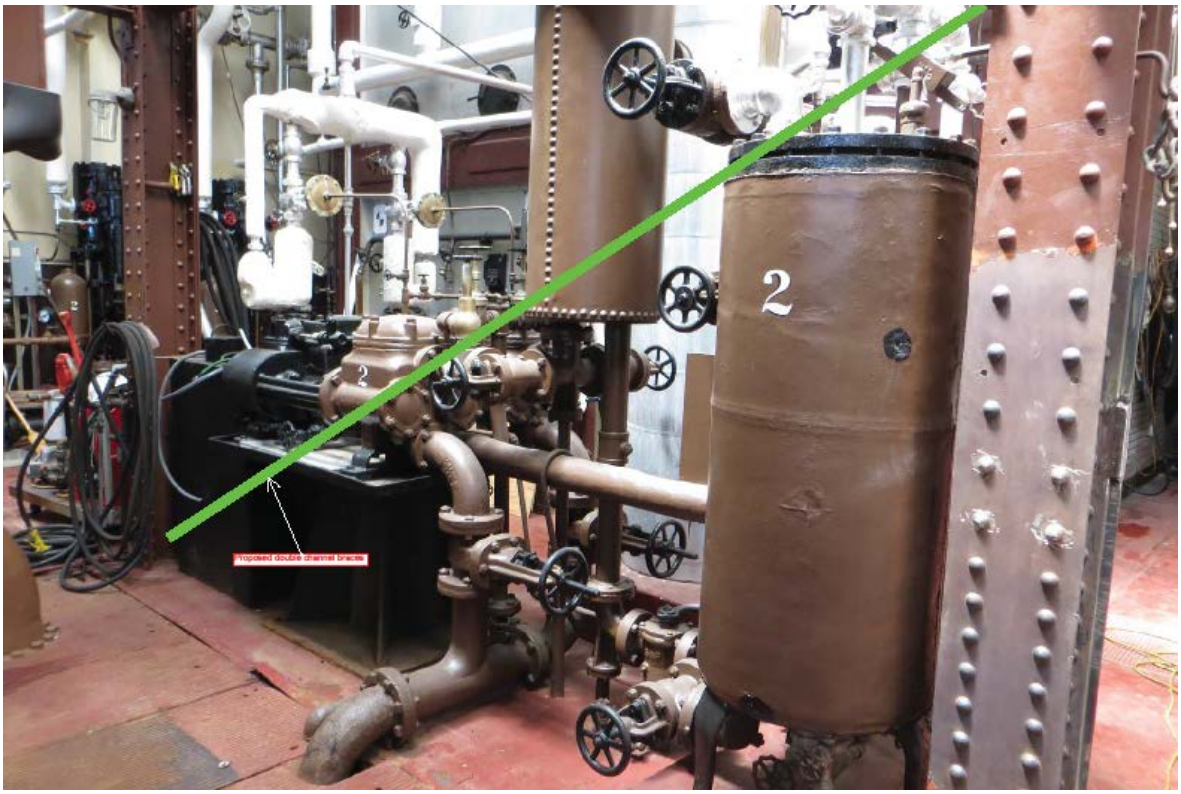


FIGURE 18 - Boiler feed pump. Location of proposed diagonal bracing is shown in green.

Existing Kitchen—A kitchen which was installed in the 1970s, in front of Boilers 1&2, would be removed.

Windows—The ten smaller rectangular recessed windows and window frames on the north and east walls of the building (but not the large, arched multi-pane bay windows) would be relocated approximately seven inches closer to the outside face of the wall, to allow for a new interior sheer wall. The relocated windows would be recessed one inch. These windows would be inoperable as solid walls would be constructed behind them, as described above. The portion of the sheer wall behind these windows would be painted a dark color to minimize any potential for reflection. Figure 19 shows the windows on the eastern façade of the building. The existing interior window trim (Figure 20) would be removed, salvaged and reinstalled on the new structural interior sheer wall.

FIGURE 19 - Eastern side of Pump Station No. 2, showing windows to be replaced at the far right and left, and four sets of Bay windows (to remain) in the center.

FIGURE 20 – Existing window interior trim

The existing windows and frames are metal, while the interior window trim is wood with metal cladding (a style known as “kalamein”). If the existing windows or frames are found to be deteriorated or corroded to the point where they cannot be relocated, repairs would be attempted, if feasible. If the windows or frames cannot feasibly be repaired, then new windows or frames would be fabricated and painted to match the existing windows. Any new replacement windows would match the profiles of the existing windows to the fullest extent possible. Replacement windows would be wood with aluminum cladding and be painted to match the existing windows.

While measures would be taken to protect the bay windows during construction, it is possible that some panes could be broken. If broken panes cannot be replaced because of the severity of corrosion damage of the frames, then the entire frame would be replaced in kind.

Main Door—The main (north) door to the facility would include a new lock, an automatic door opener, and push button to meet ADA access requirements (Figure 21).

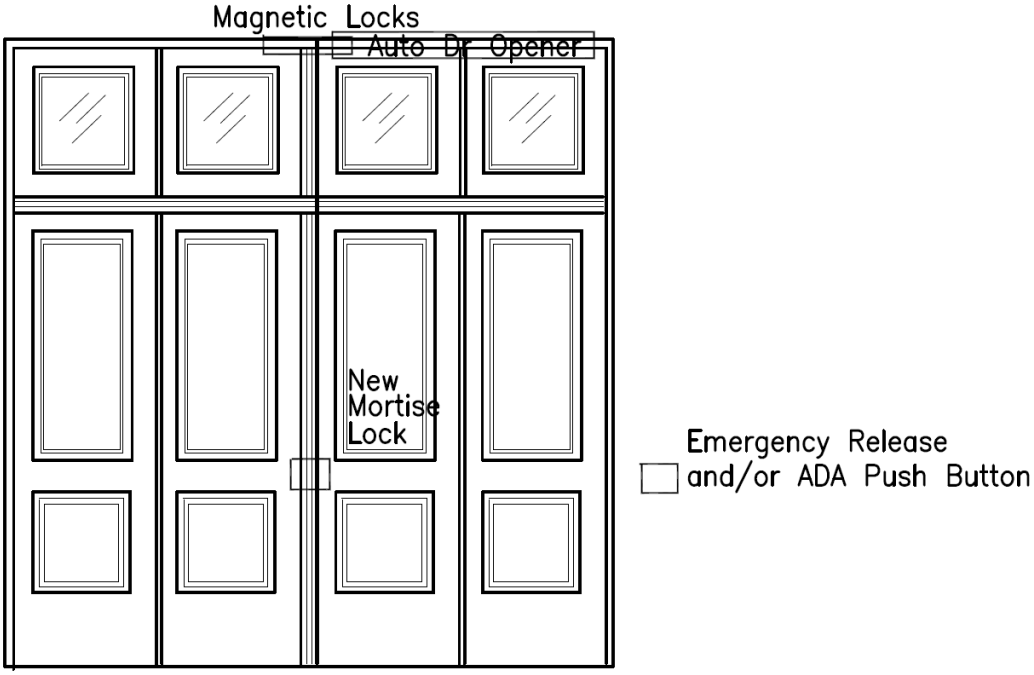


FIGURE 21 - Northern door showing proposed ADA automatic door equipment.

Sump Pump—A sump pump in the southeast corner of the building (Figure 22) would be moved behind the boiler facades. This area would be repurposed for structural reinforcement.

Lighting—Historic lighting fixtures would remain, although they may be inoperable after construction. Non-historical lighting fixtures could be replaced or removed. New lighting would be installed to meet building code requirements.

Fire Alarm—While the FMND described a new sprinkler system, the revised project also includes the installation of fire detectors and an alarm system.

A chemical firefighting system would be connected to the diesel engine enclosures and standby power generator room. The piping would run as high as the existing conduits and utility frame (as can be seen in Figure 23). Portions of the existing firefighting system can be seen in Figure chemical tanks would be placed behind the façade of boilers 3 & 4 once the boilers are removed.

FIGURE 22 - Sump Pump in southeast corner of building.

FIGURE 23 - Existing conduits and utility frame.

The other sprinkler system would be a traditional water system serving the new conference room (northwest portion of the building) and the existing office (northeast). The piping would be anchored to the existing utility frame that surrounds the area around the diesel engine rooms.

Outside Infrastructure—A new sewerage system (under the existing parking spaces and part of the lawn on the east side of the building), including a holding tank and pumps, would connect to the existing sewer line.

There are two small disconnect switches located in a vault in front northeast corner of the building for the existing sewage holding tank, which will be removed (Figure 24). Due to code requirements, these switches need to be relocated above ground in view of the tank. New disconnect switches would be mounted on the exterior north wall of the Pump Station near the new holding tank, at approximately 48 inches above ground (see Figure 25). A 4-inch pipe would extend up from the ground approximately 3 feet over the new holding tank (currently the site of a parking space), protected by bollards. Figure 26 indicates the position of the bollards in red.

FIGURE 24 – Existing disconnect switches in a vault north of the building. New disconnect switches, to be mounted on the northern façade of the Pump Station (as seen in the next figure) would be similar to the existing switches.

FIGURE 25 – Location of the new disconnect switches on northern façade of building.

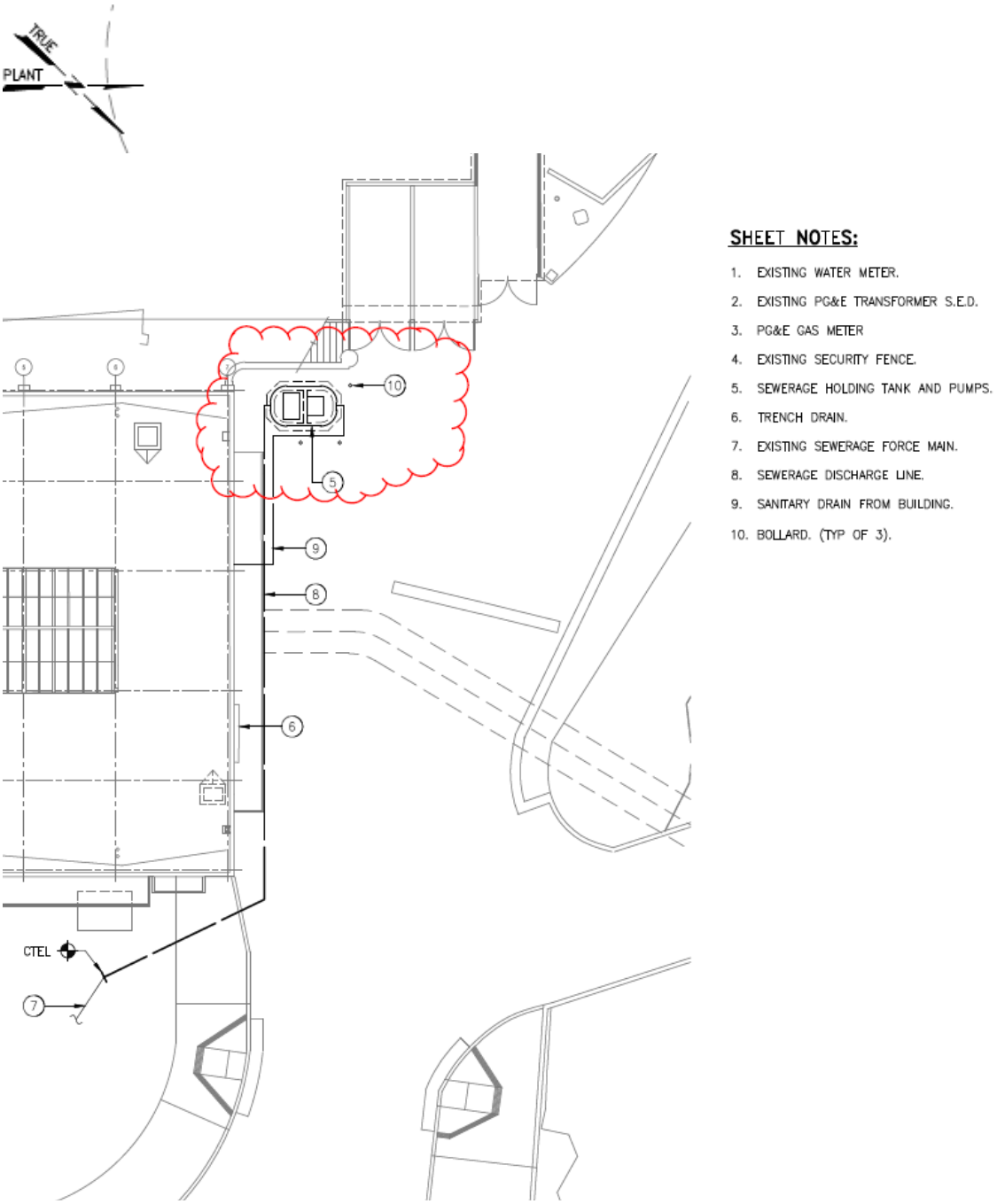


FIGURE 26 – Location of new bollards and above-ground pipe for new holding tank.

Staging Area—The grass field south of the building (within the San Francisco Maritime National Historical Park) would be used for construction staging (Figure 27). The grass field would be restored to pre-project condition or better at the end of construction.

Conduits—Two 2" conduits would be placed through the eastern wall, below the ground surface. An approximate location can be seen in Figure 1.

Generator Exhaust/Silencer—The new generator described above would require an exhaust pipe with a silencer on the roof. The exhaust pipe for the existing generator would be removed (it can be seen in Figure 19), and the new pipe would be located in approximately the same location. The exhaust pipe/silencer would be 10 feet tall and approximately 6 to 10 inches in diameter, and be painted black. The new pipe would be approximately 4 feet higher than the existing pipe, due to code requirements.

FIGURE 27 – Staging area as seen from Van Ness.

Attachments:			
Biological ☐ Yes ☒ No	**Cultural** ☐ Yes ☒ No	**Photos** ☒ Yes ☐ No	**Other** ☐ Yes ☒ No

Resources:

Biological ☒ No Resources Present ☐ Resources Present ☐ NA

Previous Biological Survey Report Reference:

Cultural ☐ No Resources Present ☒ Resources Present ☐ Within Project APE

☐ NA (no ground disturbance)

Previous Cultural Survey Report Reference: FMND, Section E4, Cultural and Paleontological Resources, City and County of San Francisco, December 2009

Conditions of Approval or Reasons for Denial

Implementation of MND Mitigation Measures referred to in this Minor Project Modification

SFPUC Required Signatures for Environmental Approval:

EPM Scott MacPherson Digitally signed by Scott MacPherson DN: cn=Scott MacPherson, o=SFPUC, ou=BEM, email=smacpherson@sfwater.org, c=US Date: 2015.01.21 11:52:56 -08'00' Date: 1/21/15

☐ Approved ☒ Approved with Conditions (see conditions above) ☐ Denied

SFPUC agrees that Contractor will abide by the mitigation measures detailed in the CEQA document and project permit requirements and have appropriate Specialty Environmental Monitors present where required.

Environmental Planning (EP) Required Signatures for Approval:

Signee: A. Date: 1/21/15

☐ Approved ☒ Approved with Conditions (see conditions above) ☐ Denied

CEQA SECTION	Applicable	(Y) Define Potential Impact or (N) Briefly Explain Why CEQA Section isn't Applicable
Geology and Soils	☐ Y ☒ N	No significant geology and soils impacts were identified in the FMND. The only work outside of the building would consist of minimal utility relocation. As a result, impacts would be consistent with the FMND and remain less than significant.
Hazardous Materials and Waste	☒ Y ☐N	As described in the FMND, a variety of hazardous materials would be routinely used, encountered or transported to the site during construction. Hazardous materials mitigation measures would be implemented per Mitigation Measures M-HZ-1 through 3. As a result, there would be no new impacts beyond those identified in the FMND and would remain less than significant after mitigation.
Hydrology and Water Quality	☐ Y ☒ N	With the exception of minor utility relocation and replacement of the existing sewerage system, all construction would occur inside the existing building. No new impervious surfaces would be created and disturbance to groundwater is not expected to occur. As a result, impacts would be consistent with the FMND and remain less than significant. While the FMND states stormwater runoff would flow into a combined wastewater/stormwater system, at PS 2 stormwater flows to the bay. However, this would not lead to any hydrology or water quality impacts as construction would still need to follow regulatory requirements on stormwater designed to reduce or eliminate any pollutants in stormwater runoff. As a result, there would be no new impacts beyond those identified in the FMND.
Cultural and Paleo. Resources	☒ Y ☐ N	Pump Station No. 2 is listed on the NRHP as an individual property and is a contributor to both the Aquatic Park and Fort Mason Historic Districts. All mitigation measures, such as Mitigation Measure M-CP-1 (comply with Secretary of the Interior Standards for the Treatment of Historic Properties), would be implemented. In addition, Mitigation Measures M-CP-4, Protection of Historic Character-Defining Features, would require approval of the plan for interior construction by the San Francisco Planning Department. Minor trenching would be required on areas that have already been disturbed, but the FMND did not find evidence of any archeological resources adjacent to PS 2. As a result, there would be no new impacts beyond those identified in the FMND and would remain less than significant after mitigation.
Traffic and Circulation	☐ Y ☒ N	The FMND describes the frequency of vehicle trips by construction-related vehicles between six and 15 trips a day, and the revised project would fall within these parameters. No street closures are planned. As a result, there would be no new impacts beyond those identified in the FMND and would remain less than significant.
Air Quality	☐ Y ☒ N	As the same construction equipment and vehicles would be used for the revised project, construction air quality impacts would remain less than significant. As a result, there would be no new impacts beyond those identified in the FMND and would remain less than significant.

Noise	☐ Y ☒ N	Construction noise would be consistent with the San Francisco Noise Ordinance. No additional operational noise is expected – if new diesel engines are required by the BAAQMD, it would be expected that the more efficient modern equipment would run quieter, and in any case new engines would run inside the building, reducing any noise impact. As a result, there would be no new impacts beyond those identified in the FMND and would remain less than significant.
Aesthetics	☒ Y ☐ N	While the FMND anticipated seismic retrofitting of the roof and a new sealer for the concrete roof, the revised project would replace the concrete roof and skylights entirely, replace various windows, and replace an exhaust pipe. While the changes could be noticeable if compared with the existing structure (the roof is visible from the footpath to the north), the new roof/skylight and windows would appear similar and would not substantially degrade the existing visual character or quality of the site and its surroundings. As a result, there would be no new impacts beyond those identified in the FMND and would remain less than significant.
Biological Resources	☐ Y ☒ N	The project site contains a grass lawn. There is no natural habitat remaining on or next to the project site. As a result, there would be no new impacts beyond those identified in the FMND and would remain less than significant.

Attachment G:

Undated architectural and structural drawings prepared by the Public Utilities Commission, "Auxiliary Water Supply Pumping Station No. 2 Improvements", (19 sheets total, compiled and abridged from full set)

ABBREVIATIONS

&	AND
L	ANGLE
@	AT
Ø	DIAMETER OR ROUND
#	POUND OR NUMBER
A.C.	ASPHALT CONCRETE
A.D.A.	AMERICANS WITH DISABILITIES ACT
A.F.F.	ABOVE FINISH FLOOR
ALUM.	ALUMINUM
ANOD.	ANODIZED
APA.	AMERICAN PLYWOOD ASSOCIATION
ARCH.	ARCHITECTURAL
B.	BASE
B.O.	BOTTOM OF
BOT.	BOTTOM
BLDG.	BUILDING
BM.	BEAM
℄	CENTER LINE
C.I.	CAST IRON
CAB.	INDIVIDUAL CABINET (UPPER OR LOWER)
CLG.	CEILING
CLR.	CLEAR
CEM.	CEMENT
C.M.U.	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONT.	CONTINUOUS
C.T.	CERAMIC TILE
CTR.	CENTER
C.C.S.F.	CITY AND COUNTY OF SAN FRANCISCO
D.	DEEP
DBL. TEMP.	DOUBLE TEMPERED
DET.	DETAIL
D.F.	DRINKING FOUNTAIN
ø, DIA.	DIAMETER
DIM.	DIMENSION
DN.	DOWN
D.S.	DOWNSPOUT
DWG.	DRAWING
DWY.	DRIVEWAY
D.P.	DIMENSION POINT
D.P.W.	DEPARTMENT OF PUBLIC WORKS
(E)	EXISTING
EA.	EACH
E.J.	EXPANSION JOINT
ELEV.	ELEVATION
ELECT.	ELECTRICAL
E.N.	EDGE NAILING
EQ.	EQUAL
EXP.	EXPANSION
EXT.	EXTERIOR
F.D.	FLOOR DRAIN
FDN.	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.O.F.	FACE OF FINISH
F.F.	FINISH FLOOR
F.H.M.S.	FLAT HEAD METAL SCREW
FIN.	FINISH
FIXT.	FIXTURE
FLASHG.	FLASHING
FLR.	FLOOR
F.O.C.	FACE OF CONCRETE
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
F.R.	FIRE RATED
F.S.	FAR SIDE
FT.	FOOT OR FEET
FTG.	FOOTING
FUT.	FUTURE
GA.	GAUGE
GALV.	GALVANIZED
GR.	GRADE
G.S.M.	GALVANIZED SHEET METAL
GYP. BD.	GYPSUM BOARD

ABBREVIATIONS

H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
H.P.	HIGH POINT
HT.	HEIGHT
I.D.	INTERIOR DIAMETER
INFO.	INFORMATION
INSUL.	INSULATION
I.S.A.	INTERNATIONAL SYMBOL OF ACCESSIBILITY
JT.	JOINT
LAM.	LAMINATED
LT.	LIGHT/LEFT
L.F.	LINEAL FEET
LWR.	LOWER
MFR.	MANUFACTURER
MATL.	MATERIAL
MAX.	MAXIMUM
MET.	METAL
MTL.	METAL
M.H.	MANHOLE
MIN.	MINIMUM
MTD.	MOUNTED
N.D.	NORMAL DIAMETER
NEO	NEOPRENE
(N)	NEW
N.I.C.	NOT IN CONTRACT
NO., #	NUMBER
NOM.	NOMINAL
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
O/	OVER
O.C.	ON CENTER
O.C.E.W.	ON CENTER EACH WAY
O.D.	OUTSIDE DIAMETER
OPP. HD.	OPPOSITE HAND
O/H	OVERHEAD
OSB.	ORIENTED STRANDED BOARD
P.	PAINT
PL.	PLATE
PLAS.	PLASTIC
PLCCP	PROGRAMMABLE LOGIC CONTROLLER CONTROL PANEL
PNL.	PANEL
PLYWD.	PLYWOOD
PT.	POINT
PVMT.	PAVEMENT
P.T.	PRESSURE TREATED
R., RAD.	RADIUS
REDWD.	REDWOOD
REF.	REFERENCE
REINF.	REINFORCED
REQ'D.	REQUIRED
RM.	ROOM
R.O.	ROUGH OPENING
RT.	RIGHT
R.W.L.	RAIN WATER LEADER
SFWD	SAN FRANCISCO WATER DEPARTMENT
S.C.	SOLID CORE
SCH.	SCHEDULE
SEC.	SECTION
S.F.	SQUARE FEET
SHT.	SHEET
SIM.	SIMILAR
S.C.D.	SEE CIVIL DRAWINGS
S.E.D.	SEE ELECTRICAL DRAWINGS
S.M.D.	SEE MECHANICAL DRAWINGS
S.M.S.	SHEET METAL SCREW
S.S.D.	SEE STRUCTURAL DRAWINGS
SPEC'S.	SPECIFICATION
SQ.	SQUARE
S.S.	STAINLESS STEEL
STA.	STATION

ABBREVIATIONS

STD.	STANDARD
STL.	STEEL
STRUCTL., STRL.	STRUCTURAL
SYM.	SYMMETRICAL
SW.	SIDEWALK
TEL.	TELEPHONE
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
TOL.	TOLERANCE
T.S.	TUBULAR STEEL
T.W.	TREAD WIDTH
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VCT.	VINYL COMPOSITION TILE
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
V.F.D.	VARABLE FREQUENCY DRIVE
WD.	WOOD
W.P.	WORK POINT
W.R.B.	WATER RESISTATIVE BARRIER–BUILDING PAPER
W.W.F.	WELDED WIRE FABRIC

SYMBOLS LEGEND

CONCRETE

PLYWOOD

ACCESSIBLE PATH OF TRAVEL

STUCCO

GRAVEL

DOOR NUMBER

EARTH

WALL/PARTITION

WINDOW NUMBER

BATT INSULATION

X — PARTITION TYPE (FIRE RATING SHOWN ON PARTITION SCHEDULE)

LOUVER NUMBER

STEEL

A / A0.01 — SECTION REFERENCE DRAWING NUMBER

WORK POINT CONTROL POINT OR DATUM

GLASS

A / D 1 B / C A0.01 — ELEVATION REFERENCE DRAWING NUMBER

0.8' NEW OR REQUIRED POINT ELEVATION

DETAIL AREA

WOOD

1 / A0.01 — DETAIL REFERENCE DRAWING NUMBER

GENERATOR ROOM 101 — SPACE/ROOM NUMBER

1 REVISION

GENERAL NOTES

1. SOME MATERIALS ENCOUNTERED DURING THW WORK CONTAIN CONSTITUDENTS KNOWN TO THE STATE OF CALIFORNIA TO BE EITHER CARCINOGENIC OR REPRODUCTIVE TOXINS. POTENTIAL HAZARDOUS MATERIALS AND CONDITIONS AT THE PROJECT SIDE REMAIN THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO REFER RELATED REFERENCE DOCUMENTS FOR HAZARDOUS MATERIALS SURVEYS, PROCEDURES, ABATEMENT AND CONTROL REQUIREMENTS FOR THIS PROJECT.
2. CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY ALL DIMENSIONS PRIOR TO DEMOLITION AND/OR CONSTRUCTION.
3. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE FIELD CONDITIONS SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF THE FIELD RESIDENT ENGINEER (R.E.).
4. DO NOT SCALE DRAWINGS. USE DIMENSIONS SHOWN.
5. INSTALL ALL WORK PLUMB, LEVEL AND STRAIGHT.
6. INSTALL MANUFACTURED MATERIALS AND EQUIPMENT ACCORDING TO MANUFACTURERS RECOMMENDATIONS AND INSTRUCTIONS, (U.O.N.).
7. PROVIDE ALL ITEMS NOT SPECIFIED BUT REQUIRED FOR A COMPLETE AND FINISHED JOB.
8. WORK REQUIRED UNDER THIS CONTRACT INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, ETC. NECESSARY TO COMPLETE THIS PROJECT.
9. ALL DIMENSIONS NOTED "CLEAR" OR "CLR." MUST BE STRICTLY MAINTAINED.
10. ALL WORK SHOWN ON THESE DRAWINGS IS ASSUMED TO BE NEW (N) EVEN IF NOT CALLED OUT AS NEW (N) UNLESS SPECIFICALLY CALLED OUT AS EXISTING (E).
11. AT LOACTIONS WHERE PAINT IS TO MATCH EXISTING, COLOR TO MATCH EXISTING TO THE FULLEST EXTENT POSSIBLE AND SHALL BE CHOSEN FROM THE MANUFACTURERS FULL RANGE OF COLORS INCLUDING BOTH STANDARD AND CUSTOM COLORS.

PROJECT DATA

BUILDING USAGE: PUMP STATION

OCCUPANCY: F-2 AND B IN OFFICE AREAS

CONSTRUCTION TYPE: IIB

BUILDING AREA: 6,800 SQ. FT.

FINISH FLOOR ELEVATION 0.00 =
SAN FRANCISCO CITY DATUM ELEVATION 0.00

ONE HOUR SEPARATION BETWEEN B OPCCUPANCY (OFFICES) AND F2 OCCUPANCY (PUMP ROOM).
2 HOUR SEPARATION BETWEEN GENERATOR ROOM AND F2 OCCUPANCY (PUMP ROOM).

CODES

SAN FRANCISCO BUILDING CODE
ADA STANDARDS FOR ACCESSIBLE DESIGN
AMERICAN WITH DISABILITIES ACT (ADA) TITLE II
NFPA 72 (AUDIBLE AND VISUAL EMERGENCY ALARMS)
SAN FRANCISCO PUBLIC WORKS CODE
CALIFORNIA MECHANICAL CODE
CALIFORNIA ELECTRICAL CODE
CALIFORNIA PLUMBING CODE
CALIFORNIA ENERGY CODE
CALIFORNIA FIRE CODE

CONTRACT NO. WD-2687

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY PUMPING STATION
NO. 2 IMPROVEMENTS (2014)

ARCHITECTURAL COVER SHEET

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

LICENSED ARCHITECT
KENT PAUL FORD
C-15335
REN. 1/2017
STATE OF CALIFORNIA

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUILDING DESIGN & CONSTRUCTION DIVISION

PROJECT ARCHITECT KENT FORD	DRAWN KENT FORD
SECTION MANAGER PETER WONG	DESIGNED KENT FORD
DIVISION MANAGER JULIA LAUE	CHECKED PETER WONG

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CHECKED / APPROVED		DRAWN	SCALE AS SHOWN
SECTION MANAGER		DESIGNED	DATE
APPROVED		APPROVED	
MANAGER, ENGINEERING MANAGEMENT BUREAU		MANAGER, CITY DISTRIBUTION DIVISION	
SHEET OF	PLAN NO. A0-0	DRAWING NO. E- XXXX	REVISION NO. 0

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4

ACCESSIBILITY COMPLIANCE LETTER

City and County of San Francisco

Edwin M. Lee, Mayor
Mohammed Nuru, Director

San Francisco Department of Public Works
Infrastructure Design and Construction
30 Van Ness Avenue, 5th Floor
San Francisco, CA 94102
Phone: (415) 557-4685 ■ www.sfdpw.org
TTY: (415) 558-3089
Fax: (415) 558-4293

Kevin W. Jensen AIA, CSI, ADA/Disability Access Coordinator

DISABILITY ACCESS COMPLIANCE FOR CITY FUNDED PROJECTS

Applicant: Fill in project name and address and then scan onto plans.

PROJECT: AWSS Pump Station No. 2

Project Address: Van Ness Avenue

Leave Area Below Blank – For DAC Staff Use Only

PLAN REVIEW STAGE: DPW-DAC has approved:

- ☐ Unreasonable Hardship / technically infeasible — Date:
- ☐ Playground ADA Inventory Form — Date:
- ☐ Pre-application review / site permit — Date:
- ☐ Final Construction Plan — Date: AUGUST/2014

INSPECTION STAGE: The following inspections are required, if selected. Call DAC at 557-4685 to schedule:

- ☐ Pre-Construction Conference
- ☐ Rough framing, after plumbing and electrical rough is complete
- ☐ Mock up inspection of bathrooms / kitchens
- ☐ Demonstration of adaptable cabinetry
- ☐ Signage, including proofs and color samples prior to fabrication
- ☐ Door closer pressure and timing
- ☐ Power door operator testing per BHMA A156.19
- ☐ Playground equipment, surface, and path of travel
- ☒ Final Signoff of Project

The following additional documents are required:

- ☐ Reasonable Accommodation Notices
- ☒ Signage approval from Lighthouse for the Blind
- ☐ Illustrated instruction manual to adapt unit interiors
- ☐ Inspection matrix listing each covered dwelling unit or common space

KEVIN JENSEN — By: Kevin Jensen

SIGNED OFF ON AUGUST 21, 2014 — Date:

Rev. February 10, 2014

2

1 ADA Approval Form

SCALE: N.T.S.

2 Existing Building Exterior

SCALE: N.T.S.

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

LICENSED ARCHITECT — KENT PAUL FORD — C-15335 — REN. 1/2017 — STATE OF CALIFORNIA

CONTRACT NO. WD-2687

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY PUMPING STATION NO. 2 IMPROVEMENTS (2014)

ADA COMPLIANCE FORM
EXISTING BUILDING EXTERIOR

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUILDING DESIGN & CONSTRUCTION DIVISION

PROJECT ARCHITECT: KENT FORD	DRAWN: KENT FORD
SECTION MANAGER: PETER WONG	DESIGNED: KENT FORD
DIVISION MANAGER: JULIA LAUE	CHECKED: PETER WONG

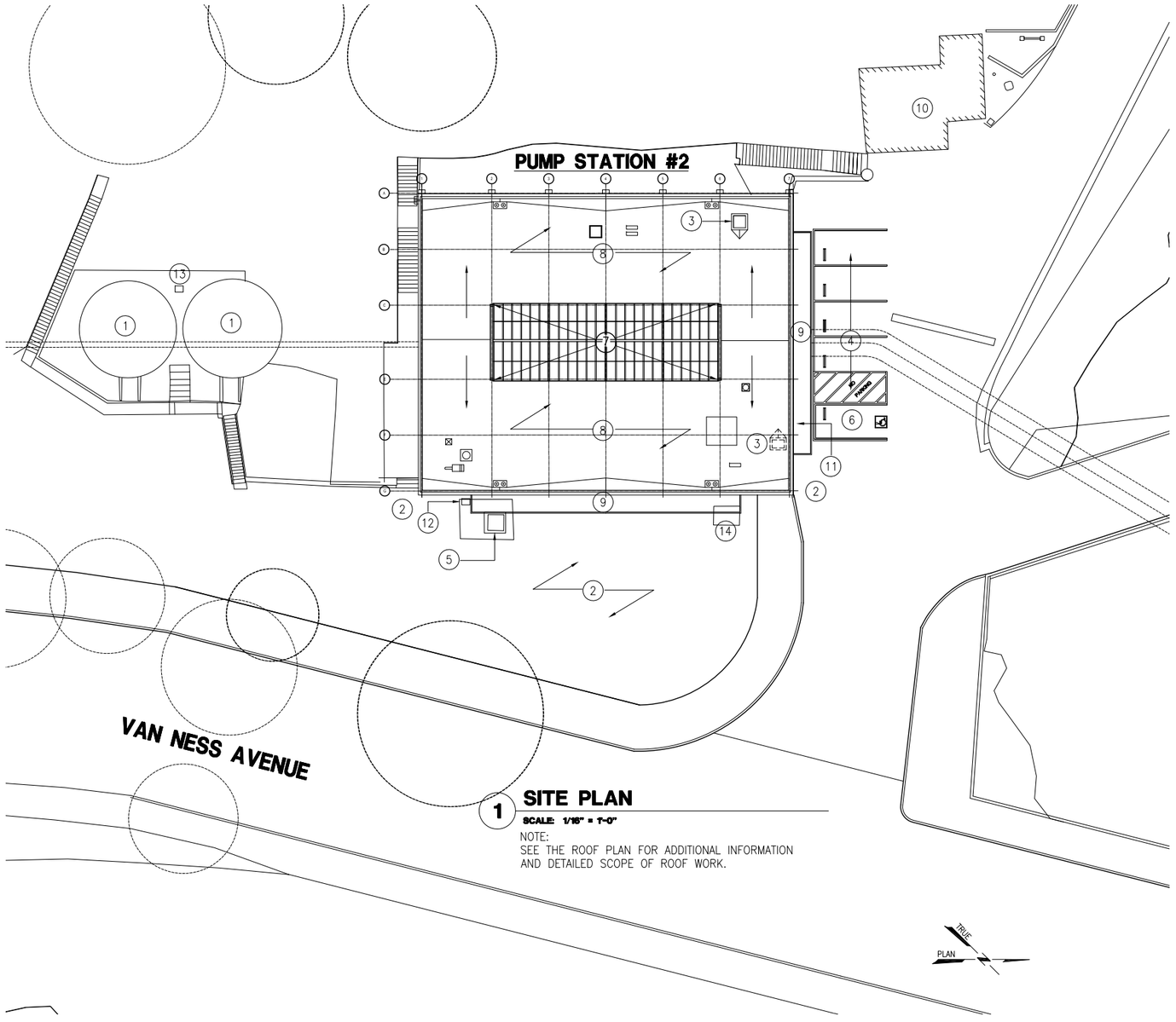
NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CHECKED / APPROVED	DRAWN	SCALE
		AS SHOWN
SECTION MANAGER	DESIGNED	DATE
APPROVED	APPROVED	
MANAGER, ENGINEERING MANAGEMENT BUREAU	MANAGER, CITY DISTRIBUTION DIVISION	

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	A0-1	E- XXXX	0

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4



1 SITE PLAN

SCALE: 1/16" = 1'-0"

NOTE:
SEE THE ROOF PLAN FOR ADDITIONAL INFORMATION AND DETAILED SCOPE OF ROOF WORK.

SITE PLAN WORK NOTES FOR DETAIL 1

1. TWO EXISTING WATER TANKS TO REMAIN AND BE PROTECTED.
2. RESTORE ALL EXISTING LANDSCAPING DISTURBED DURING CONSTRUCTION BACK TO ORIGINAL CONDITION AT THE CONCLUSION OF WORK.
3. REMOVE AND DISPOSE OF EXISTING ROOF HATCH AND ACCESS LADDER AND INSTALL A NEW ACCESS HATCH WITH LADDER AT NEW LOCATION (SEE THE ROOF PLAN)
4. GRIND AWAY EXISTING STRIPPING FOR EXISTING PARKING SPACES. APPLY CONCRETE SLURRY COAT AS REQUIRED TO COVER EXISTING MARKINGS AND AS REQUIRED TO FILL VOIDS AND DEPRESSIONS IN EXISTING SURFACE.
   RESTRIPE PARKING SPACES WITH 9' WIDE SPACES WITH WHEEL STOPS AND PROVIDE FOR A VAN ACCESSIBLE SPACE. SEE DETAILS 4 AND 5 ON A6-4.
5. TRANSFORMER LOCATION, SED
6. ACCESSIBLE PARKING SPACE, SEE DETAIL 4 ON SHEET A6-4.
7. REMOVE EXISTING SKYLIGHT AND CONCRETE SIDE WALLS AND INSTALL A NEW ALUMINUM "DOUBLE PITCH" SKYLIGHT AS SHOWN ON THESE DRAWINGS AND AS SPECIFIED. SEE DETAILS 1 AND 4 ON A6-3 FOR ADDITIONAL INFORMATION.
8. REMOVE AND DISPOSE OF ALL EXISTING ROOFING MATERIALS, SHEET METAL FLASHING AND ACCESSORIES AS REQUIRED FOR THE INSTALLATION OF A NEW ROOFING SYSTEM. PROVIDE AND INSTALL A NEW ROOFING SYSTEM, SHEET METAL FLASHING SYSTEM AND ACCESSORIES AS SHOWN ON THESE DRAWINGS AND AS SPECIFIED.
9. REMOVE, SALVAGE AND REINSTALL EXISTING CLAY ROOF TILES AS SPECIFIED AND AS REQUIRED FOR THE INSTALLATION OF A COMPLETE NEW CLAY TILE ROOFING SYSTEM. REPLACE BROKEN AND OTHERWISE UNUSABLE TILES WITH NEW ROOF TILES TO MATCH THE SIZE AND COLOR OF THE EXISTING TILES. REPLACE EXISTING GUTTERS WITH NEW COPPER GUTTERS TO MATCH PROFILE AND LOCATIONS OF EXISTING GUTTERS. SEE SPECIFICATION SECTION 07321 CLAY ROOF TILES FOR A DETAILED SCOPE OF WORK INCLUDING THE PERCENTAGE OF REPLACEMENT TILES REQUIRED IN THE CONTRACT..
10. EXISTING PARKING STRUCTURE FOR 3 VEHICLES TO REMAIN AND BE PROTECTED.
11. SEE DETAILS 6 AND 7 ON SHEET A-6.4 FOR TOW AWAY SIGN AND RESERVED PARKING SIGN. MOUNT SIGNS ON THE SIDE OF THE BUILDING. MARK LOCATIONS FOR CITY REPRESENTATIVE'S APPROVAL PRIOR TO MOUNTING SIGNS. MOUNT SIGNS USING STAINLESS STEEL FASTENERS.
12. PG&E GAS METER, SEE THE MECHANICAL/PLUMBING DRAWINGS.
13. SFWD METER, SEE THE MECHANICAL/PLUMBING DRAWINGS.
14. HATCH FOR SEWAGE HOLDING TANK, SEE THE MECHANICAL/PLUMBING DRAWINGS AND THE STRUCTURAL DRAWINGS.

CONTRACT NO. WD-2687

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY PUMPING STATION NO. 2 IMPROVEMENTS (2014)

SITE PLAN

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUILDING DESIGN & CONSTRUCTION DIVISION

PROJECT ARCHITECT: KENT FORD	DRAWN: KENT FORD
SECTION MANAGER: PETER WONG	DESIGNED: KENT FORD
DIVISION MANAGER: JULIA LAUE	CHECKED: PETER WONG

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

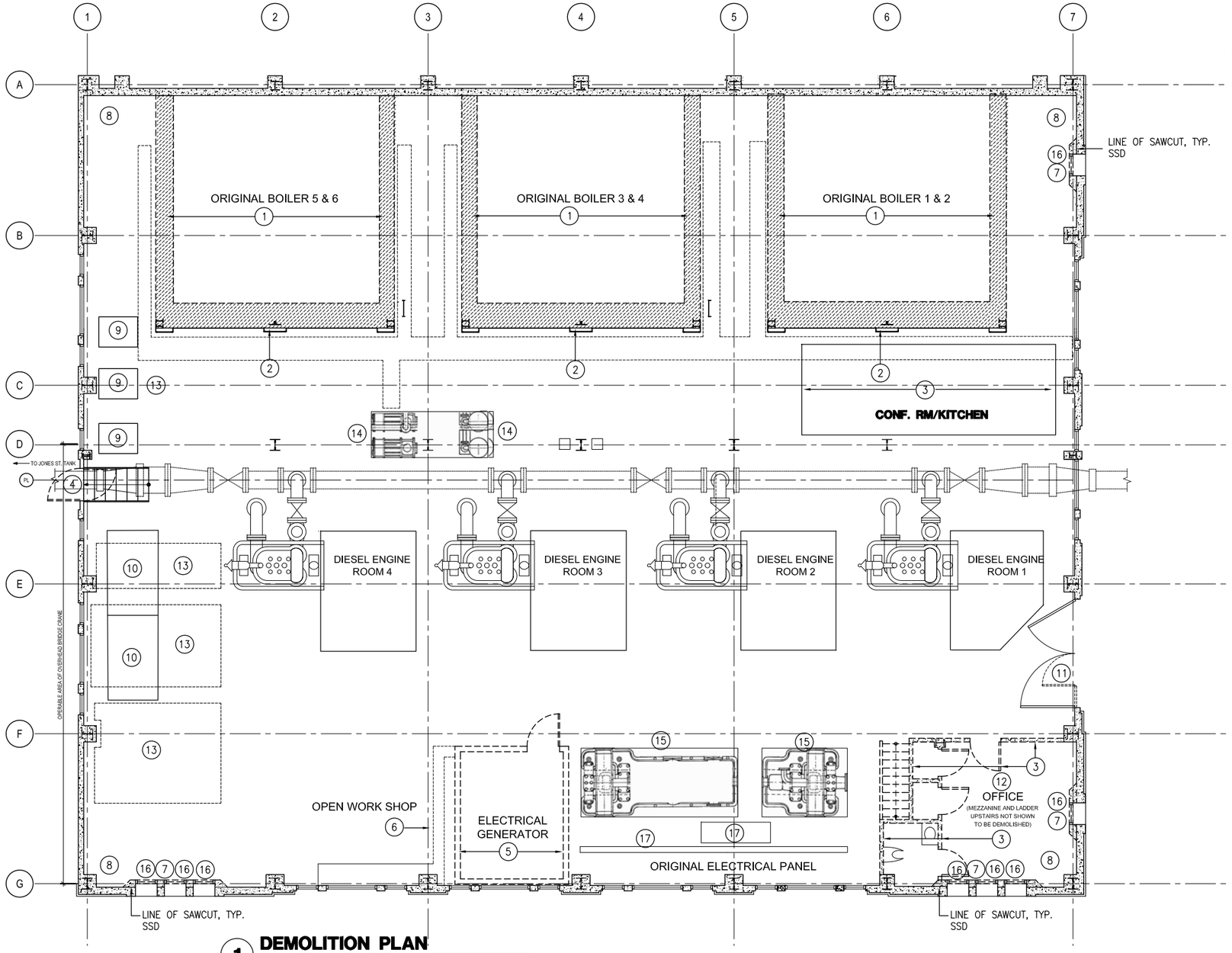
CHECKED / APPROVED	DRAWN	SCALE: AS SHOWN	
SECTION MANAGER	DESIGNED	DATE	
APPROVED	APPROVED		
MANAGER, ENGINEERING MANAGEMENT BUREAU	MANAGER, CITY DISTRIBUTION DIVISION		
SHEET: OF	PLAN NO.: A1-1	DRAWING NO.: E- XXXX	REVISION NO.: 0

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

LICENSED ARCHITECT
KENT PAUL FORD
C-15335
REN. 1/2017
STATE OF CALIFORNIA

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4



1 DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

NOTE;

1. SEE THE SPECIFICATIONS FOR HAZARDOUS MATERIALS ABATEMENT PROCEDURES AND REPORTS.
2. ALL EXISTING ITEMS NOT SHOWN TO BE DEMOLISHED OR RELOCATED SHALL REMAIN AND BE PROTECTED
3. SEE SPEC. #01010, 02051, 02111 AND 02112 FOR DEMOLITION WORK RELATED TO HISTORICAL EQUIPMENT.
4. ITEMS TO BE REMOVED AND DISPOSED OF SHOWN WITH DASHED LINE.

WORK NOTES

1. REMOVE AND DISPOSE OF EXISTING BOILERS, BOILER PIPING, MASONRY (FIRE BRICK) AND ALL OTHER MATERIALS INCIDENTAL TO THE EXISTING BOILER INSTALLATION AS SHOWN ON THESE DRAWINGS AND AS SPECIFIED HEREIN. SEE THE MECH/STRL DWGS.
2. REMOVE, SALVAGE AND REINSTALL (PER SPEC #02111) ORNAMENTAL FRONT FACADE OF HISTORIC BOILERS. DISCONNECT AND RELOCATE (IF REQUIRED) TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO THE SAME LOCATION. BOILER FACADE INCLUDES CONTROLS, GAUGES, TRIM, ETC. REMOVE AND DISPOSE OF EXISTING BOILERS SITUATED BEHIND ORNAMENTAL FASCADE INCLUDING BOILER STRUCTURAL STEEL FRAMING SYSTEM, FIRE BRICKS INCLUDING GLAZED FIRE BRICKS, BOILERS AND BOILER ACCESSORIES–SEE NOTE 1 ABOVE.
   INSTALL NEW CONCRETE WALL TO SUPPORT THE HISTORIC ORNAMENTAL FRONT FASCADE. SEE THE STRL. AND MECH. DWGS. FOR ADDITIONAL INFORMATION.
3. REMOVE AND DISPOSE OF EXISTING CONFERENCE ROOM/KITCHEN NEXT TO ORIGINAL BOILERS 1 & 2 AND REMOVE AND DISPOSE EXISTING OFFICE/MEZZANINE IN THE NORTH–EAST CORNER OF THE BUILDING INCLUDING ALL PARTITIONS, STAIR SYSTEMS, TOILET FIXTURES (SINK), MEZZANINE (ATTENDANT QUARTERS/AWING), PLUMBING SYSTEMS, UTILITIES/EQUIPMENT, ELECTRICAL SYSTEMS AND ALL OTHER EXISTING RELATED CONSTRUCTION. CAP ALL UTILITIES. SALVAGE EXISTING OFFICE/MEZZANINE WOOD TRIM PIECES FOR USE AS A TEMPLATE TO MATCH FOR THE FABRICATION OF NEW WD TRIM PIECES IN NEW OFFICE 103 –SEE THE INTERIOR ELEVATIONS.
4. REMOVE AND DISPOSE OF EXISTING DOOR. REPLACE WITH NEW DOOR–SEE THE DOOR SCHEDULE.
5. REMOVE AND DISPOSE OF EXISTING GENERATOR ROOM INCLUDING PARTITIONS, CEILING STRUCTURE, MECH/ELEC SYSTEMS AND OTHER RELATED ACCESSORIES AS REQUIRED FOR THE INSTALLATION OF A NEW GENERATOR AND GENERATOR ROOM INCLUDING NEW MECHANICAL/ELECTRICAL SYSTEMS (SMD–SED).
6. REMOVE, SALVAGE AND REINSTALL EXISTING WORK BENCH AFTER CONSTRUCTION OF NEW GENERATOR ROOM TO NEW LOCATION AT THE SOUTHEAST CORNER OF THE BUILDING–VERIFY EXACT LOCATION WITH CITY REPRESENTATIVE DURING CONSTRUCTION.
7. SAWCUT OFF PORTIONS OF THE EXISTING CONCRETE STRUCTURE AS REQUIRED TO INSTALL NEW CONCRETE SHEAR WALL (SSD) AND REMOVE EXISTING WINDOWS AS SCHEDULED FOR REPLACEMENT (SEE THE WINDOW SCHEDULE)
8. REMOVE (E) 1/2" THICK CEMENT PLASTER SKIM COAT ENTIRE SURFACE OF EXISTING CONCRETE WALLS AT LOCATIONS OF NEW STRUCTURAL SHEAR WALL CONSTRUCTION AND AT LOCATIONS OF NEW NEW BENT PLATES FOR COLUMNS AND WALL GIRTS (SSD). REMOVE CEMENT PLASTER SKIM COAT FROM ALL ROOF FRAMING STRUCTURAL "C" CHANNELS. REMOVE CEMENT PLASTER SKIM COAT AT LOCATIONS EXISTING STRUCTURAL STEEL WHERE REQUIRED FOR PROPER BOLTING AND/OR WELDING OF NEW STRL STL MEMBERS (SSD).
9. REMOVE, SALVAGE AND REINSTALL (PER SPEC# 02112) EXISTING THREE FEED PUMPS. DISCONNECT AND RELOCATE AS REQUIRED TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO SAME LOCATION AFTER THE COMPLETION OF THE STRUCTURAL WORK. SEE THE STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
10. REMOVE, SALVAGE AND REINSTALL (PER SPEC#02112) EXISTING TWO HEATERS. DISCONECT AND RELOCATE AS REQUIRED TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO SAME LOCATION AFTER THE COMPLETION OF THE STRUCTURAL WORK. SEE THE STRL. AND MECH. DWGS. FOR ADDITIONAL INFORMATION.
11. REMOVE, SALVAGE AND REINSTALL (PER SPEC#02112) EXISTING DOORS DURING CONSTRUCTION. PROVIDE TEMPORARY SECURITY ENTRANCE WITH LOCKING DEVICE TO BE USED THROUGHOUT THE WORK. REINSTALL EXISTING DOORS AT THE CONCLUSION OF THE WORK. PROVIDE AND INSTALL NEW DOOR HARDWARE AND DOOR ACCESSORIES AS SHOWN ON THESE DRAWINGS AND AS SPECIFIED. REFINISH EXISTING DOORS (PAINT) WITH COLOR AND PATTERN TO MATCH EXISTING.
12. SALVAGE TRIM PIECES: BASE, WALL & WINDOW TRIM TO BE USED AS TEMPLATE FOR FABRICATION OF NEW WOOD TRIM TO BE INSTALLED IN NEW OFFICE 103. (SEE THE INTERIOR ELEVATIONS AND ROOM FINISH SCHEDULE)
13. REMOVE, SALVAGE AND REINSTALL AT NEW INDICATED LOCATION (PER SPEC#02112) EXISTING PUMPS, CONDENSING UNIT AND MISC. EQUIPMENT IN PARTIAL BASEMENT. SEE THE STRL. AND MECH. DWGS.
14. REMOVE, SALVAGE AND REINSTALL (PER SPEC#02112) EXISTING OIL PUMPS. DISCONNECT AND RELOCATE AS REQUIRED TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO SAME LOCATION AFTER THE COMPLETION OF THE STRUCTURAL WORK. SEE THE MECH. AND STRL. DWGS FOR ADDITIONAL INFORMATION.
15. REMOVE, SALVAGE AND REINSTALL (PER SPEC#02112) EXISTING STEAM TURBINE, ELECTRICAL GENERATOR AND PUMP IMPELLER. DISCONNECT AND RELOCATE AS REQUIRED TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO INDICATED LOCATION AFTER THE COMPLETION OF THE STRUCTURAL WORK. SEE THE MECH. AND STRL. DWGS FOR ADDITIONAL INFORMATION.
16. REMOVE, SALVAGE AND REINSTALL INTERIOR EXISTING WINDOW TRIM. REINSTALL WINDOW TRIM AT SAME LOCATION AS EXISTING EXCEPT ON FACE OF NEW CONCRETE SHEAR WALL.
17. REMOVE, SALVAGE AND REINSTALL (PER SPEC#02112) HISTORIC ELECTRICAL PANEL BOARD. DISCONNECT AND RELOACTE (IF REQUIRED) TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO INDICATED LOCATION AFTER THE COMPLETION OF THE STRUCTURAL WORK. REMOVE, SALVAGE AND REINSTALL BACK TO INDICATED LOCATION (E) RHEOSTATS ON FLOOR. SEE THE STRL AND ELEC DWGS FOR DEMOLITION AND REINSTALLATION WORK.

TRUE PLANT

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

LICENSED ARCHITECT KENT PAUL FORD C-15335 REN. 1/2017 STATE OF CALIFORNIA

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4

CONTRACT NO. WD–2687

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUILDING DESIGN & CONSTRUCTION DIVISION

AUXILIARY WATER SUPPLY PUMPING STATION NO. 2 IMPROVEMENTS (2014)

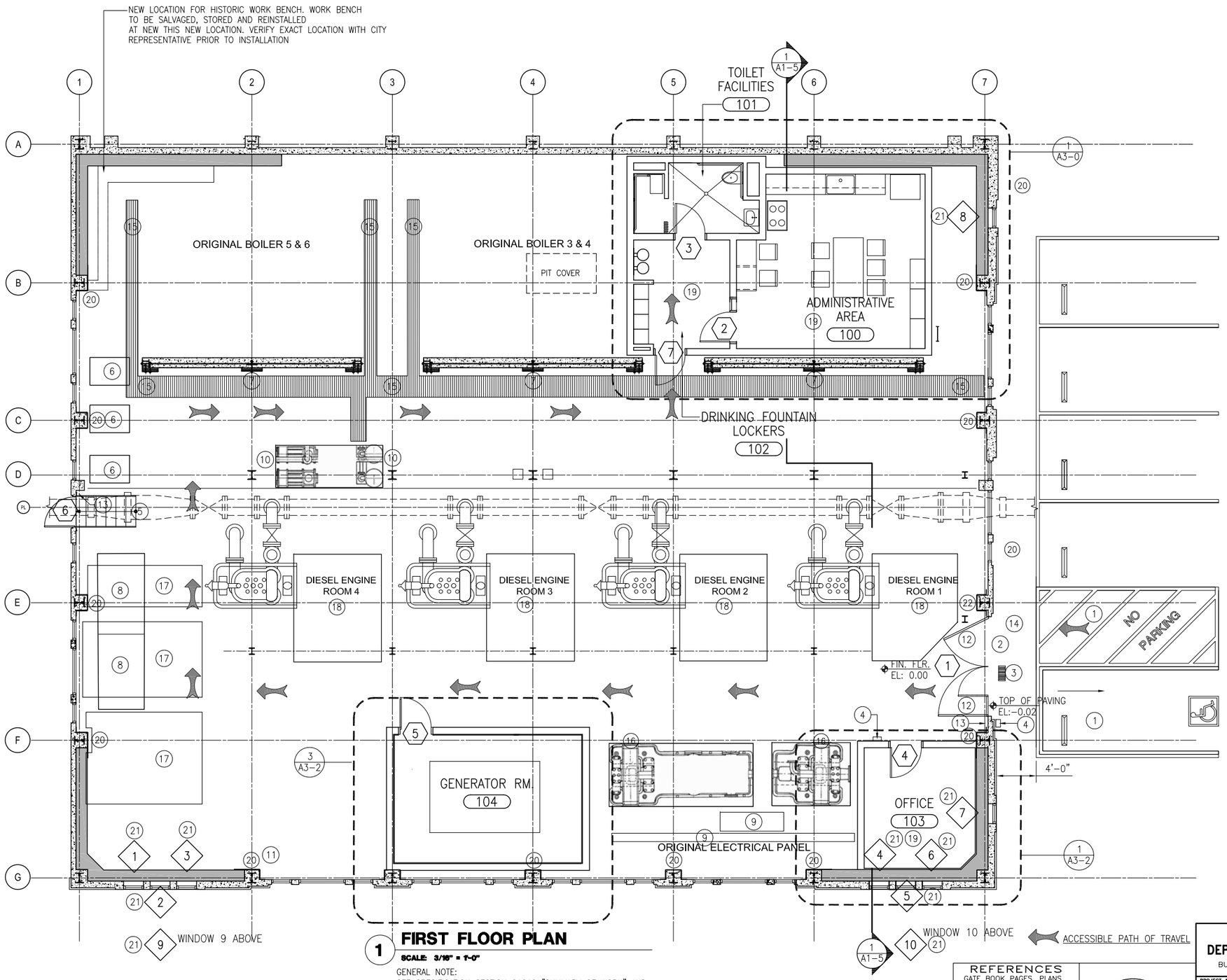
DEMOLITION PLAN

PROJECT ARCHITECT: KENT FORD	DRAWN: KENT FORD
SECTION MANAGER: PETER WONG	DESIGNED: KENT FORD
DIVISION MANAGER: JULIA LAUE	CHECKED: PETER WONG

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CHECKED / APPROVED	DRAWN		SCALE: AS SHOWN
SECTION MANAGER	DESIGNED		DATE
APPROVED: MANAGER, ENGINEERING MANAGEMENT BUREAU	APPROVED: MANAGER, CITY DISTRIBUTION DIVISION		
SHEET: OF	PLAN NO.: A1–2	DRAWING NO.: E– XXXX	REVISION NO.: 0



1 FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0"

GENERAL NOTE:
SEE SPECIFICATION SECTION 01010 "SUMMARY OF WORK" AND SPECIFICATION SECTION 02051 "SELECTIVE DEMOLITION" FOR ADDITIONAL INFORMATION.

FINISHED FLOOR ELEVATION OF 0.00 IS EQUAL TO 0.00 SAN FRANCISCO CITY DATUM

TRUE PLAN

WORK NOTES

1. VAN ACCESSIBLE PARKING SPACE, SEE DETAIL 4 ON A6-4. GRIND OFF EXISTING STRIPPING PATTERN. PAINT NEW PARKING PATERN AS SHOWN. SEE THE SITE PLAN AND THE ENGINEERING DRAWINGS FOR ADDITIONAL WORK IN THE PARKING AREA.
2. REPLACE 50 SF OF PAVING MATERIAL WITH NEW TO MATCH EXISTING IN FRONT OF DOOR No. 1 AT LOCATION DESIGNATED BY THE CITY REPRESENTATIVE.
3. REPLACE EXISTING GRATE COVER. REPLACEMENT GRATE COVER SHALL BE H20 WHEEL LOAD RATED 914 STAINLESS STEEL GRATE COVER. GRATE PATTERN TO RUN PERPENDICULAR TO PATH OF TRAVEL AND WITH GRATE OPENINGS NO GREATER THAN 1/2" IN WIDTH.
4. PROVIDE AND INSTALL A VERTICAL BAR TYPE ADA POWER OPERATOR DOOR DEVICE WITH BOTH HIGH/LOW PUSH BUTTONS (BOTH INSIDE AND OUTSIDE OF THE BUILDING AT LOCATIONS SHOWN). SEE THE DOOR SCHEDULE AND DOOR HARDWARE GROUPS.
5. EXISTING SHIPS LADDER TO REMAIN AND BE PROTECTED.
6. REMOVE, SALVAGE AND REINSTALL (PER SPEC# 02112) EXISTING THREE FEED PUMPS. DISCONNECT AND RELOCATE AS REQUIRED TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO SAME LOCATION AFTER THE COMPLETION OF THE STRUCTURAL WORK. SEE THE STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
7. REMOVE, SALVAGE AND REINSTALL (PER SPEC #02111) ORNAMENTAL FRONT FACADE OF HISTORIC BOILERS. DISCONNECT AND RELOCATE (IF REQUIRED) TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO SAME LOCATION. BOILER FASCADE INCLUDES CONTROLS, GAUGES, TRIM, ETC. REMOVE AND DISPOSE OF EXISTING BOILERS SITUATED BEHIND ORNAMENTAL FASCADE INCLUDING BOILER STRUCTURAL STEEL FRAMING SYSTEM, FIRE BRICKS INCLUDING GLAZED FIRE BRICKS, BOILERS AND BOILER ACCESSORIES. INSTALL NEW CONCRETE WALL TO SUPPORT ORNAMENTAL FRONT FASCADE. SEE THE STRL. AND MECH. DWGS. FOR ADDITIONAL INFORMATION.
8. REMOVE, SALVAGE AND REINSTALL (PER SPEC#02112) EXISTING TWO HEATERS. DISCONECT AND RELOCATE AS REQUIRED TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO SAME LOCATION AFTER THE COMPLETION OF THE STRUCTURAL WORK. SEE THE STRL. AND MECH. DWGS. FOR ADDITIONAL INFORMATION.
9. REMOVE, SALVAGE AND REINSTALL (PER SPEC#02112) HISTORIC ELECTRICAL PANEL BOARD. DISCONNECT AND RELOACTE (IF REQUIRED) TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO INDICATED LOCATION AFTER THE COMPLETION OF THE STRUCTURAL WORK. REMOVE, SALVAGE AND REINSTALL BACK TO INDICATED LOCATION (E) RHEOSTATS ON FLOOR. SEE THE STRL AND ELEC DWGS FOR DEMOLITION AND REINSTALLATION WORK.
10. REMOVE, SALVAGE AND REINSTALL (PER SPEC#02112) EXISTING OIL PUMPS. DISCONNECT AND RELOCATE AS REQUIRED TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO SAME LOCATION AFTER THE COMPLETION OF THE STRUCTURAL WORK. SEE THE MECH. AND STRL. DWGS FOR ADDITIONAL INFORMATION.
11. REMOVE, REINSTALL AND/OR REPLACE ELECTRICAL METERS AND PANELS THIS AREA. SEE THE ELECTRICAL DRAWINGS FOR SCOPE OF WORK. SEE THE STRUCTURAL DRAWINGS FOR PANEL SUPPORTS AND SCOPE OF WORK.
12. REMOVE, SALVAGE AND REINSTALL (PER SPEC#02112) EXISTING DOORS DURING CONSTRUCTION. PROVIDE TEMPORARY SECURITY ENTRANCE WITH LOCKING DEVICE TO BE USED THROUGHOUT THE WORK. REINSTALL EXISTING DOORS AT THE CONCLUSION OF THE WORK. PROVIDE AND INSTALL NEW DOOR HARDWARE AND DOOR ACCESSORIES AS SHOWN ON THESE DRAWINGS AND AS SPECIFIED. REFINISH EXISTING DOORS (PAINT) WITH COLOR AND PATTERN TO MATCH EXISTING.
13. SEE DETAIL 2 ON SHEET A5-3 FOR DOOR EXIT SIGNAGE. TEXT TO READ "EXIT"
14. SAWCUT EXISTING CONCRETE PAVING AS REQUIRED TO INSTALL THE NEW FOUNDATION SYSTEM (SSD). RESTORE PAVING BY INSTALLING A NEW 4" THICK CONCRETE SLAB ON GRAVEL BASE OVER COMPACTED SOIL AT LOCATIONS OF DEMOLOSHED PAVING SYSTEM. PAVING NOT TO EXCEED 2% IN BOTH DIRECTIONS.
15. REMOVE EXISTING RAISED FLOOR STEEL PLATES (AS INDICATED BY HATCH AREA ON FLOOR PLAN) AND REPLACE WITH NEW GALVANIZED STEEL COVER PLATES WITH RAISED CHECKERBOARD NON-SKID PATTERN TO MATCH EXISTING. FOR INFILL CONCRETE WORK AT EXISTING PIPE TRENCH, SEE THE STRUCTURAL DRAWINGS. PROVIDE CORROSIVE PROTECTION PAINT SYSTEM AS SPECIFIED & PROVIDE STAINLESS STEEL SCREWS AND ACCESSORIES.
16. REMOVE, SALVAGE AND REINSTALL (PER SPEC#02112) EXISTING STEAM TURBINE, ELECTRICAL GENERATOR AND PUMP IMPELLER. DICSONNECT AND RELOCATE AS REQUIRED TO PERFORM THE STRUCTURAL WORK AND REINSTALL BACK TO INDICATED LOCATION AFTER THE COMPLETION OF THE STRUCTURAL WORK. SEE THE MECH. AND STRL. DWGS FOR ADDITIONAL INFORMATION.
17. EXISTING PARTIAL BASEMENT (CONDENSATE PIT) TO BE FILLED IN FLUSH TO TOP OF EXISTING SLAB, SSD – PAINT TOP OF NEW CONCRETE TO MATCH AND REPAINT ALL PATCHED AREAS. REMOVE, SALVAGE AND REINSTALL AT NEW LOCATION (PER SPEC#02112) EXISTING PUMPS, CONDENSING UNIT AND MISC. EQUIPMENT FROM PARTIAL BASEMENT. SEE THE STRL. AND MECH. DWGS.
18. MODIFY EXISTING SOUND ENCLOSURES AS REQUIRED FOR THE INSTALLATION OF NEW BRACES TO REPLACE EXISTING BRACES BY ENLARGING THE PENETRATION (OPENING) FOR THE NEW STRUCTURAL SYSTEM, SEE THE STRUCTURAL, MECHANICAL AND FIRE PROTECTION DRAWINGS FOR ADDITIONAL INFORMATION/WORK SCOPE. (PATCH NEW LARGER OPENING TO MATCH EXISTING ADJACENT SURFACES AND PAINT TO MATCH)
19. LEVEL FLOOR AS REQUIRED FOR NEW FINISHES WITH LEVELING COMPOUND-SEE SPEC.#03541
20. SSD FOR BENT STL PLATE REINFORCEMENT AT (E) COL'S, TYPICAL.
21. REMOVE, SALVAGE AND REINSTALL INTERIOR EXISTING WINDOW TRIM. REINSTALL AT SAME LOCATION AS EXISTING EXECPT ON FACE OF NEW CONCRETE SHEAR WALL. SEE DETAIL 2 ON A6-9.

CONTRACT NO. WD-2687

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

LICENSED ARCHITECT KENT PAUL FORD C-15335 REN. 1/2017 STATE OF CALIFORNIA

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUILDING DESIGN & CONSTRUCTION DIVISION

PROJECT ARCHITECT KENT FORD	DRAWN KENT FORD
SECTION MANAGER PETER WONG	DESIGNED KENT FORD
DIVISION MANAGER JULIA LAUE	CHECKED PETER WONG

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

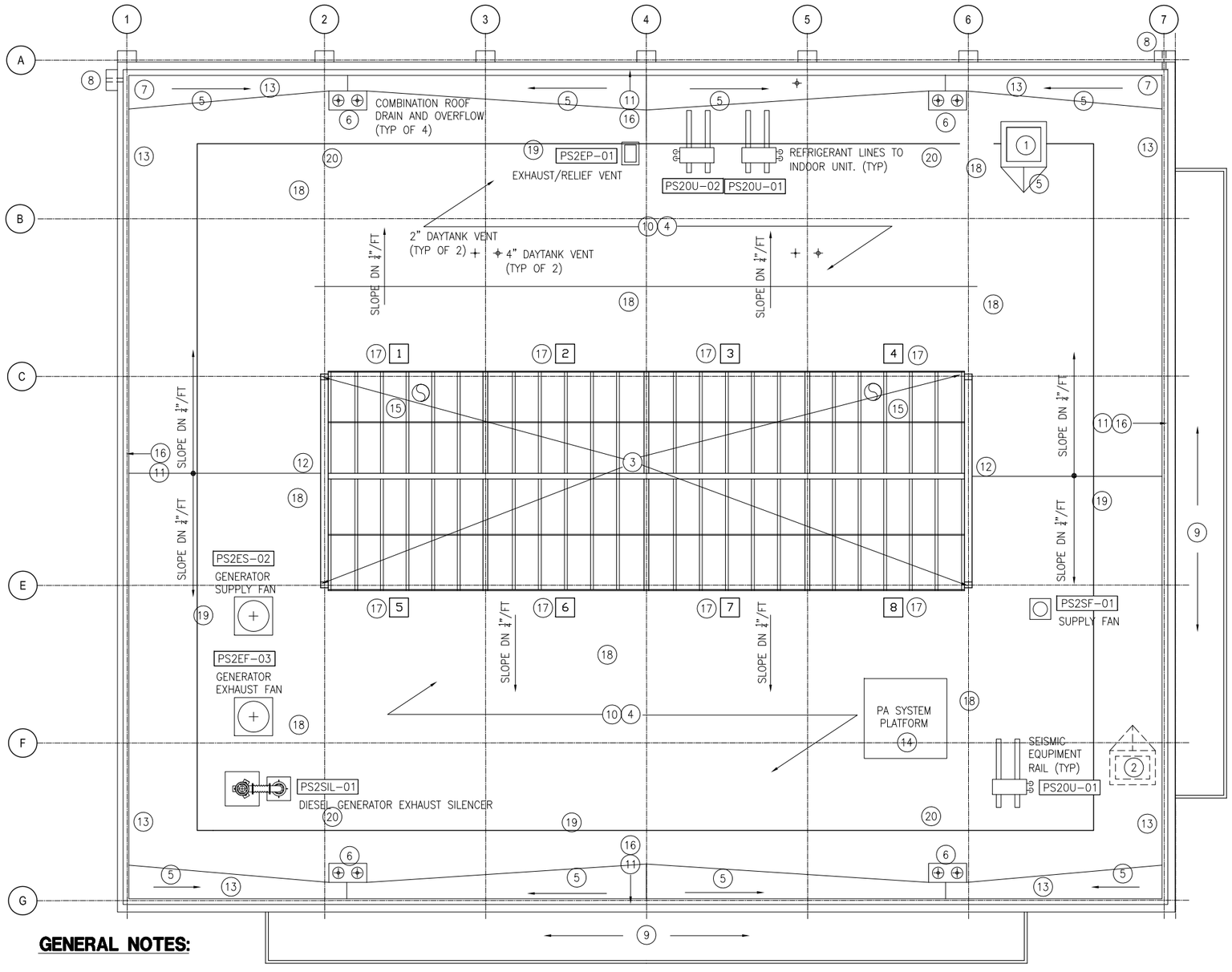
AUXILIARY WATER SUPPLY PUMPING STATION NO. 2 IMPROVEMENTS (2014)

FIRST FLOOR PLAN

CHECKED / APPROVED	DRAWN	SCALE AS SHOWN
SECTION MANAGER	DESIGNED	DATE
APPROVED MANAGER, ENGINEERING MANAGEMENT BUREAU	APPROVED MANAGER, CITY DISTRIBUTION DIVISION	

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	A1-3	E- XXXX	0

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4



GENERAL NOTES:

1. CONTRACTOR TO COORDINATE NEW ROOF INSTALLATION WITH ALL OTHER ROOF RELATED WORK INCLUDING NEW ROOF PENETRATIONS, MECHANICAL, ELECTRICAL, AND STRUCTURAL WORK.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO REVIEW ROOF IN DETAIL TO ASSURE THAT ITEMS NOT SPECIFICALLY NOTED OR DETAILED, BUT REQUIRED, FOR A COMPLETE AND PROFESSIONAL ROOFING INSTALLATION, ARE PROVIDED. ITEMS NOT SPECIFICALLY NOTED BUT IDENTIFIED IN LIKE, TYPICAL, OR SIMILAR IN FASHION, REMAIN THE RESPONSIBILITY OF THE CONTRACTOR AND ARE PART OF THE SCOPE OF WORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A COMPLETE ROOF SYSTEM AND SUBMISSION OF BIDS CONFIRMS THE UNDERSTANDING.
3. REPLACE ALL SHEET METAL PERIMETER FLASHING SYSTEMS WITH NEW FLASHING SYSTEMS AS SPECIFIED AND AS SHOWN ON THESE DRAWINGS. USE COPPER FLASHING SYSTEMS AT CLAY TILE ROOF REPLACEMENT. GALVANIZED STEEL SHEET METAL FLASHING SYSTEMS ARE TO BE USED AT THE MAIN BUILDING ROOF.
4. ALL SHEET METAL WORK TO BE PERFORMED BY CERTIFIED SHEET METAL WORKER. ALL SHEET METAL WORK TO BE PERFORMED IN COMPLIANCE WITH SMACNA STANDARDS.
5. ALL MECHANICAL WORK TO BE PERFORMED BY CERTIFIED MECHANICAL CONTRACTOR.
6. ALL ELECTRICAL WORK TO BE PERFORMED BY CERTIFIED ELECTRICIAN. CONNECTION AND DISCONNECTION OF MECHANICAL EQUIPMENT AS REQUIRED FOR INSTALLATION IS INCLUDED IN THE WORK.

1 ROOF PLAN

SCALE: 3/16" = 1'-0"

TRUE PLANT

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WORK NOTES

1. INSTALL NEW ROOF HATCH AT LOCATION SHOWN AND AS SPECIFIED. SEE DETAIL 1, 3 & 4 ON A6–7.
2. REMOVE AND DISPOSE OF EXISTING ROOF HATCH AND ACCESS LADDER–PATCH OPENING (SSD).
3. REMOVE EXISTING SKYLIGHT INCLUDING SURROUNDING CONSTRUCTION INCLUDING ROOF TOP END (SIDE WALL) CONCRETE CONSTRUCTION AS REQUIRED TO INSTALL A NEW ALUMINUM "DOUBLE PITCH" SKYLIGHT AS SHOWN ON THESE DRAWINGS AND AS SPECIFIED. SEE DET. 1, 2 AND 4 ON A6–3 FOR ADDITIONAL INFORMATION.
4. REMOVE AND DISPOSE OF EXISTING ROOFING SYSTEM AND ROOF TOP INSULATION. PROVIDE AND INSTALL A NEW ROOFING AND SHEET METAL FLASHING SYSTEM AS SHOWN ON THESE DRAWINGS AND AS SPECIFIED.
5. INSTALL TAPERED RIGID INSULATION "CRICKETS" AT ¼" PER FOOT SLOPE.
6. REMOVE EXISTING ROOF DRAINS WITH PIPING SYSTEM AND INSTALL NEW ROOF DRAINS/OVERFLOW DRAIN AND PIPING SYSTEM WITH STRAINERS AT NEW LOCATIONS SHOWN–SEE THE MECHANICAL DRAWINGS AND DETAILS 4 & 5 ON A6–2.
7. REMOVE EXISTING SCUPPERS AND PATCH OPENING (FILL WITH GROUT FLUSH AT BOTH SIDES OF PARAPET WITH FINISH AND TEXTURE TO MATCH EXISTING)
8. REMOVE COLLECTOR HEAD AND DOWNSPOUT TO STORM SEWER PIPE 6" BELOW GRADE. SEAL/CAP EXISTING DRAIN PIPE BELOW GRADE. SEE THE MECHANICAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
9. REMOVE, SALVAGE AND REINSTALL EXISTING CLAY ROOF TILES AS SPECIFIED AND AS REQUIRED FOR A COMPLETE ROOFING SYSTEM. REPLACE BROKEN AND OTHERWISE NOT USEABLE TILES WITH NEW ROOF TILES TO MATCH THE SIZE AND COLOR OF THE EXISTING TILES. REPLACE ALL EXISTING GUTTERS AND DRAINAGE SYSTEM WITH NEW COPPER GUTTERS AND DRAINAGE SYSTEM TO MATCH PROFILE AND LOCATIONS OF EXISTING. SLOPE GUTTERS AT ¼"/FT. SEE SPECIFICATION SECTION 07321 CLAY ROOF TILES FOR A DETAILED SCOPE OF WORK AND QUANTITIES OF ROOF TILE TO BE REPLACED AND SEE THE MECHANICAL DRAWINGS.
10. SEE DETAILS 1 THROUGH 8 ON SHEET A6–2 FOR DETAILS AT ROOF PENETRATIONS. SEE THE MECHANICAL DRAWINGS FOR OTHER RELATED DETAILS, QUANTITIES AND LOCATIONS OF ROOF PENETRATIONS, CURBS AND OTHER MISC. EQUIPMENT. SEE DETAIL 1 ON A6–4 FOR GUY WIRE SUPPORT AT GENERATOR EXHAUST STACK.
11. SEE DETAILS 3 ON SHEET A6–3 FOR DETAIL AT EXISTING PARAPET
12. SEE DETAILS 1 ON SHEET A6–3 FOR DETAIL AT NEW SKYLIGHT SIDEWALL. NEW SIDEWALL PROFILE TO MATCH PROFILE OF EXISTING SIDEWALL.
13. SEE DETAIL 9 ON A6–2 FOR SHEET METAL FLASHING DETAIL AT STRUCTURAL STEEL PARAPET SUPPORTS. SEE THE STRL DWGS FOR QUANTITIES/LOCATIONS OF PARAPET SUPPORTS.
14. PROVIDE AND INSTALL A ROOF PLATFORM FOR THE PUBLIC ADDRESS SYSTEM (ADDRESS SYSTEM TO BE INSTALLED BY OTHERS) SEE DETAIL 5 ON A6–7 FOR EQUIPMENT PLATFORM DETAIL.
15. SEE THE MECHANICAL DRAWINGS FOR ENGINE EXHAUST STACK PENETRATIONS THROUGH THE SKYLIGHT. AT LOCATIONS OF EXHAUST STACK PENETRATIONS PROVIDE AN ALUMINUM BLANK PANEL IN LIEU OF GLASS WITH OPENING AS REQUIRED FOR DIAMETER OF EXHAUST STACK. SEE DETAIL 8/A6.4 FOR FLASHING DETAIL.
16. APPLY A URETHANE PAINT SYSTEM TO THE TOP AND INSIDE (ROOF SIDE) SURFACE OF THE EXISTING PARAPET.
17. PROVIDE AND INSTALL 8 NEW LOUVERS. SEE THE SWCHEDULE FOR LOUVER REPLACEMENT AND THE SPECIFICATIONS.
18. PROVIDE AND INSTALL 800 SQUARE FEET OF TRAFFIC PADS AS SHOWN–SEE THE SPECIFICATIONS.
19. PROVIDE AND INSTALL A 4" WIDE SOLID BRIGHT YELLOW LINE SIX FEET IN FROM THE PERIMETER OF THE BUILDING. PROVIDE AND INSTALL FIVE 18" X 18" ALUMINUM SIGNS. MOUNT EACH OF FOUR SIGNS TO THE INSIDE FACE OF THE PARAPET WITH STAINLESS STEEL SCREWS AND ONE SIGN ON THE PARAPET NEAR THE ROOF HATCH. MARK SIGN LOCATIONS FOR APPROVAL PRIOR TO INSTALLATION. EACH SIGN TO READ "STAY BEHIND LINE – DO NOT APPROACH WITHIN 6 FEET OF ROOF EDGE UNLESS TIED OFF" SUBMIT SIGN LAYOUT FOR APPROVAL–SEE THE SPECS.
20. PROVIDE AND INSTALL FOUR ANCHOR POINTS AND TWO LANYARDS – SEE SPEC "ROOF ACCESSORIES" FOR DESCRIPTION OF ANCHOR POINT AND LANYARDS. MARK LOCATIONS FOR RE APPROVAL PRIOR TO INSTALLATION. SEE DETAIL 1/A6–2 SIM. FOR FLASHING AT ANCHOR POINTS.

DEMOLITION REQUIREMENTS

1. THE CONTRACTOR IS REQUIRED TO CONFIRM ALL EXISTING CONDITIONS. NOTIFY THE THE CITY IMMEDIATELY OF ANY DEVIATIONS OR DISCREPANCIES. DO NOT PROCEED WITH THE AFFECTED WORK UNTIL THE DEVIATIONS OR DISCREPANCIES ARE RESOLVED.
2. DEMOLITION WORK INCLUDES REMOVAL OF EXISTING ROOFING SYSTEM INCLUDING EXISTING FLASHING, MECHANICAL SYSTEMS, ELECTRICAL SYSTEMS AND ALL OTHER ROOF TOP ITEMS AS SHOWN AND AS REQUIRED FOR INSTALLATION OF THE NEW ROOFING SYSTEM. (SMD, SED AND SSD) WORK IS NOT LIMITED TO WHAT IS SHOWN ON THE DRAWINGS. THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL SCOPE OF WORK REQUIRED. IT IS THE CONTRACTORS RESPONSIBILITY TO REVIEW CONDITIONS TO IDENTIFY ANY DISCREPANCIES OR UNIDENTIFIED SCOPE OF WORK. NOTIFY THE CITY REPRESENTATIVE OF ALL EXISTING CONSTRUCTION NOT SPECIFICALLY NOTED ON THE PLANS.
3. CONDUCT OPERATIONS TO PREVENT DAMAGE TO EXISTING HISTORIC FABRIC, ADJACENT BUILDINGS, STRUCTURES AND EQUIPMENT SCHEDULED TO REMAIN, OR OTHER FACILITIES.
4. PROTECT FROM DAMAGE ALL MATERIALS, CONSTRUCTION, UTILITIES, & OTHER ITEMS AND APPURTENANCES NOT SCHEDULED FOR DEMOLITION. COORDINATE ALL WORK TO ENSURE CONSTRUCTION SEQUENCING IS ACCOMPLISHED IN A TIMELY AND EFFICIENT MANNER.
5. USE TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR TO THE LOWEST LEVEL OF AIR POLLUTION. COMPLY WITH ALL PERTINENT GOVERNMENTAL REGULATIONS AND BAY AREA AIR QUALITY MANAGEMENT DISTRICT REQUIREMENTS.
6. KEEP CONSTRUCTION AREAS BROOM CLEAN AT ALL TIMES. CLEAN ALL DUST, DIRT, & DEBRIS CAUSED BY DEMOLITION OPERATIONS DURING RE-ROOFING AND PRIOR TO LEAVING SITE.
7. WATER TEST ALL ROOF DRAINS, GUTTERS & LEADERS, INCLUDING COLLECTION LATERAL & CLEAR ANY BLOCKAGE THAT MIGHT OCCUR, MECHANICALLY REINSTALL STRAINERS AFTER RE-ROOFING WORK, TYP.

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

LICENSED ARCHITECT KENT PAUL FORD C-15335 REN. 1/2017 STATE OF CALIFORNIA

CONTRACT NO. WD–2687

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUILDING DESIGN & CONSTRUCTION DIVISION

PROJECT ARCHITECT KENT FORD	DRAWN KENT FORD
SECTION MANAGER PETER WONG	DESIGNED KENT FORD
DIVISION MANAGER JULIA LAUE	CHECKED PETER WONG

NO.	DATE	DESCRIPTION	BY	APPR'D
		REVISIONS		

AUXILIARY WATER SUPPLY PUMPING STATION NO. 2 IMPROVEMENTS (2014)

ROOF PLAN

CHECKED / APPROVED		DRAWN	SCALE AS SHOWN
SECTION MANAGER		DESIGNED	DATE
APPROVED		APPROVED	
MANAGER, ENGINEERING MANAGEMENT BUREAU		MANAGER, CITY DISTRIBUTION DIVISION	
SHEET OF	PLAN NO. A1–4	DRAWING NO. E– XXXX	REVISION NO. 0

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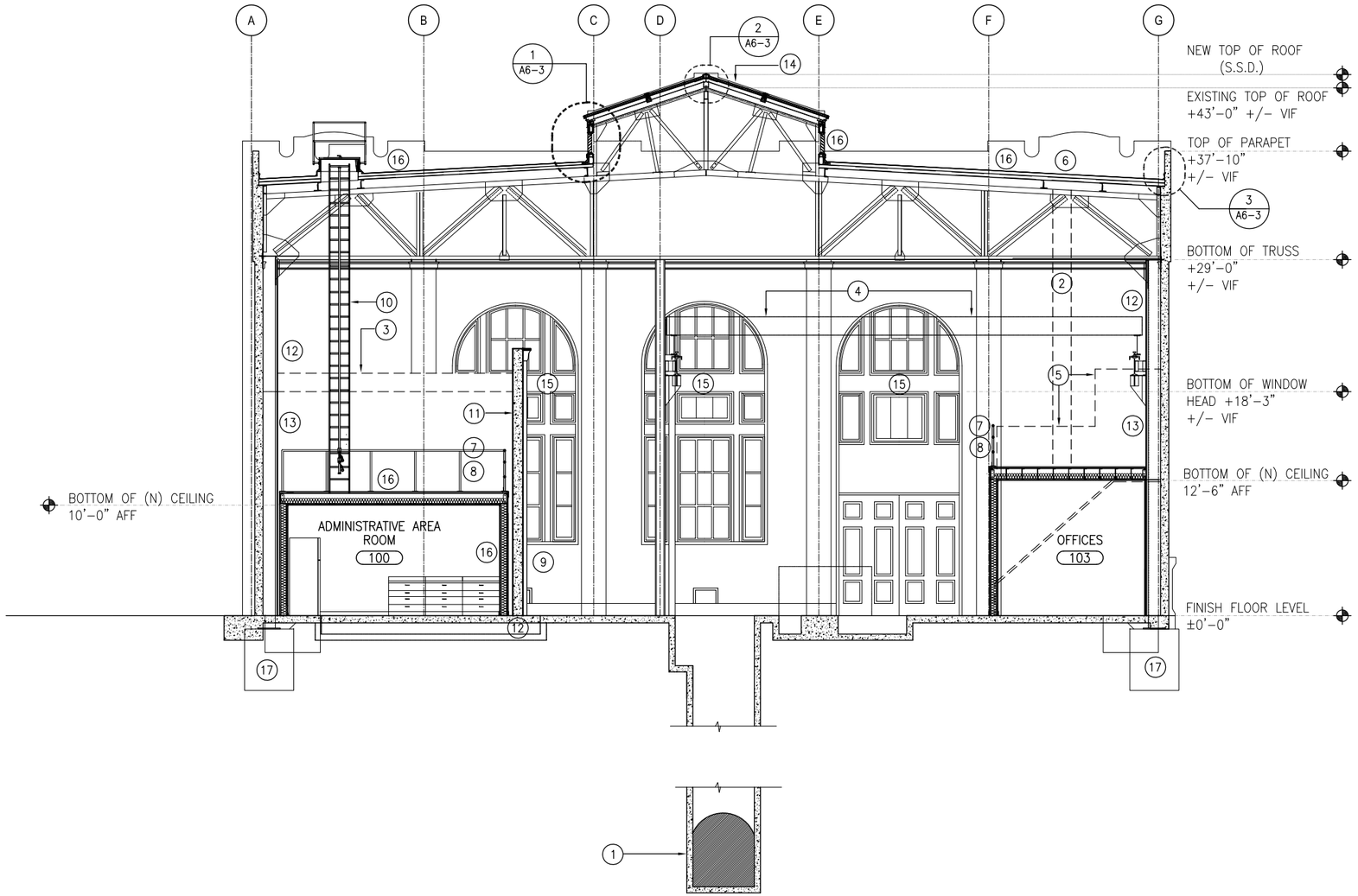

1 BUILDING SECTION

SCALE: 3/16" = 1'-0"

FINISH FLOOR LEVEL 0.00 IS EQUAL TO SAN FRANCISCO CITY DATUM 0'-0"

WORK NOTES

1. EXISTING SEA WATER INTAKE TUNNEL
2. REMOVE EXISTING LADDER TO ROOF HATCH AND REPLACE WITH NEW LADDER AND FALL SAFETY DEVICE AS SHOWN ON THESE DRAWINGS AND AS SPECIFIED. SEE NOTE 10 BELOW AND DETAILS 1,2 AND 3 ON A6.5.
3. REMOVE AND DISPOSE OF EXISTING BOILERS AND RELATED EXISTING CONSTRUCTION. (SEE THE DEMOLITION PLAN A1-2)
4. EXISTING BRIDGE CRANE TO REMAIN AND BE PROTECTED – SSD FOR SCOPE OF WORK.
5. REMOVE AND DISPOSE OF OFFICE, STAIRS, MEZZANINE INCLUDING ALL WALL CONSTRUCTION, MECHANICAL AND ELECTRICAL SYSTEMS AND ALL OTHER EXISTING CONSTRUCTION AS SHOWN ON THE DEMOLITION PLAN.
6. REMOVE AND DISPOSE OF EXISTING ROOF HATCH AND INSTALL A NEW ACCESS HATCH WITH LADDER AT NEW LOCATION SHOWN ON THE ROOF PLAN, SEE DETAILS 1, 3 AND 4 ON A6-7. PATCH ABANDONED ROOF OPENING-SSD
7. PROVIDE AND INSTALL 42" HIGH 1 ½" DIAMETER STEEL TUBE GUARDRAIL ON ALL 4 SIDES ON TOP OF OF ADMINISTRATIVE AREA PLATFORM (ROOMS 100, 101 & 102) AND ON THE WEST AND SOUTH SIDES OF OFFICE ROOM 103.
8. SEE DETAILS 2 ON A-6.5 SIM FOR GUARDRAIL DETAIL. PROVIDE EQUALLY SPACED 1 ½" (OD) DIAMETER VERTICAL PIPE RAIL POSTS AT 48" MAX. (SEE THE STRUCTURAL DRAWINGS FOR POST MOUNTING DETAIL AT BASE AND FOR POST LOCATIONS)
9. ORNAMENTAL FRONT FASCADE OF HISTORIC BOILERS TO BE SALVAGED, PROTECTED (RELOCATED AND REINSTALLED IF REQUIRED) TO PERFORM THE STRUCTURAL WORK. BOILER FASCADE INCLUDES CONTROLS, GAUGES, TRIM, ETC. REMOVE AND DISPOSE OF EXISTING BOILERS SITUATED BEHIND ORNAMENTAL FASCADE INCLUDING BOILER STRUCTURAL STEEL FRAMING SYSTEM, FIRE BRICKS INCLUDING GLAZED FIRE BRICKS, BOILERS AND BOILER ACCESSORIES. INSTALL NEW CONCRETE WALL TO SUPPORT ORNAMENTAL FRONT FASCADE. SEE THE STRL. AND MECH. DWGS. FOR ADDITIONAL INFORMATION.
10. PROVIDE NEW LADDER EXTENDING FROM THE TOP OF ADMINISTRATIVE AREA PLATFORM TO ROOF ABOVE, SEE THE SPECS, STRUCTURAL DRAWINGS AND SHEET A6-7.
11. NEW CONCRETE SUPPORT WALL WITH FOUNDATION- SEE THE STRUCTURAL DRAWINGS.
12. SEE THE STRUCTURAL DRAWINGS FOR NEW FOUNDATION WORK AND LOCATIONS OF NEW SHEAR WALL CONSTRUCTION.
13. SEE THE DEMOLITION PLAN AND FLOOR PLAN FOR ADDITIONAL NOTES PERTAINING TO THE STRUCTURAL SCOPE OF WORK.
14. REMOVE EXISTING SKYLIGHT AND INSTALL NEW ALUMINUM "DOUBLE PITCH" SKYLIGHT AT NEW TOP OF RIDGE AS SHOWN AND AS SPECIFIED. SEE DETAILS 1 AND 4 ON A6-3 FOR ADDITIONAL INFORMATION.
15. AT EXISTING WINDOWS ON NORTH AND EAST ELEVATIONS, CUT SLOTS IN EXISTING TRIM AND REMOVE PORTIONS AS REQUIRED TO INSTALL THE NEW STRUCTURAL STEEL SYSTEM. CAULK, PATCH AND PAINT TO MATCH EXISTING WOOD TRIM AT LOCATIONS OF NEW WORK.
16. ALL WOOD (PLYWOOD) USED IN EXTERIOR CONSTRUCTION SHALL BE PRESERVATIVE-TREATED WOOD. ALL WOOD USED IN THE INSTALLATION OF THE NEW ROOF SHALL ALSO BE FIRE RETARDANT TREATED WOOD AS WELL AS PRESERVATIVE-TREATED WOOD. ALL WOOD (PLYWOOD) USED IN INTERIOR CONSTRUCTION SALLL BE FIRE RETARDANT TREATED. SEE THE SPECIFICATIONS.
17. SEE THE STRUCTURAL DRAWINGS FOR FOUNDATION AND STRUCTURAL IMPROVEMENT WORK.

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

LICENSED ARCHITECT KENT PAUL FORD C-15335 REN. 1/2017 STATE OF CALIFORNIA

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ENGINEERING MANAGEMENT BUREAU

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUILDING DESIGN & CONSTRUCTION DIVISION

AUXILIARY WATER SUPPLY PUMPING STATION NO. 2 IMPROVEMENTS (2014)

BUILDING SECTION

PROJECT ARCHITECT: KENT FORD	DRAWN: KENT FORD
SECTION MANAGER: PETER WONG	DESIGNED: KENT FORD
DIVISION MANAGER: JULIA LAUE	CHECKED: PETER WONG

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CHECKED / APPROVED	DRAWN	SCALE: AS SHOWN
SECTION MANAGER	DESIGNED	DATE
APPROVED: MANAGER, ENGINEERING MANAGEMENT BUREAU	APPROVED: MANAGER, CITY DISTRIBUTION DIVISION	

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	A1-5	E- XXXX	0

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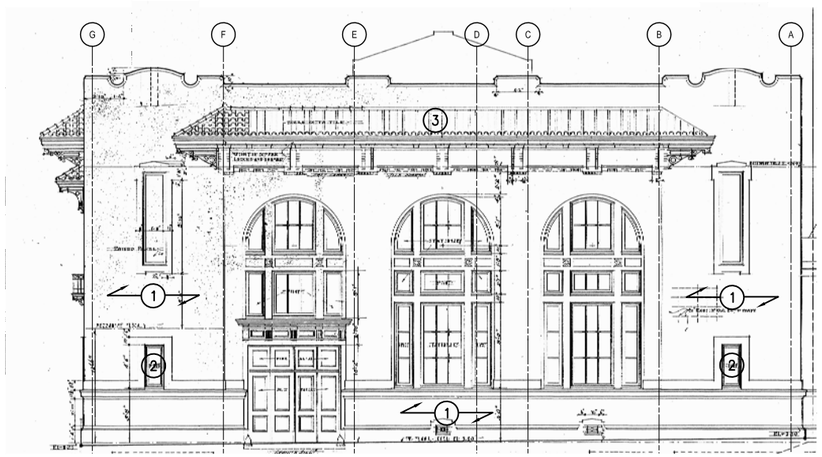
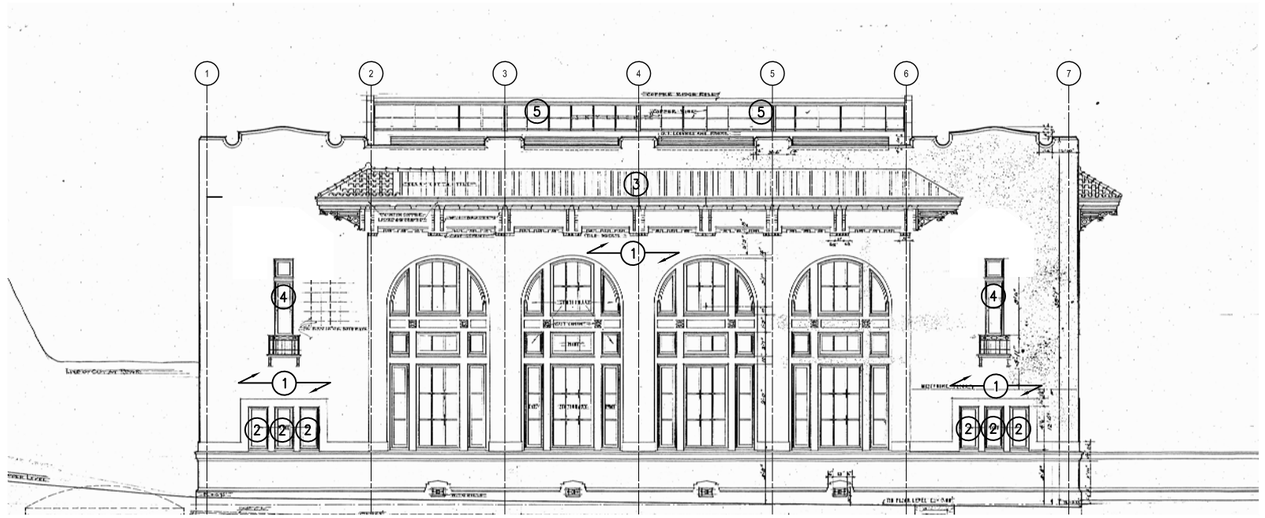


1 NORTH EXTERIOR ELEVATION

SCALE: 1/8" = 1'-0"



2 EAST EXTERIOR ELEVATION

SCALE: 1/8" = 1'-0"

WORK NOTES

1. PAINT ALL EXTERIOR BUILDING SURFACES WITH COLORS TO MATCH EXISTING TO THE FULLEST EXTENT POSSIBLE IN CONFORMANCE WITH SPECIFICATION SECTION 09910, "PAINTING"
2. REPLACE EIGHT EXISTING STEEL WINDOWS (TYPE A) WITH NEW METAL CLAD WINDOWS, SEE THE WINDOW SCHEDULE AND SPECIFICATION SECTION 08512 METAL CLAD WOOD WINDOWS. PAINT THE CONCRETE SHEAR WALL BEHIND THE WINDOWS FLAT BLACK.
3. REMOVE, SALVAGE AND REINSTALL EXISTING CLAY ROOF TILES AS SPECIFIED AND AS REQUIRED FOR A COMPLETE ROOFING SYSTEM. REPLACE BROKEN AND OTHERWISE NOT USEABLE TILES WITH NEW ROOF TILES TO MATCH THE SIZE AND COLOR OF THE EXISTING TILES. SEE SPECIFICATION SECTION 07321 CLAY ROOF TILES FOR A DETAILED SCOPE OF WORK.
4. REPLACE TWO EXISTING STEEL WINDOWS (TYPE B) WITH NEW METAL CLAD WINDOWS, SEE THE WINDOW SCHEDULE AND SPECIFICATION SECTION 08512, METAL CLAD WOOD WINDOWS. PAINT THE CONCRETE SHEAR WALL BEHIND THE WINDOWS FLAT BLACK.
5. SEE THE ROOF PLAN AND BUILDING SECTIONS FOR WORK AT NEW SKYLIGHT.

REFERENCES
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GATE BOOK PAGES NO.

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REN. 1/2017
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AUXILIARY WATER SUPPLY PUMPING STATION
NO. 2 IMPROVEMENTS (2014)

EXTERIOR ELEVATIONS

PROJECT ARCHITECT: KENT FORD	DRAWN: KENT FORD
SECTION MANAGER: PETER WONG	DESIGNED: KENT FORD
DIVISION MANAGER: JULIA LAUE	CHECKED: PETER WONG

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CHECKED / APPROVED	DRAWN	SCALE: AS SHOWN	
SECTION MANAGER	DESIGNED	DATE	
APPROVED: MANAGER, ENGINEERING MANAGEMENT BUREAU	APPROVED: MANAGER, CITY DISTRIBUTION DIVISION		
SHEET: OF	PLAN NO.: A1-6	DRAWING NO.: E- XXXX	REVISION NO.: 0

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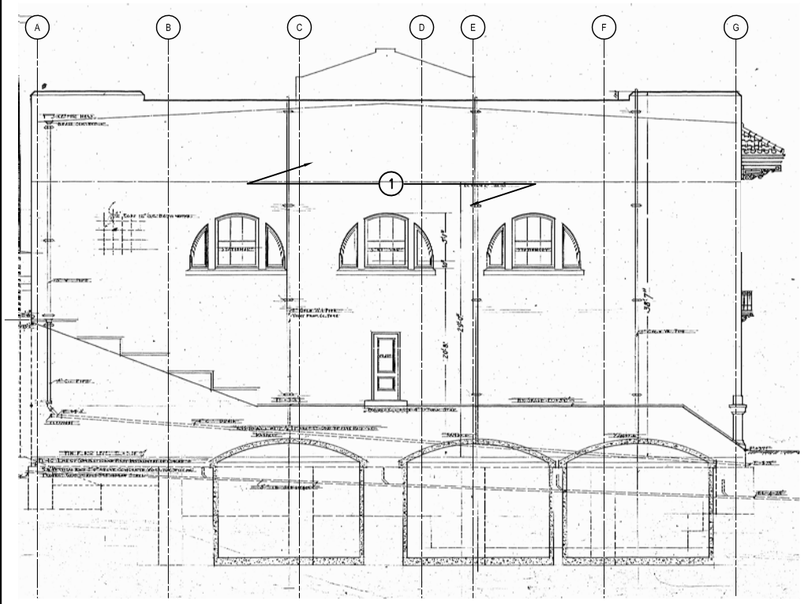
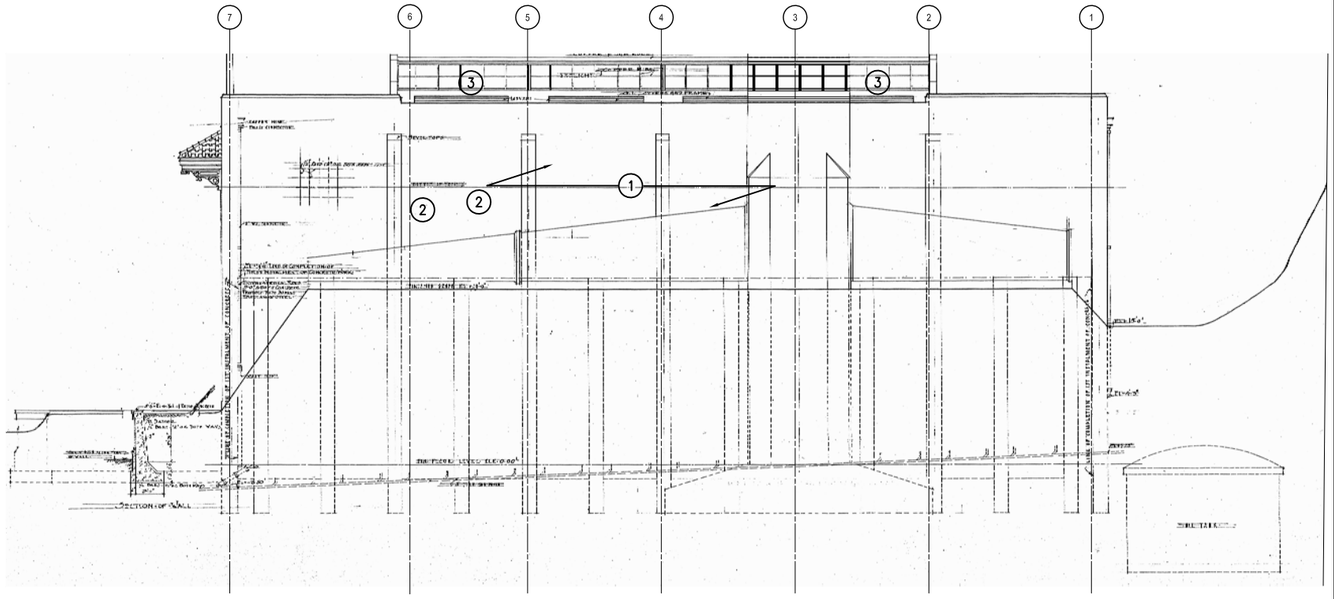


1 SOUTH EXTERIOR ELEVATION

SCALE: 1/8" = 1'-0"



2 WEST EXTERIOR ELEVATION

SCALE: 1/8" = 1'-0"

WORK NOTES

1. PAINT ALL EXTERIOR BUILDING SURFACES WITH COLORS TO MATCH EXISTING TO THE FULLEST EXTENT POSSIBLE IN CONFORMANCE WITH SPECIFICATION SECTION 09910, "PAINTING"
2. SEE THE MECHANICAL DRAWINGS (M3-2) FOR LOCATIONS AND INSTALLATION IOF NEW OF BATHROOM AND RANGE EXHAUST VENTS AND COMBINATION AIR INTAKE/EXHAUST EQUIPMENT.
3. SEE THE ROOF PLAN AND BUILDING SECTIONS FOR WORK AT NEW SKYLIGHT.

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SHEET: OF	PLAN NO.: A1-7	DRAWING NO.: E- XXXX	REVISION NO.: 0

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DOOR SCHEDULE

DOOR OPENING			DOOR							FRAME		DETAIL				REMARKS
DOOR NO.	LOCATION	FIRE RATING (DOOR AND WINDOW ASSEMBLY)	E = EXT. I = INT.	WIDTH & HEIGHT	THICKNESS	DOOR TYPE	DOOR CONSTRUCTION	DOOR FINISH	GLASS	FRAME CONSTRUCTION	FRAME FINISH	HEAD	JAMB	THRESHOLD	HARDWARE GROUP	
1	EXTERIOR DOOR	-	E	(E)		F	(E)	PT-SG		(E)	PT-SG	-	-	-	3	REFINISH EXISTING DOOR ASSEMBLY
2	INTERIOR DOOR		I	3'-0" X 7'-0"	1 3/4"	A	WD	CLR FIN	1/4" FR SAFETY	GALV. STEEL	PAINT	1&3/A6.6	1&3/A6.6 SIM	2&4/A6.6	2	
3	INTERIOR DOOR		I	3'-0" X 7'-0"	1 3/4"	B	WD	CLR FIN		GALV. STEEL	PAINT	5/A6.6	5/A6.6 SIM	6/A6.6	1	SEE DETAIL 1/A5-2 FOR RESTROOM SIGNAGE/REQUIREMENTS
4	INTERIOR DOOR	45 MIN.	I	3'-0" X 7'-0"	1 3/4"	C	WD	CLR FIN		WD	PAINT	2/A6.4 SIM.	2/A6.4	2/A6.6 SIM	2	NEW WD DOOR TO MATCH PROFILE/DETAIL OF EXISTING FOOR
5	INTERIOR DOOR	90 MIN.	I	3'-0" X 7'-0"	1 3/4"	D	HM	PT-SG		GALV. STEEL	PAINT	7/A6.6	7/A6.6 SIM	2/A6.6 SIM	2	
6	EXTERIOR DOOR	-	E	VIF	1 3/4"	E	HM	PT-SG		(E)	PAINT	-	-	-	4	MODIFY EXISTING JAMB AS REQUIRED FOR PROPER FUNCTION OF DOOR HARDWARE
7	INTERIOR DOOR	45 MIN.	I	3'-0" X 7'-0"	1 3/4"	A	WD	CLR FIN			PAINT	7/A6.6	7/A6.6 SIM	2/A6.6 SIM	2	

INTERIOR ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR		WALL								CEILING			COMMENTS
				NORTH		EAST		SOUTH		WEST					
		MATERIAL	BASE	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	CLG HT	
100	ADMINISTRATIVE AREA	RF	WD	GB	PT-ES	GB	PT-ES	GB	PT-ES	GB	PT-ES	GB	PT-ES	10'-0"	PROVIDE A LEVEL FLOOR SURFACE AS REQUIRED FOR INSTALLATION OF NEW FLOORING MATERIALS IN ROOMS 100, 101, 102 ANS 103. SEE SPEC SECTION 03541 CEMENT UNDERLAYMENT. SEE THE PAINT SCHEDULE ON A6-9.
101	TOILET FACILITIES	CT-1	CT-2 COVE BASE	CT-2	--	CT-2	--	CT-2	--	CT-2	--	GB	PT-GL	10'-0"	PT-GL WALL SURFACES NOT RECEIVING TILE FINISH
102	DRINKING FOUNTAIN LOCKER AREA	RF	WD	GB	PT-ES	GB	PT-ES	--	--	GB	PT-ES	GB	PT-ES	10'-0"	
103	OFFICE	RF	WD	GB	PT-ES	GB	PT-ES	GB	PT-ES	GB	PT-ES	GB	PT-ES	12'-6"	PROVIDE WOOD TRIM ALL 4 INTERIOR WALLS TO MATCH EXISTING
104	GENERATOR ROOM	-	-	GB	PT-ES	GB	PT-ES	GB	PT-ES	GB	PT-ES	GB	PT-ES	12'-6"	ACOUSTICAL PANELS ALL 4 INTERIOR WALLS AND CEILING SEE SPEC SECTION 07211

WINDOW SCHEDULE

NUMBER	TYPE	OPENING		GLAZING	DET.	FRAME		REMARKS
		WIDTH	HEIGHT	GLAZING		MATERIAL	FINISH	
1	A	2'-0"	4'-6"	SAFETY GLAZING/MATCH EXISTING	2/A6.8	WD	ALUM CLAD	VERIFY OPG. SIZE IN THE FILED
2	A	2'-0"	4'-6"	SAFETY GLAZING/MATCH EXISTING	2/A6.8	WD	ALUM CLAD	VERIFY OPG. SIZE IN THE FILED
2	A	2'-0"	4'-6"	SAFETY GLAZING/MATCH EXISTING	2/A6.8	WD	ALUM CLAD	VERIFY OPG. SIZE IN THE FILED
4	A	2'-0"	4'-6"	SAFETY GLAZING/MATCH EXISTING	2/A6.8	WD	ALUM CLAD	VERIFY OPG. SIZE IN THE FILED
5	A	2'-0"	4'-6"	SAFETY GLAZING/MATCH EXISTING	2/A6.8	WD	ALUM CLAD	VERIFY OPG. SIZE IN THE FILED
6	A	2'-0"	4'-6"	SAFETY GLAZING/MATCH EXISTING	2/A6.8	WD	ALUM CLAD	VERIFY OPG. SIZE IN THE FILED
7	A	2'-0"	4'-6"	SAFETY GLAZING/MATCH EXISTING	2/A6.8	WD	ALUM CLAD	VERIFY OPG. SIZE IN THE FILED
8	A	2'-0"	4'-6"	SAFETY GLAZING/MATCH EXISTING	2/A6.8	WD	ALUM CLAD	VERIFY OPG. SIZE IN THE FILED
9	B	2'-0"	8'-4"	SAFETY GLAZING/MATCH EXISTING	1/A6.8	WD	ALUM CLAD	VERIFY OPG. SIZE IN THE FILED
10	B	2'-0"	8'-4"	SAFETY GLAZING/MATCH EXISTING	1/A6.8	WD	ALUM CLAD	VERIFY OPG. SIZE IN THE FILED

LOUVER SCHEDULE

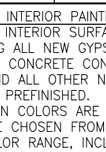
NUMBER	OPENING			MAT / DETAIL			REMARKS
	WIDTH	HEIGHT		MATERIAL	SILL/HEAD	JAMB	
1	10'-0"	1'-8" +/-	DRAINABLE EXTRUDED ALUMINUM LOUVER	ALUM	1/A6.3	1/A6.3 SIM	VERIFY OPG. SIZE IN THE FIELD - SEE SPECS FOR FINISH
2	10'-0"	1'-8" +/-	DRAINABLE EXTRUDED ALUMINUM LOUVER	ALUM	1/A6.3	1/A6.3 SIM	VERIFY OPG. SIZE IN THE FIELD - SEE SPECS FOR FINISH
2	10'-0"	1'-8" +/-	DRAINABLE EXTRUDED ALUMINUM LOUVER	ALUM	1/A6.3	1/A6.3 SIM	VERIFY OPG. SIZE IN THE FIELD - SEE SPECS FOR FINISH
4	10'-0"	1'-8" +/-	DRAINABLE EXTRUDED ALUMINUM LOUVER	ALUM	1/A6.3	1/A6.3 SIM	VERIFY OPG. SIZE IN THE FIELD - SEE SPECS FOR FINISH
5	10'-0"	1'-8" +/-	DRAINABLE EXTRUDED ALUMINUM LOUVER	ALUM	1/A6.3	1/A6.3 SIM	VERIFY OPG. SIZE IN THE FIELD - SEE SPECS FOR FINISH
6	10'-0"	1'-8" +/-	DRAINABLE EXTRUDED ALUMINUM LOUVER	ALUM	1/A6.3	1/A6.3 SIM	VERIFY OPG. SIZE IN THE FIELD - SEE SPECS FOR FINISH
7	10'-0"	1'-8" +/-	DRAINABLE EXTRUDED ALUMINUM LOUVER	ALUM	1/A6.3	1/A6.3 SIM	VERIFY OPG. SIZE IN THE FIELD - SEE SPECS FOR FINISH
8	10'-0"	1'-8" +/-	DRAINABLE EXTRUDED ALUMINUM LOUVER	ALUM	1/A6.3	1/A6.3 SIM	VERIFY OPG. SIZE IN THE FIELD - SEE SPECS FOR FINISH

1. LOCATE NEW LOUVERS IN APPROXIMATE SAME LOCATION AS EXISTING - VIF
2. SEE THE ROOF PLAN FOR LOUVER LOCATIONS
3. PROVIDE SHEET METAL FLASHING ALL AROUND OPENING SEE DETAIL 1 ON A6-3 FOR TYPICAL FLASHING DETAIL

NOTE ON INTERIOR PAINTING:
ALL NEW INTERIOR SURFACES ARE TO BE PAINTED INCLUDING ALL NEW GYPSUM BOARD CONSTRUCTION, AND NEW CONCRETE CONSTRUCTION, NEW STRUCTURAL STEEL AND ALL OTHER NEW INTERIOR SURFACES THAT ARE NOT PREFINISHED. WHEN PAINTING NEW WORK AND WHEN COLORS ARE TO MATCH EXISTING, COLORS SHALL BE CHOSEN FROM THE PAINT MANUFACTURERS FULL COLOR RANGE, INCLUDING BOTH STANDARD AND PREMIUM COLORS/SPECIAL COLORS. PREMIMUN/SPECIAL COLORS SHALL BE SELECTED AT NO ADDITIONAL COST TO THE CITY. SEE SPEC. No. 09910 FOR ADDITIONAL INFORMATION AND A MORE DETAILED SCOPE OF WORK. SEE DETAIL 1 ON A6.9 FOR PAINT SCHEDULE.

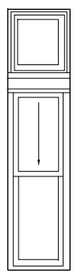
LEGEND

RF	RESILIENT FLOORING (SPEC #09650)
CT-1	NON-SKID FLOOR TILES
CT-2	WALL TILES
PT-ES	PAINT -EGGSHELL
GB	GYPSUM BOARD
WD	WOOD BASE
PT-GL	PAINT-GLOSS
PT-SG	PAINT-SEMI-GLOSS
WD/EXIST	WOOD BASE TO MATCH EXIST.

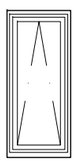


SOLID WOOD TRIM/CLR FINISH

WOOD TRIM (WD)



WINDOW TYPE B


AWNING WINDOW
MATCH PROFILE OF (E) WINDOWS

WINDOW TYPE A

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

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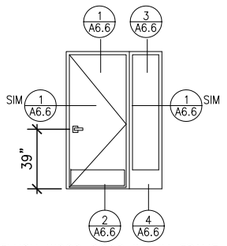
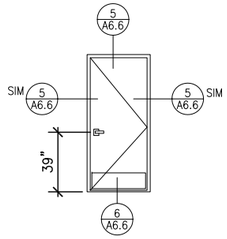
C-15335
REN. 1/2017
STATE OF CALIFORNIA

DOOR TYPES & NOTES



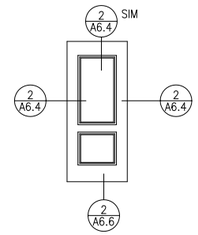
FLUSH WOOD DOOR IN HM FRAME

TYPE A



FLUSH WOOD DOOR IN HM FRAME

TYPE B

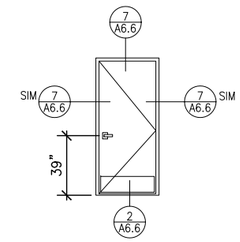


STILE AND RAIL DOOR IN WD FRAME (NEW DOOR TO MATCH PROFILE/DETAIL OF EXISTING DOOR)

TYPE C

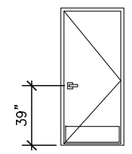
NOTES:

1. SEE SHEET A5.3 FOR DOOR REQUIREMENTS.
2. VERIFY ALL DOOR OPENINGS AND DIMENSION IN FIELD PRIOR TO FABRICATION OF DOORS AND DOOR FRAMES.
3. INTERIOR GLAZING TO BE "SAFETY GLAZING" SEE THE SPECS
4. SEE SPEC. #08100 "WOOD DOORS" FOR ADDITIONAL INFORMATION ON FLUSH WOOD AND STILE AND RAIL DOORS



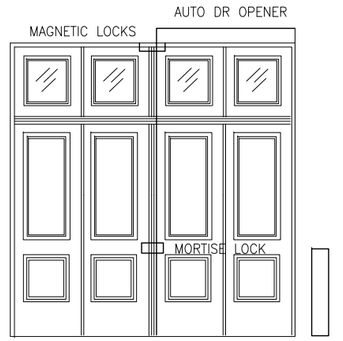
HM DOOR IN HM FRAME (GALV HM DR AND FRAME)

TYPE D



HM DOOR IN EXISTING OPENING

TYPE E



HI-LOW ADA PUSH BOTTONS SEE THE PLANS

EXISTING WD DOOR IN WD FRAME TO BE SALVAGED AND REINSTALLED– SEE SHEET A1-3 FOR ADDITIONAL INFORMATION–REFINISH DOORS

TYPE F

CONTRACT NO. WD-2687

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUILDING DESIGN & CONSTRUCTION DIVISION

AUXILIARY WATER SUPPLY PUMPING STATION NO. 2 IMPROVEMENTS (2014)

DOOR, WINDOW, LOUVER AND INTERIOR FINISH SCHEDULES

PROJECT ARCHITECT: KENT FORD	DRAWN: KENT FORD
SECTION MANAGER: PETER WONG	DESIGNED: KENT FORD
DIVISION MANAGER: JULIA LAUE	CHECKED: PETER WONG

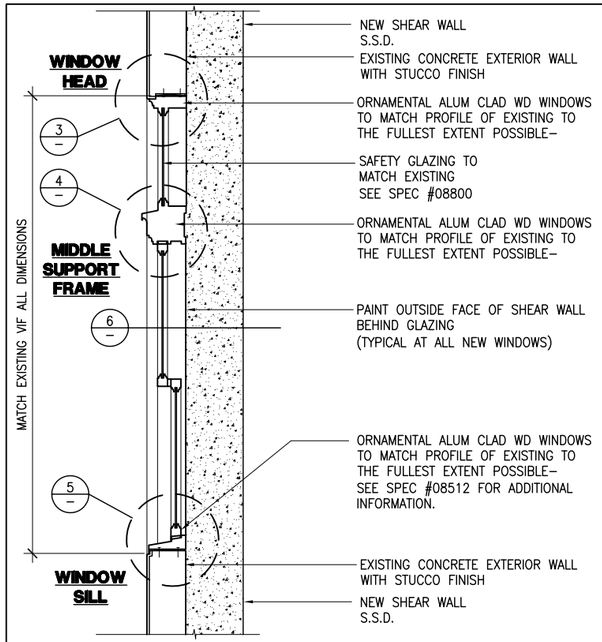
NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CHECKED / APPROVED	DRAWN	SCALE: AS SHOWN
SECTION MANAGER	DESIGNED	DATE
APPROVED: MANAGER, ENGINEERING MANAGEMENT BUREAU	APPROVED: MANAGER, CITY DISTRIBUTION DIVISION	

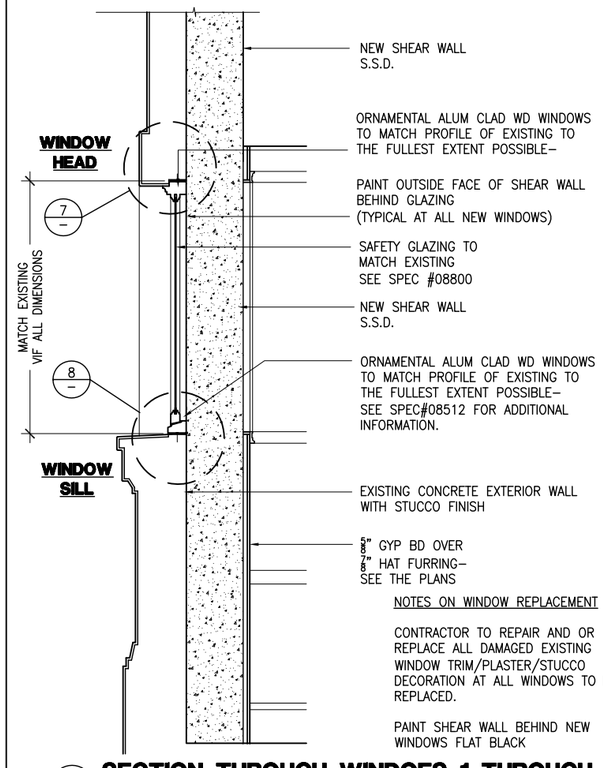
SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	A2-0	E- XXXX	0

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4



1 SECTION THROUGH WINDOWS 9 & 10

SCALE: 3/4" = 1'-0" **(SEE WORK NOTE 4 ON A1-6)**



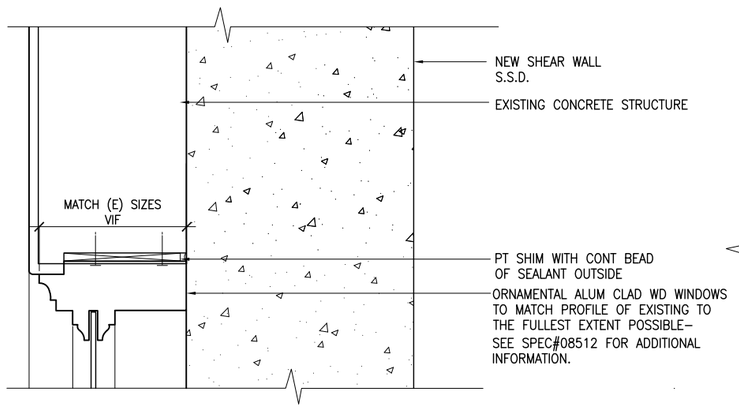
NOTES ON WINDOW REPLACEMENT

CONTRACTOR TO REPAIR AND OR REPLACE ALL DAMAGED EXISTING WINDOW TRIM/PLASTER/STUCCO DECORATION AT ALL WINDOWS TO BE REPLACED.

PAINT SHEAR WALL BEHIND NEW WINDOWS FLAT BLACK

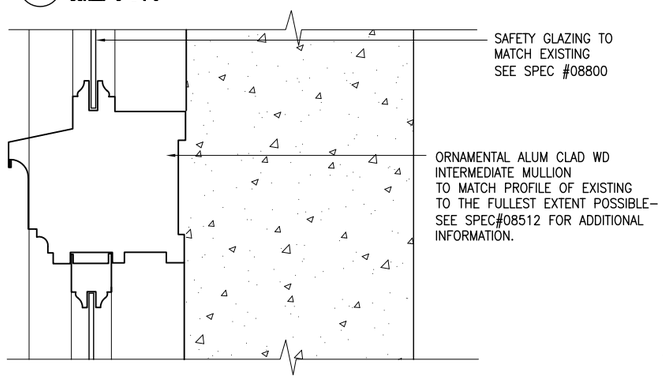
2 SECTION THROUGH WINDOES 1 THROUGH 8

SCALE: 3/4" = 1'-0" **(SEE WORK NOTE 2 ON A1-6)**



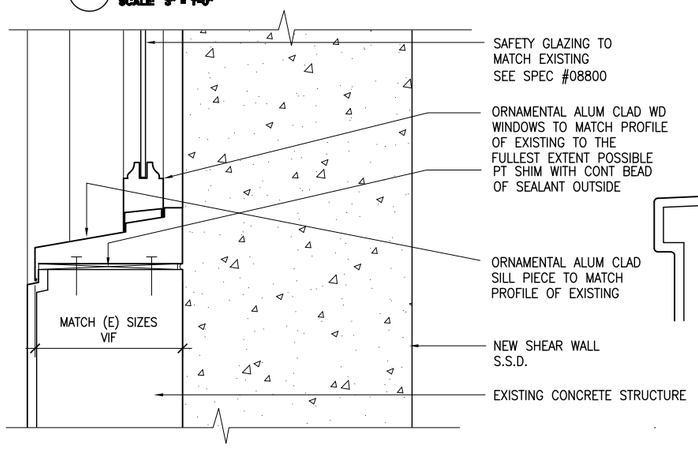
3 WINDOW HEAD CONDITION

SCALE: 3" = 1'-0"



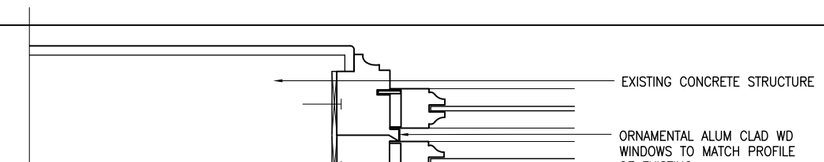
4 INTERMEDIATE FRAME CONDITION

SCALE: 3" = 1'-0"



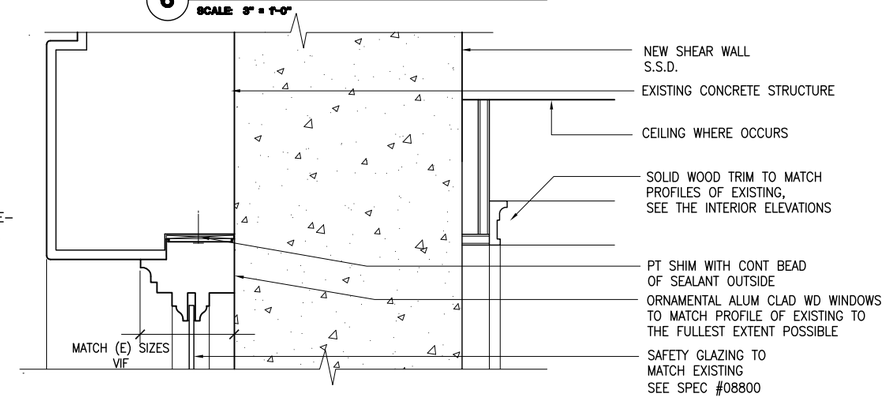
5 WINDOW SILL CONDITION

SCALE: 3" = 1'-0"



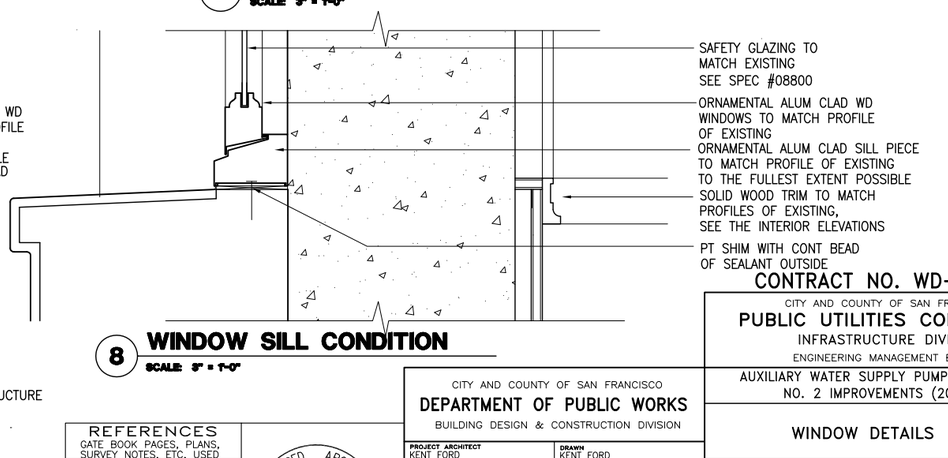
6 WINDOW JAMB CONDITION

SCALE: 3" = 1'-0"



7 WINDOW HEAD CONDITION

SCALE: 3" = 1'-0"



8 WINDOW SILL CONDITION

SCALE: 3" = 1'-0"

CONTRACT NO. WD-2687

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

LICENSED ARCHITECT
KENT PAUL FORD
C-15335
REN. 1/2017
STATE OF CALIFORNIA

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUILDING DESIGN & CONSTRUCTION DIVISION

PROJECT ARCHITECT KENT FORD	DRAWN KENT FORD
SECTION MANAGER PETER WONG	DESIGNED KENT FORD
DIVISION MANAGER JULIA LAUE	CHECKED PETER WONG

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY PUMPING STATION NO. 2 IMPROVEMENTS (2014)

WINDOW DETAILS

CHECKED / APPROVED	DRAWN	SCALE AS SHOWN
SECTION MANAGER	DESIGNED	DATE
APPROVED MANAGER, ENGINEERING MANAGEMENT BUREAU	APPROVED MANAGER, CITY DISTRIBUTION DIVISION	

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	A6-8	E- XXXX	0

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4

EXISTING WOOD TRIM TO BE SALVAGED AND REINSTALLED AT SAME LOCATION AS EXISTING ON SURFACE OF NEW CONCRETE SHEAR WALL.

EXISTING WOOD TRIM TO BE SALVAGED AND REINSTALLED AT SAME LOCATION AS EXISTING ON SURFACE OF NEW CONCRETE SHEAR WALL.

EXISTING WOOD TRIM TO BE SALVAGED AND REINSTALLED AT SAME LOCATION AS EXISTING ON SURFACE OF NEW CONCRETE SHEAR WALL.

EXISTING WOOD TRIM TO BE SALVAGED AND REINSTALLED AT SAME LOCATION AS EXISTING ON SURFACE OF NEW CONCRETE SHEAR WALL.

2 EXISTING WINDOWS

SCALE: NONE

PAINT SCHEDULE

Equipment	Painting Specification	Color	Notes
New ladders and new guardrails	09872	Safety Yellow	See specs. 05500 and 05510 for fabrication
New structural steel for existing utility platform supporting ventilation equipment above engines.	09872	Maroon Color	Color to match existing. For areas where new steel that is to tie into existing steel: Paint 12 inches on existing steel beyond area of work. See spec. 05120 for fabrication.
New structural steel (channels, I-beams, angles, etc.)	09872	Green	Color to match existing. For areas where new steel that is to tie into existing steel: Paint 12 inches on existing steel beyond area of work. 05120 for fabrication spec.
Building exterior walls	09910	White	Color to match existing.
New building interior walls including but not limited to new wall boards, ceiling, new conference room, new concrete walls, and existing walls (see note 3).	09910	Cream	Color to match existing. Exception: Portions of the new, interior concrete walls shall be painted Flat Black. These portions are limited to the area visible by the window. See architectural drawings for location.
Building interior floor (only existing exposed areas to be modified)	09910	Red	Color to match existing. Painting is limited to only floor areas that were originally exposed/visible and where the floor will be affected by architectural, structural, mechanical, electrical and corrosion protection work.
New skylight	08630	Silver	Color to match existing. See spec. 08360 for fabrication.
Roof flashing	09910	White	Color to match existing.
New supports for roof parapet	09872	White	See spec. 05120 for fabrication.
Steel roof deck (Interior Building side)	09872	Cream	Color to match existing. See spec. 05310 for fabrication and primer. See 09872 for intermediate and top coats.
Windows (Exterior and Interior)	08512	Brown	Includes trim. Color to match existing.
Trench Floor Plates	09872	Red	Color to match existing. See spec. 05500 for fabrication.
Engine Enclosures (Exterior side inside building)	09910	Cream	Includes new enclosure for diesel generator; repair of existing enclosures for diesel pump engines as a result of structural modifications. Color to match existing. See spec. 09211 and 07211 for fabrication.
Electrical Panel Support Framing and New bracing, anchors, etc. for existing equipment	09872	Various	Existing equipment includes the boiler facades, salt-water pumps, historical heaters and historical electrical switchgear. Color to match existing surface of equipment. See spec. 05120 for fabrication.
New pipe supports	09872	Various	Color to match adjacent supports on same pipe or existing surface of equipment. See spec. 15062 for fabrication.

1 PAINT SCHEDULE

SCALE: NONE

1. COLOR SHALL MATCH EXISTING TO THE FULLEST EXTENT POSSIBLE AND SHALL BE CHOSED BY THE CITY REPRESENTATIVE FROM PAINT MANUFACTURER'S FULL RANGE, INCLUDING BOTH STANDARD AND CUSTOM/PREMIMUM OR SPECIAL COLORS. PREMIMUM/CUSTON OR SPECIAL COLORS SHALL BE FURNISHED AT NO EXTRA COST TO THE CITY.
2. NAME OF COLOR SHOWN IN THE TABLE IS INTENDED ONLY AS A GENERAL DESCRIPTION OF A COLOR.
3. PAINTING OF EXISTING INTERIOR SURFACES SHALL BE AS DIRECTED BY THE CITY REPRESENTATIVE. SEE BID ITEM IN SPEC. SECTION 01027.
4. CONTRACTOR SHALL REFER TO SPEC. NO. 01011, 01120 AND 02130 FOR HAZARDOUS MATERIALS INFORMATION.

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

LICENSED ARCHITECT
KENT PAUL FORD
C-15335
REN. 1/2017
STATE OF CALIFORNIA

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUILDING DESIGN & CONSTRUCTION DIVISION

PROJECT ARCHITECT: KENT FORD	DRAWN: KENT FORD
SECTION MANAGER: PETER WONG	DESIGNED: KENT FORD
DIVISION MANAGER: JULIA LAUE	CHECKED: PETER WONG

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CONTRACT NO. WD–2687

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY PUMPING STATION NO. 2 IMPROVEMENTS (2014)

PAINT SCHEDULE AND EXISTING WINDOW WOOD TRIM PICTURES

CHECKED / APPROVED	DRAWN	SCALE: AS SHOWN	
SECTION MANAGER	DESIGNED	DATE	
APPROVED: MANAGER, ENGINEERING MANAGEMENT BUREAU	APPROVED: MANAGER, CITY DISTRIBUTION DIVISION		
SHEET: OF	PLAN NO.: A6–9	DRAWING NO.: E– XXXX	REVISION NO.: 0

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4

ABBREVIATIONS

&	AND
@	AT
℄	CENTERLINE
ø	DIAMETER
2C/2-C	DOUBLE CHANNELS
2L/2-L	DOUBLE ANGLES
AB	ANCHOR BOLT
AC	ASPHALTIC CONCRETE
ACI	AMERICAN CONCRETE INSTITUTE
ADD	ADDITIONAL
AGGR	AGGREGATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AL	ALUMINUM
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX.	APPROXIMATE
ARCH	ARCHITECTURAL
AWS	AMERICAN WELDING SOCIETY
AWSS	AUXILIARY WATER SUPPLY SYSTEM
BET	BETWEEN
BLDG	BUILDING
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BM	BEAM
C	CHANNEL
C.B.	CATCH BASIN
CI	CAST IRON
CIP	CAST IRON PIPE
C.J.	CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
CLR	CLEAR, CLEARANCE
CLSM	CONTROLLED LOW STRENGTH MATERIALS
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CN. J	CONSTRUCTION JOINT
CO	CLEAR OPENING
COL.	COLUMN
CONC.	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTR	CENTER(ED)
CSK	COUNTERSINK
CU. YD.	CUBIC YARD
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DN	DOWN
DO	DITTO
DWG	DRAWING
(E)	EXISTING
E	EAST
EA	EACH
EF/E.F.	EACH FACE
ELECT	ELECTRICAL
EL	ELEVATION
EMBED	EMBEDMENT
EN	EDGE NAIL
E.O.D.	EDGE OF DECK
EQ	EQUAL
ES	EACH SIDE
EW/E.W.	EACH WAY
E.W.S.	END WELDED STUD
EXIST	EXISTING
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
F.B.	FLAT BAR
FCAW	FLUX CORED ARC WELDING
FD	FLOOR DRAIN
F.F.	FINISHED FLOOR
FIG	FIGURE
FIN	FINISHED
FOUND	FOUNDATION
FLG	FLANGE
FLR	FLOOR
FRP	FIBER REINFORCED POLYMER
FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GR	GROUND
HDG	HOT-DIP GALVANIZED
HGR	HANGER
HI	HIGH
HORIZ	HORIZONTAL
H.PT.	HIGH POINT
HR	HANDRAIL
H.S.B.	HIGH STRENGTH BOLT
HSS	HOLLOW STRUCTURAL SECTION
INFO	INFORMATION
INT	INTERIOR
ID	INSIDE DIAMETER
IN	INCH
INSUL	INSULATION
INV	INVERT
INV. EL	INVERT ELEVATION
JB	JUNCTION BOX
JT	JOINT
KIP(S)	1000 POUNDS-FORCE
LF	LINEAR FEET
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG.	LONGITUDINAL
LR	LONG RADIUS
L. PT.	LOW POINT
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MET	METAL
MEZZ	MEZZANINE
MFG	MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
(N)	NEW
N	NORTH
N.I.A.	NOT IN CONTRACT
NO.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.S.	OPPOSITE HAND
OPNG	OPENING
OPP.	OPPOSITE
PC	PIECE
PERF	PERFORATED
PL	PLATE
P/L	PROPERTY LINE OR PIPE LINE
PSI	POUNDS PER SQUARE INCH
P.T.	PRESSURE TREATED
F.R.T.P.	FIRE RETARDANT TREATED PLYWOOD
R	RADIUS
REF	REFERENCE
REINF.	REINFORCEMENT
REQD	REQUIRED
REV	REVISION
RM	ROOM
RO	ROUGH OPENING
S	SOUTH
SAD/S.A.D.	SEE ARCHITECTURAL DRAWING
SCD/S.C.D.	SEE CIVIL DRAWING
SCHED	SCHEDULE
SECT	SECTION
SED/S.E.D.	SEE ELECTRICAL DRAWING
SFBC	SAN FRANCISCO BUILDING CODE
SFPUC	SAN FRANCISCO PUBLIC UTILITIES COMMISSION
SFWD	SAN FRANCISCO WATER DEPARTMENT
SHT	SHEET
SIM	SIMILAR
S.J.	SCORE JOINT
S.L.D.	SEE LANDSCAPE DRAWING
S.L.H.	SHORT LEG HORIZONTAL
SLV	SHORT LEG VERTICAL
SMD/S.M.D.	SEE MECHANICAL DRAWING
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION
S.M.S.	SHEET METAL SCREW
SMAW	SHIELD METAL ARC WELDING
SPEC	SPECIFICATION
SQ.	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRL	STRUCTURAL
STRUCT	STRUCTURE
SYM	SYMMETRY
T & B	TOP AND BOTTOM
T.C.	TOP OF CURB
THK	THICK
T.O.B.	TOP OF BEAMS
T.O.C.	TOP OF CONCRETE
T.O.G	TOP OF GRATING
T.O.P	TOP OF PIPE
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TRV	TRANSVERSE
TS	STRUCTURAL TUBE, TUBE STEEL
(TYP)	TYPICAL
UNO/U.N.O.	UNLESS NOTED OTHERWISE
UON/U.O.N.	UNLESS OTHERWISE NOTED
V.C.P.	VITRIFIED CLAY PIPE
VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
VTR	VENT TO ROOF
W	WIDE FLANGE STEEL BEAM
W/	WITH
WD	WOOD
W/O	WITHOUT
WSP	WELDED STEEL PIPE
WP	WORK POINT
XS	EXTRA-STRONG

LEGENDS

SELECTIVE DEMOLITION

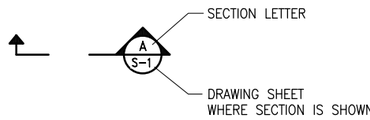
(E) CONCRETE

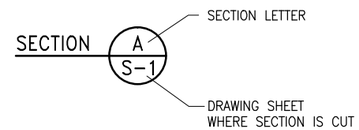
(N) CONCRETE

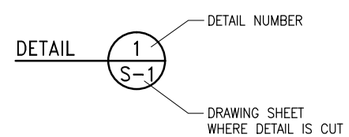
GROUT

STEEL

OPENING







PLOT: EXTENTS
SCALE: 1:1
BORDER: 22,34
COLOR: No.

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YELLOW	0.20MM
GREEN	0.25MM
CYAN	0.40MM
BLUE	0.50MM
MAGENTA	0.20MM
WHITE	0.35MM
GRAY	0.15MM
9	0.15MM
10	1.00MM
100	0.50MM
210	0.50MM

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

REGISTERED PROFESSIONAL ENGINEER
KENT LEUNG
S 4022
STRUCTURAL
STATE OF CALIFORNIA

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CONTRACT NO. WD-2687

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY SYSTEM
PUMPING STATION NO. 2 IMPROVEMENTS (2016)

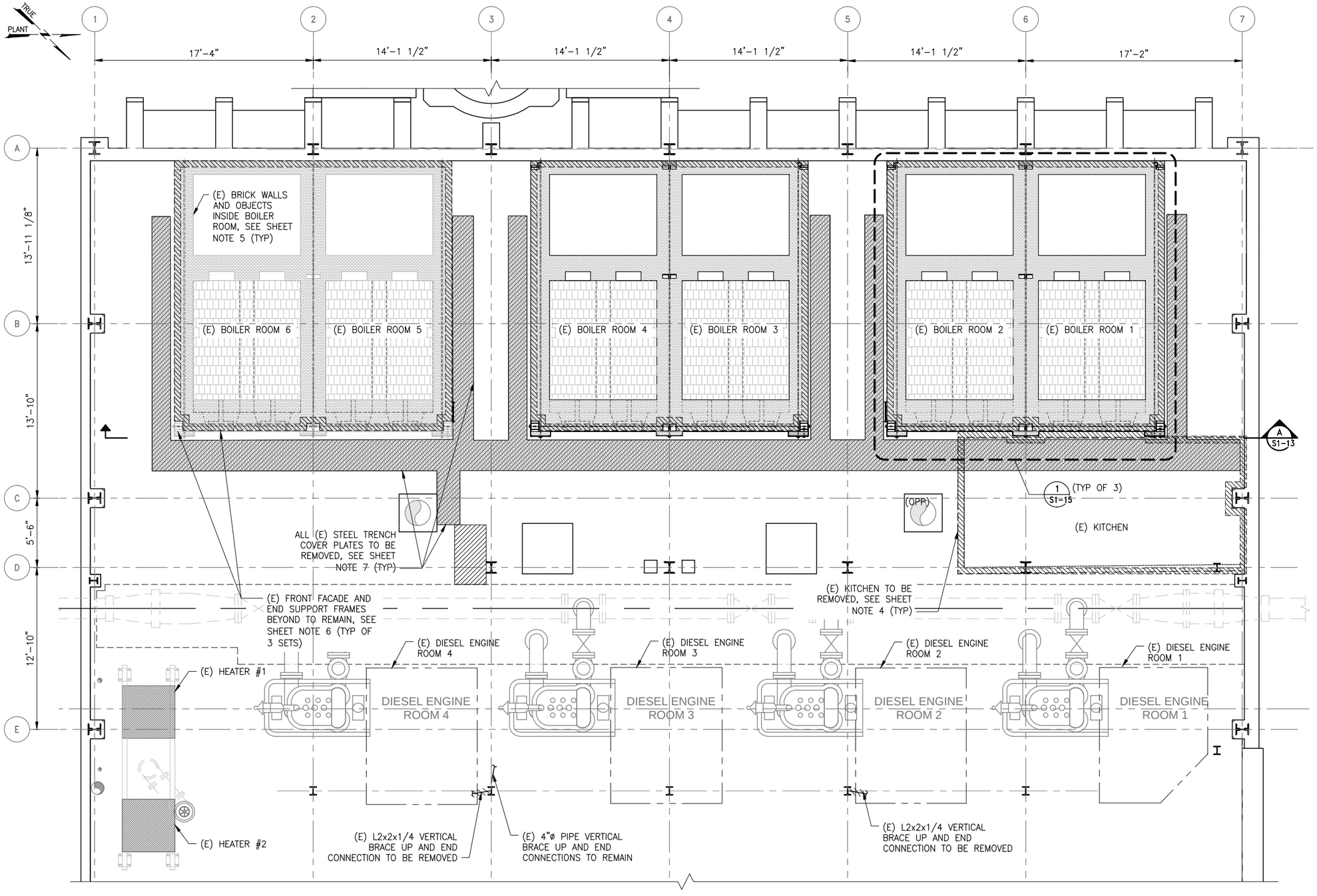
ABBREVIATIONS AND LEGENDS

CHECKED / APPROVED	DRAWN: DH	SCALE: AS SHOWN
SECTION MANAGER	DESIGNED	DATE: 01/2016
APPROVED	APPROVED	
MANAGER, ENGINEERING MANAGEMENT BUREAU	MANAGER, CITY DISTRIBUTION DIVISION	

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	S0-1	E--	0

FILE: Q:\AUXILIARY WATER SUPPLY SYSTEM (AWSS)\DESIGN\WD-2687\STRUCTURAL\CUWAWSAW04-PUMP STATION NO. 2\100% SUBMITTAL\ACTIVE\S0-1.DWG

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4



BOILER ROOM FLOOR PLAN–DEMOLITION

1/4"=1'-0"

1 / S1-1

SHEET NOTES:

1. THE EXISTING DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK.
2. FLOOR SLAB AND FOUNDATION DEMOLITIONS ARE NOT SHOWN FOR CLARITY. FOR SLAB AND FOUNDATION DEMOLITIONS, SEE S1–0.
3. FOR ROOFS OF EXISTING BOILER ROOMS AND KITCHEN, SEE S1–8.
4. DEMOLISH ENTIRE EXISTING KITCHEN STRUCTURE AND OBJECTS. S.A.D. FOR DEMOLITION DETAILS.
5. EXCEPT THE FRONT FACADES AND SUPPORT FRAMES BEYOND THE FRONT FACADES, ALL BRICKS, PIPES, TANKS, METALS AND OTHER COMPONENTS INSIDE THE BOILER ROOMS TO BE REMOVED PER SPECIFICATION 02112. SOME OF REMOVED COMPONENTS MAY CONTAIN HAZARDOUS MATERIALS. THE CONTRACTOR SHALL REFER TO PROJECT HAZARDOUS MATERIAL REPORT AND SPECIFICATION 02130 HAZARDOUS MATERIALS PROCEDURE WHEN PERFORM DEMOLITION WORK.
6. THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING TO SUPPORT AND PROTECT FACADE PANELS AND/OR UNDERPINNING AND END SUPPORT FRAMES BEYOND THE FRONT FACADE PER SPECIFICATION 02111.
7. THE TRENCH COVER PLATES CONTAIN GREASE/OIL. THE DEMOLITIONS OF COVER PLATE AND TRENCH STRUCTURE SHALL FOLLOW SPECIFICATION 02130 HAZARDOUS MATERIALS PROCEDURE.
8. S.A.D., S.M.D. AND S.E.D. FOR ADDITIONAL DEMOLITIONS NOT SHOWN ON STRUCTURAL DEMOLITION DRAWINGS.

LEGENDS:

- – INDICATES EXISTING TRENCH COVER PLATES TO BE REMOVED, SEE SHEET NOTE 7.
- – INDICATES BOUNDARIES OF DEMOLITION AREA, SEE SHEET NOTES 4 & 5.

PLOT: EXTENTS
SCALE: 1:1
BORDER: 22,34
COLOR: No.

RED	0.70MM
YELLOW	0.20MM
GREEN	0.25MM
CYAN	0.40MM
BLUE	0.50MM
MAGENTA	0.20MM
WHITE	0.35MM
GRAY	0.15MM
9	0.15MM
10	1.00MM
100	0.50MM
210	0.50MM

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

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REGISTERED PROFESSIONAL ENGINEER
ALLEN K. LIM
C 55813
CIVIL
STATE OF CALIFORNIA

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CONTRACT NO. WD-2687

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY SYSTEM
PUMPING STATION NO. 2 IMPROVEMENTS (2016)

PARTIAL FLOOR PLAN – DEMOLITION

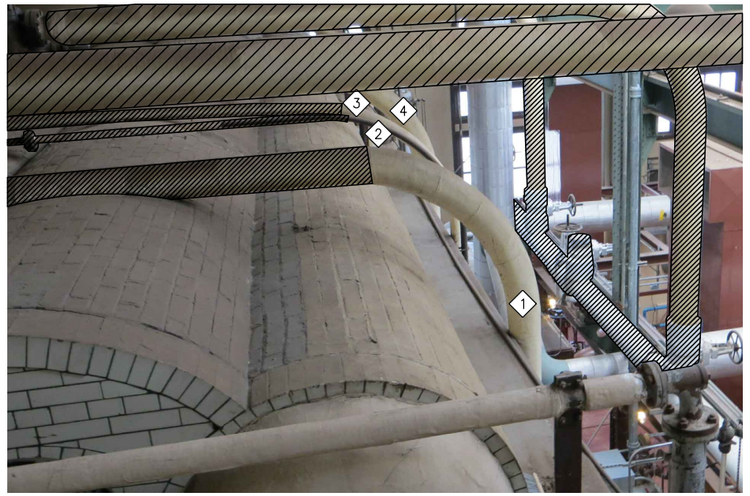
CHECKED / APPROVED	DRAWN	SCALE: AS SHOWN
SECTION MANAGER	DESIGNED	DATE: 01/2016
APPROVED MANAGER, ENGINEERING MANAGEMENT BUREAU	APPROVED MANAGER, CITY DISTRIBUTION DIVISION	

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	S1-6	E--	0

FILE: Q:\AUXILIARY WATER SUPPLY SYSTEM (AWSS)\DESIGN\WD-2687\STRUCTURAL\CUWAWSAW04-PUMP STATION NO. 2\100% SUBMITTAL\ACTIVE\S1-6.DWG 10/23/2015 9:47:51 AM

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4

SECTION A S1-8
N.T.S.



SECTION B S1-8
N.T.S.

SECTION 1 –
N.T.S.

SHEET NOTES:

1. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK.
2. ONLY THOSE PIPES, WHICH ARE ATTACHED TO THE (E) BOILER ROOM FRONT FACADE TO PARTIALLY REMAIN. SEE SHEET NOTE 5 BELOW. PROVIDE NEW PIPE SUPPORTS MAY BE REQUIRED.
3. SEE MECHANICAL DRAWINGS FOR ADDITIONAL DEMOLITIONS OF (E) PIPES AND (E) MECHANICAL COMPONENTS.
4. PIPE DESIGNATIONS ◇1 ~ ◇4 ARE APPLIED TO BOILER ROOMS #1/#2, #3/#4 AND #5/#6. ATTACH PIPE DESIGNATIONS ◇1 , ◇3 & ◇4 TO THE TOP OF FRONT FACADE WITH PIPE CLAMPS SIMILAR TO PIPE DESIGNATION ◇2 . THE PIPE CLAMPS SHALL FIT THE SIZES OF EXISTING PIPES AND BE BOLTED OR WELDED TO THE FACADE PANELS.
5. (E) PIPE SUPPORTS ATTACHED TO (E) BOILER ROOM FRONT FACADES FOR PIPE DESIGNATION ◇5 TO REMAIN, TYPICAL. THERE IS NO PIPE SUPPORT AT SOUTH END OF BOILER ROOM #6. THE CONTRACTOR SHALL INSTALL A NEW PIPE SUPPORT SIMILAR TO THE (E) ONE AS AT THE NORTH END OF BOILER ROOM #5 FOR PIPE DESIGNATION ◇5 PRIOR TO DEMOLISH PIPE AS SHOWN ON MECHANICAL DRAWINGS.
6. (E) FRONT FACADE ATTACHMENTS TO REMAIN. ATTACHMENTS REQUIRED TO BE SALVAGED AND RE–INSTALLED WHEN POUR NEW CONCRETE WALLS AND FOUNDATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP ALL SALVAGED OBJECTS IN SAFE PLACE TO AVOID ANY DAMAGE DURING CONSTRUCTION.

LEGENDS:

▨ – INDICATES PORTION OF PIPES TO BE DEMOLISHED

◇1 – INDICATES PIPE DESIGNATION FOR PORTION OF PIPE TO BE REMOVED AND REQUIRE NEW PIPE SUPPORTS

PLOT: EXTENTS
SCALE: 1:1
BORDER:
22,34
COLOR: No.

RED	0.70MM
YELLOW	0.20MM
GREEN	0.25MM
CYAN	0.40MM
BLUE	0.50MM
MAGENTA	0.20MM
WHITE	0.35MM
GRAY	0.15MM
9	0.15MM
10	1.00MM
100	0.50MM
210	0.50MM

REFERENCES
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CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY SYSTEM
PUMPING STATION NO. 2 IMPROVEMENTS (2016)

BOILER ROOM SECTIONS – DEMOLITION

CHECKED / APPROVED	DRAWN	SCALE AS SHOWN
SECTION MANAGER	DESIGNED	DATE 01/2016
APPROVED	APPROVED	
MANAGER, ENGINEERING MANAGEMENT BUREAU		MANAGER, CITY DISTRIBUTION DIVISION

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	S1–12	E––	0

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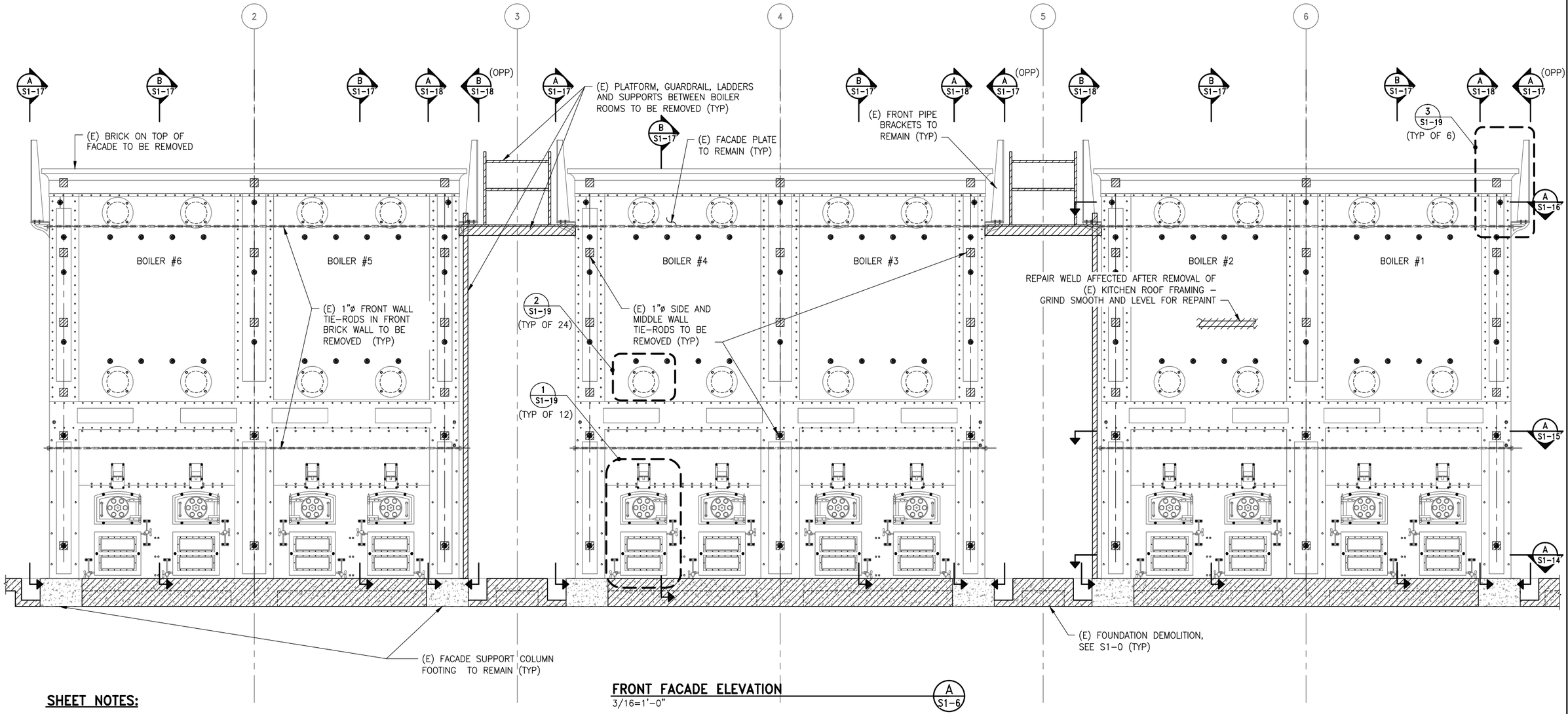
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4



FRONT FACADE ELEVATION

3/16=1'-0"

A S1-6

SHEET NOTES:

1. SEE SHEET NOTES ON S1-25, TYPICAL.

LEGENDS:

▨ – INDICATES (E) PLATFORM STRUCTURES AND PARTIAL OF (E) FOUNDATION TO BE DEMOLISHED

PLOT: EXTENTS
SCALE: 1:1
BORDER: 22,34
COLOR: No.

RED	0.70MM
YELLOW	0.20MM
GREEN	0.25MM
CYAN	0.40MM
BLUE	0.50MM
MAGENTA	0.20MM
WHITE	0.35MM
GRAY	0.15MM
9	0.15MM
10	1.00MM
100	0.50MM
210	0.50MM

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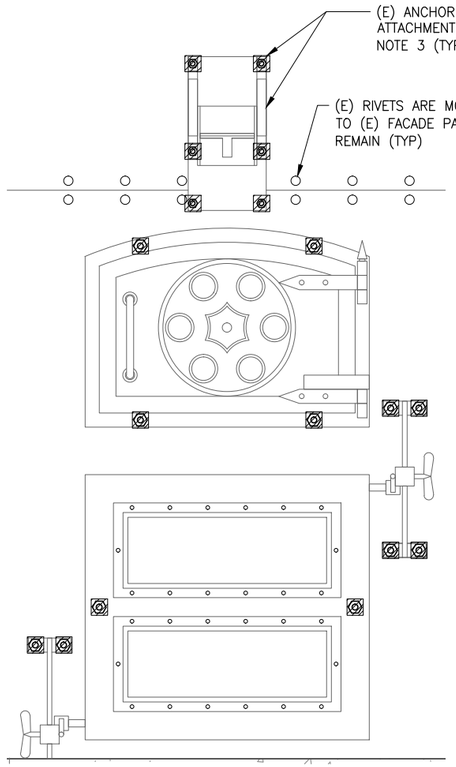
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY SYSTEM
PUMPING STATION NO. 2 IMPROVEMENTS (2016)

FRONT FACADE ELEVATION – DEMOLITION

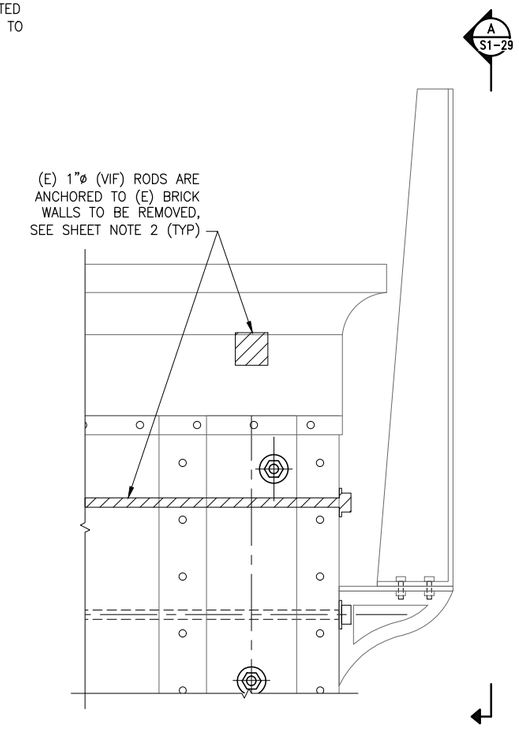
CHECKED / APPROVED	DRAWN	SCALE AS SHOWN
SECTION MANAGER	DESIGNED	DATE 01/2016
APPROVED MANAGER, ENGINEERING MANAGEMENT BUREAU	APPROVED MANAGER, CITY DISTRIBUTION DIVISION	

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	S1-13	E--	0

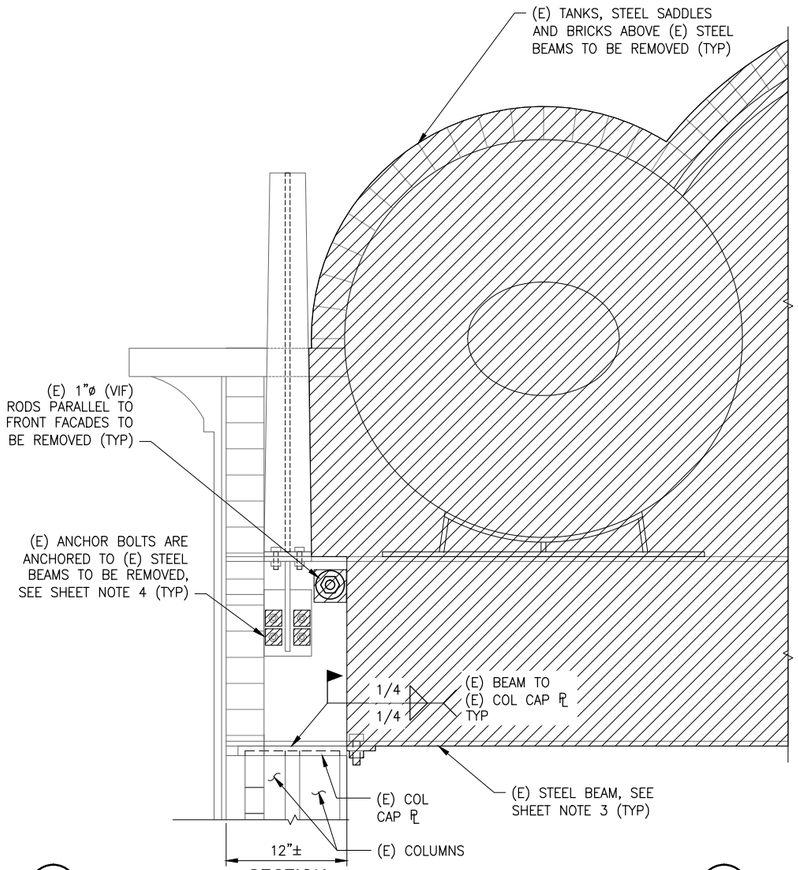


NOTE: NOT ALL ATTACHMENT ANCHOR BOLTS ARE SHOWN. THE CONTRACTOR SHALL VERIFY IN THE FIELD.

BOILER FACADE DETAIL – DEMOLITION (1 / S1-13)
3"=1'-0"



BOILER FACADE DETAIL – DEMOLITION (3 / S1-13)
3"=1'-0"



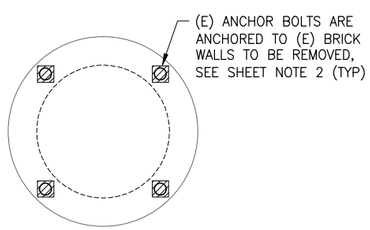
SECTION (A / –)
3"=1'-0"

SHEET NOTES:

1. SEE SHEET NOTES ON S1-28, TYPICAL.
2. (E) BOILER ROOM BRICK WALLS TO BE DEMOLISHED TYP., U.O.N. FOR THESE ATTACHMENTS WHICH ARE BOLTED TO (E) FRONT FACADE PANEL, THE CONTRACTOR SHALL RETAIN AND PROTECT THESE ATTACHMENTS IN PLACE PER SPECIFICATION 02111. FOR THESE FRONT FACADE ATTACHMENTS WHICH ARE ANCHORED TO (E) BRICK WALL, THE CONTRACTOR SHALL REMOVE, SALVAGE AND REINSTALL THESE ATTACHMENTS PER SPECIFICATION SECTION 02112. THE NEW ANCHOR BOLT DIAMETERS SHALL MATCH EXISTING AND CASE-IN-PLACE IN NEW CONCRETE WALLS PER DETAIL . THE CASE-IN-PLACE ANCHOR BOLTS SHALL BE ASTM A36 THREADED RODS.
3. (E) STEEL BEAMS ARE ABOVE (E) FACADE SUPPORT COLUMNS TO BE DEMOLISHED EXCEPT THE PORTION ABOVE THE COLUMN CAP PLATES. FIELD WELD THE REMAINING PORTION OF (E) BEAM TO THE COLUMN CAP PLATE PRIOR TO DEMOLITION.
4. FOR (E) ATTACHMENTS CONNECTED TO THE REMAINING (E) STEEL BEAM, THE CONTRACTOR SHALL REMOVE (E) ANCHORS, SALVAGE (E) REMOVED ATTACHMENT IN SAFETY STORAGE, RE-ATTACH TO NEW CONCRETE FACADE SUPPORT WALLS. THE NEW ANCHOR BOLT DIAMETERS SHALL MATCH EXISTING AND CASE-IN-PLACE IN NEW CONCRETE WALLS WITH MINIMUM 6" EMBEDMENT. THE CASE-IN-PLACE ANCHOR BOLTS SHALL BE ASTM A36 THREADED RODS

LEGENDS:

▨ – INDICATES (E) FACADE ATTACHMENT ANCHOR BOLTS TO BE REMOVED, SEE SHEET NOTE 2.



BOILER FACADE DETAIL – DEMOLITION (2 / S1-13)
3"=1'-0"

PLOT: EXTENTS
SCALE: 1:1
BORDER: 22,34
COLOR: No.

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YELLOW	0.20MM
GREEN	0.25MM
CYAN	0.40MM
BLUE	0.50MM
MAGENTA	0.20MM
WHITE	0.35MM
GRAY	0.15MM
9	0.15MM
10	1.00MM
100	0.50MM
210	0.50MM

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

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NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CONTRACT NO. WD-2687

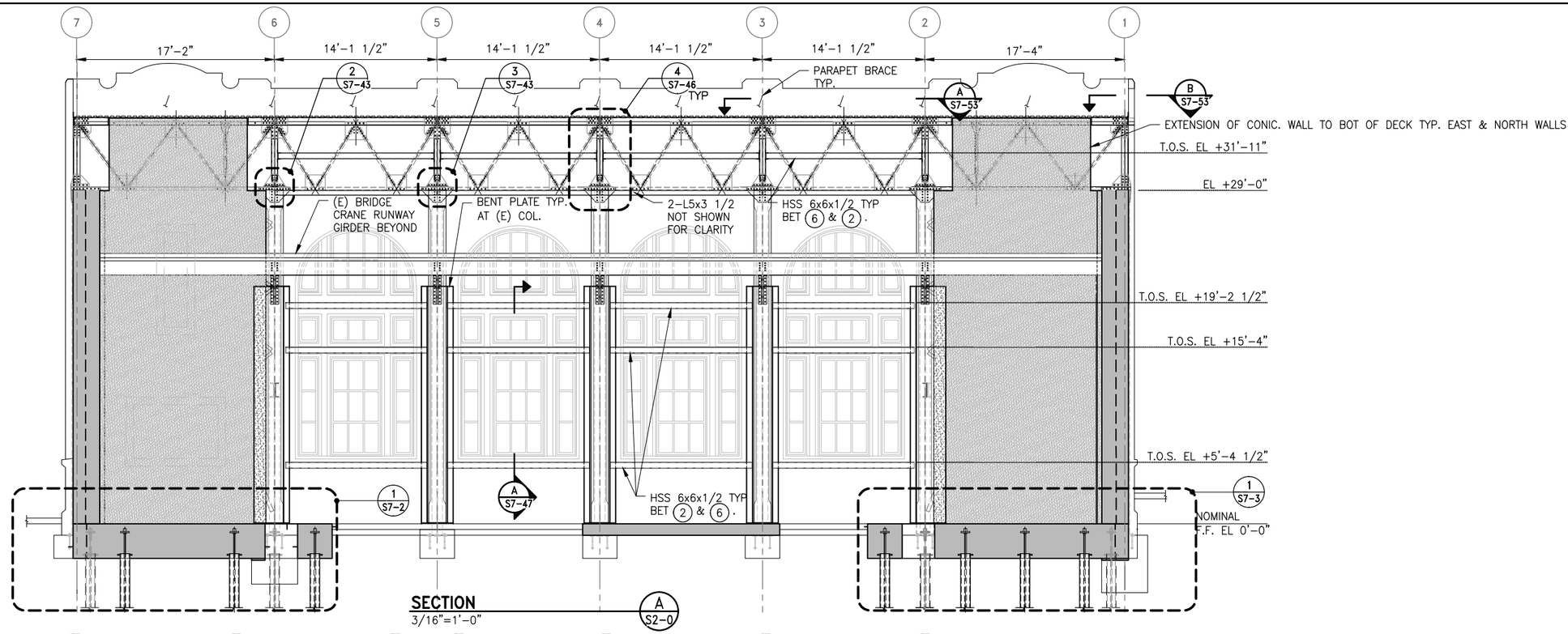
CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY SYSTEM
PUMPING STATION NO. 2 IMPROVEMENTS (2016)

BOILER ROOM FACADE DETAILS – DEMOLITION

CHECKED / APPROVED	DRAWN	SCALE
		AS SHOWN
SECTION MANAGER	DESIGNED	DATE
		01/2016
APPROVED	APPROVED	
MANAGER, ENGINEERING MANAGEMENT BUREAU	MANAGER, CITY DISTRIBUTION DIVISION	

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	S1-19	E--	0



PLOT: EXTENTS
SCALE: 1:1
BORDER: 22,34
COLOR: No.

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YELLOW	0.20MM
GREEN	0.25MM
CYAN	0.40MM
BLUE	0.50MM
MAGENTA	0.20MM
WHITE	0.35MM
GRAY	0.15MM
9	0.15MM
10	1.00MM
100	0.50MM
210	0.50MM

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KENT LEUNG
S 4022
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STATE OF CALIFORNIA

NO.	DATE	DESCRIPTION	BY	APPR'D

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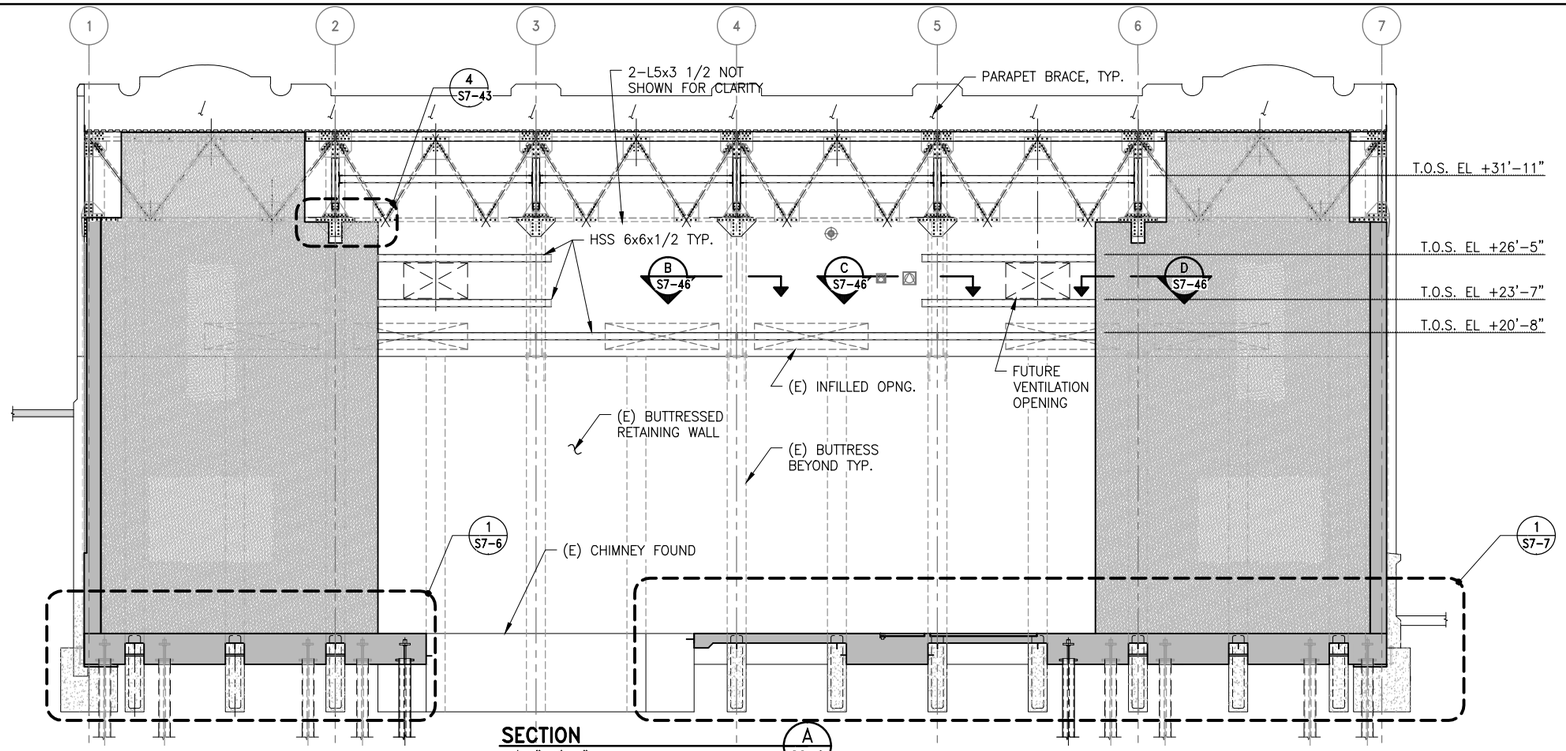
CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY SYSTEM
PUMPING STATION NO. 2 IMPROVEMENTS (2016)

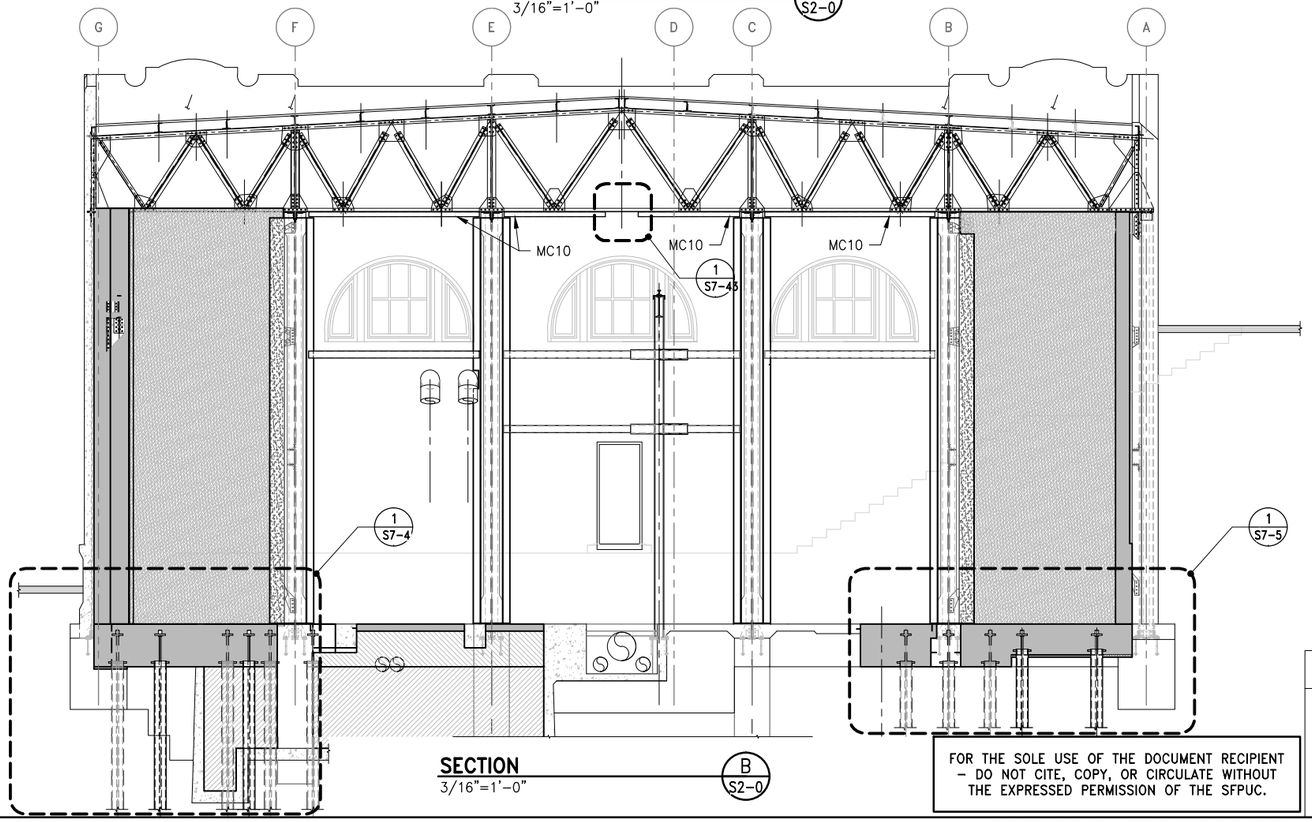
ELEVATIONS

CHECKED / APPROVED	DRAWN	SCALE: AS SHOWN
SECTION MANAGER	DESIGNED	DATE: 01/2016
APPROVED	APPROVED	
MANAGER, ENGINEERING MANAGEMENT BUREAU	MANAGER, CITY DISTRIBUTION DIVISION	

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	S3-0	E--	0



SECTION A S2-0
3/16"=1'-0"



SECTION B S2-0
3/16"=1'-0"

NOTE:

FOR NOTES & DETAILS NOT SHOWN, SEE A S3-0

REFERENCES
GATE BOOK PAGES, PLANS, SURVEY NOTES, ETC, USED

GATE BOOK PAGES NO.

REGISTERED PROFESSIONAL ENGINEER
KENT LEUNG
S 4022
STRUCTURAL
STATE OF CALIFORNIA

NO.	DATE	DESCRIPTION	BY	APPR'D
		REVISIONS		

CONTRACT NO. WD-2687

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

AUXILIARY WATER SUPPLY SYSTEM
PUMPING STATION NO. 2 IMPROVEMENTS (2016)

ELEVATIONS

CHECKED / APPROVED	DRAWN	SCALE: AS SHOWN
SECTION MANAGER	DESIGNED	DATE: 01/2016
APPROVED	APPROVED	
MANAGER, ENGINEERING MANAGEMENT BUREAU	MANAGER, CITY DISTRIBUTION DIVISION	

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
OF	S3-1	E--	0

PLOT: EXTENTS
SCALE: 1:1
BORDER: 22,34
COLOR: No.

RED	0.70MM
YELLOW	0.20MM
GREEN	0.25MM
CYAN	0.40MM
BLUE	0.50MM
MAGENTA	0.20MM
WHITE	0.35MM
GRAY	0.15MM
9	0.15MM
10	1.00MM
100	0.50MM
210	0.50MM