



**Addendum, Change Order,
 Drawing, Deferred Approval
 Worksheet and Transmittal Memo**

New Resubmittal Date Sent: 7/13/2018 File # _____ Appl. # 01REH-10075

Job **Berkeley City College Rehabilitation Design Criteria Report**

Addendum Number	Deferred Submittal	Preliminary Change Order	Change Order Number	REH Report
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Date	8/7/2018	7/25/2018	08/07/2018

**EVALUATION AND DESIGN CRITERIA REPORT
REVISION 3
DSA BACKCHECK**

BERKELEY CITY COLLEGE

2118 MILVIA STREET

**2118 Milvia Street
Berkeley, CA**

Date issued: May 12, 2017
REVISIONS dated 2/9/18
REVISIONS 2 dated 6/29/18
REVISIONS 3 dated 8/7/18

KPW Project No 16C129
DSA APPLICATION #01REH-10075



IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT

APPL 01REH-10075
KWON FLS [Signature] SS HD
DATE 08-07-2018

District: Peralta Community College District

Architect: Noll & Tam Architects
729 Heinz Avenue
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1.0 Introduction

The scope of this project is to convert an existing nonconforming office building for use as a community college building by the Peralta Community College District. Previous evaluations of the building showed that seismic strengthening is necessary to meet the requirements of Title 24 as amended by the Division of State Architect (DSA) for community colleges (SS/CC).

2.0 Existing Building Description

The existing office building at 2118 Milvia Street is currently three stories constructed as follows:

- 8" Reinforced CMU perimeter walls
- Steel-framed (primary) with wood infill (roof and floors) joist framing and plywood horizontal assembly.
- Second and third floor diaphragm is covered with a nonstructural concrete topping slab.
- Ground floor is reinforced concrete slab-on-grade.
- Founded upon isolated spread footings (typical) and reinforced concrete drilled piers connected by a grade beam on west exterior wall line.
- Cold-Formed Steel (CFS) interior wall assembly

A seismic upgrade of the building was implemented around 1995 and consisted of the following:

- Addition of two bays of diagonal braces at the first floor (one bay each direction)
- Addition of CMU wall anchorage and limited drag connections at the second and third floors

The existing building description is based on the following documents, which are included in Appendix A:

- Structural Drawings dated 8-19-66 by L.L. Freels and Associates for the original building construction:
 - Sheets S1 - S8 (8 sheets total)
- Structural Drawings dated 9-20-95 by Paul F. Fratessa Associates, Inc. for the Seismic Upgrade of the Existing Building:
 - Sheets S1 – S5 (5 sheets total)
- Renovation Drawings dated 1996 by Anshen & Allen
 - The renovation drawings dated 5/20/96 are stamped by the Berkeley Codes and Inspection Division on June 6, 1996. Some sheets are missing from this set. Until 2017 the City of Berkeley's Building and Safety Department, and Planning and Development Department offices occupied the building, and this set represents the interior layout of their former offices. We believe the City has provided all the drawings that they had on file.

Noll & Tam has made a number of site visits to confirm existing conditions and confirm that the set of drawings dated 5/20/96 accurately represents the existing conditions at the site. One element of the Data Collection process (refer to Section 5.0 of this report) will be the field observation and assessment of the as-built structural conditions. This field observation will be under the supervision of KPW; overall structural observation to verify the assessment is being performed properly will also be by KPW. At the completion of this work, KPW will provide a statement on the cover sheet of the existing drawings attesting that they match those shown in the 1966 and 1995 structural drawing sets noted above, OR to note any variations between the as-built conditions and the drawings.

The purpose of this report is to provide structural design criteria for use in: analysis of the full building for all gravity, wind, and seismic loads; design of limited upgrades as needed for gravity and wind loading; and for the design of a full building seismic rehabilitation. The report also provides criteria for the evaluation of all nonstructural elements that will remain and for the rehabilitation of these elements. Regardless of the potential deficiencies indicated within this report, the entire structural system will be fully evaluated and ALL deficiencies related to gravity and lateral loading conditions will be mitigated as part of the construction application. Similarly, all nonstructural deficiencies will be mitigated as part of the construction application, regardless of the potential deficiencies noted in this report. This report is submitted for review by DSA as part of the Pre-Application process set forth in Administrative Code Section 4-307(c).

3.0 Proposed Retrofit

Overview

The Berkeley City College at 2118 Milvia Street building project will convert a nonconforming office building for use as a community college building. Per CBC 4-307(c) administrative code, the building is considered to be a new building for design purposes. The proposed retrofit described in this section addresses all aspects of the building design, including both gravity and lateral design loading and structural element retrofit or replacement. In addition to any structural deficiencies specifically noted in this report, the entire structural system will be evaluated and ALL deficiencies, both gravity and lateral, will be identified and mitigated through the addition of new elements and the retrofit of existing elements. The full structural upgrade and seismic rehabilitation scope of work, and supporting structural calculations, will be submitted in the construction application.

Superstructure System

The existing combination of wood and steel gravity-framing system will be maintained and retrofit as required to support all code-level gravity loads. In particular, in some areas of the building, the gravity loads for the proposed use (corridors; study areas) are higher than those for the previous use (offices). The existing wood joists, steel beams, and steel columns will be evaluated for the current loading conditions and will be retrofit as needed.

All existing interior lateral elements – plywood shear walls and steel braces – will be removed and therefore are not included as part of the proposed retrofit lateral force-resisting system.

The new lateral system will be new concrete masonry unit (CMU) shear walls that will typically consist of 8" thick CMU blocks, fully reinforced and grouted. In limited locations, 12" thick CMU blocks, fully reinforced and grouted, will be used. The new CMU shear walls will be located as shown on the First, Second, and Third Floor and Low Roof Plans, S2.01, S2.02, and S2.03. Existing fin walls that are greater than four feet in length and all stairwell walls will be analyzed for their applied seismic forces, and existing capacities will be evaluated. If these walls are found to be inadequate, they will be amended in either one of two ways:

- 1) They will be structurally separated from the floor and roof diaphragms, using slip connections, to restrict the transfer of lateral loads to the walls; OR
- 2) They will be demolished.

All of the existing CMU fin walls at the south and east sides of the building (along gridlines 1, A, and A1), that are four feet in length are conservatively assumed to provide no strength or stiffness to the lateral

system. We expect that these walls will “go along for the ride” with the rest of the building, likely rocking on their foundations, but not significantly contributing lateral force resistance. The in-plane and out-of-plane connections of these walls to the diaphragms will be retrofitted to provide adequate anchorage of these walls.

We have created a computer model that includes the wood diaphragm stiffness and the stiffness of each new CMU wall, and existing CMU walls noted previously, to accurately model the distribution of shear forces to the new and existing walls. We have analyzed this model using the linear dynamic procedure and have found that the existing walls are inadequate. Therefore, they will either be demolished or slip joints will be introduced to structurally separate the walls from the diaphragm and restrict the walls from receiving in-plane lateral loads. Going forward with the design, demolished walls and walls with slip joints will be removed from the analysis model so that lateral loads are appropriately distributed to only the walls that are structurally tied into the diaphragm. The analysis and design will use a flexible diaphragm model and the linear static procedure, as noted in the design criteria. It should be noted that slip joints will be designed to coordinate with wall out of plane anchorage.

In-situ material properties of the existing walls will be required; data for these properties will be collected as detailed in Section 5.0 Data Collection, which follows. Existing walls that are included as part of the lateral force resisting system will be tested as prescribed by ASCE 41-13 for structural walls. For the short, fin walls that are not included in the seismic lateral force resisting system design, the extent of material testing will be limited to a level similar to that of a nonstructural wall system. These walls are divided into two types: 8” CMU wall piers and 12” CMU wall piers, and the testing extent prescribed in section 11.2.3.9.3 is for each wall TYPE rather than each wall line. This approach provides a more pragmatic method to develop the material testing plan and is consistent with the assumption that these walls do not contribute to the lateral force resisting system.

The proposed new CMU shear wall system provides adequate stiffness to limit the building drift in consideration of the existing seismic joint between the BCC building (2118 Milvia Street) and the adjacent building on Center Street. The seismic joint between the two buildings is approximately 4” per rough field measurement. Preliminary calculations show that the BCC low roof expected drift is approximately 2”, that is, the BCC roof drift is about half of the building separation joint, and therefore, meets the requirements of ASCE 41-13. We also note that the adjacent building on Center Street is a reinforced concrete shear wall building and therefore we expect it to be relatively stiff as compared to the BCC building.

Existing plywood roof and floor diaphragms will also be utilized in the lateral force-resisting system. The addition of blocking and new nailing will be required at the second floor, the third floor/low roof and the high roof diaphragms, as shown on the plans. Note that the existing topping slab will be removed as required to install new nailing and will be replaced with a similar gypcrete material. The topping slab will be accounted for in the seismic mass but will not be considered to contribute to the strength or stiffness of the diaphragm. Reinforcement of existing steel beams and existing wood joists and their connections will also be required along the shear wall lines (collectors).

Ground Floor and Foundations

The existing ground floor reinforced concrete slab on grade will be removed and replaced as required to allow the installation of new footings and existing footing reinforcement as described below.

Existing reinforced concrete spread footings and reinforced concrete drilled piers will be analyzed for all applied gravity loads and upgraded if required. New concrete grade beams will be added below all new

CMU shear walls. Where a shear wall coincides with an existing spread footing, the footing will be upgraded to support all gravity and seismic loads.

Existing and New CMU Wall Anchorage

In addition to the upgrades to the lateral force-resisting system, additional anchorage is required to tie the existing CMU walls to the second floor and roof to assure that these walls are secure for out-of-plane (OOP) seismic forces. New wall anchors - consisting of holdowns that are nailed to existing framing or new blocking and epoxy-anchored to the existing walls – will be added as required at all existing CMU walls.

At existing CMU stairwell and fin walls, the walls project beyond the edge of the diaphragm. At these locations, the existing framing beam that connects the stairwell walls to one another will be evaluated for the wall OOP anchorage and cross tie forces and the beams and their wall connections will be reinforced as needed. We will demonstrate that the load path tying these walls back to the main diaphragm exists and is adequate (or retrofit) to resist the wall OOP forces. Retrofit elements may include added chord ties and connections at the interior ends of the walls, and increased diaphragm nailing between projecting wall lines.

Additionally, new, perimeter CMU walls will be anchored to existing roof and floor diaphragms. All existing diaphragms will be evaluated to support the wall OOP loads and will be reinforced as needed to support these loads.

Non-Structural Elements:

General assumptions with respect to the extent and nature of the improvements to the building, including information derived from the site visit and from the DSA Preliminary Conferences are incorporated in the following summary update. ASCE 41-13, Chapter 13 has been used as a guide in determining which existing non-structural elements can be strengthened and retained, and which will be replaced in their entirety. For non-structural elements that will remain, the elements will be observed and tested per Section 5.0 of this report; elements that do not meet the strength and drift requirements of ASCE 41-13 Chapter 13 will be retrofit or replaced to meet them. The nonstructural design objectives are N-B (position retention) at BSE 1E and N-D (not considered) at BSE-2N:

Architectural Elements:

With the exception of stairs, and elevator enclosures, the non-structural elements of the interior such as partitions and ceilings will be demolished and constructed new per California Building Code (CBC) 2016.

The building will receive a new roof system after structural diaphragms are strengthened. Equipment screens and roof level guardrails will be removed and replaced.

Existing storefront and glazing system to be replaced. The new storefront installation will utilize compensation channels to accommodate deflection and safety glazing will be provided per CBC.

Windows

Narrow operable windows will be modified to meet requirements for safety glazing. The existing window systems and their attachments will be observed and tested per Section 5.0 of this report; elements that do not meet the strength and drift requirements of ASCE 41-13 Chapter 13 will be retrofit or replaced to meet them.

Exterior Cladding

The exterior cladding consists primarily of exposed structural CMU walls, storefront glazing systems, and Portland cement plaster (PCP) finished walls. Many of the PCP walls will be modified as a result of the replacement of storefront glazing systems. Additional areas of PCP wall finish will occur where new non-loadbearing exterior walls are constructed per CBC 2016 associated with the replacement of storefront glazing systems.

The strength and drift requirements for the exterior cladding elements will be evaluated as follows:

- 1) CMU walls – these are described above, in the structural elements section
- 2) Storefront glazing systems – to be replaced to meet current code requirements
- 3) Stud-framed, PCP finished walls (spandrel elements) – all of these elements are spandrels. Refer to details 23 and 24 on S6. Each spandrel attaches to only one floor and therefore, the spandrels do not need to be evaluated to accommodate inter-story drift requirements. Their attachments will be investigated per Section 5.0, then evaluated and retrofit as needed for the strength requirements of ASCE 41-13 Chapter 13.

Stairs

The two existing enclosed stairs are concrete treads and metal risers supported by steel stringers. The stair enclosure consists of CMU walls which provide a 2-hour fire rated enclosure.

Stair handrails and guardrails do not meet current code requirements for height. The railings will be replaced with new or modified to meet current CBC requirements.

Elevator

The existing elevator was installed in 1995. The unit is in relatively good condition, and is assumed to require modernization but not replacement.

Verification and possible strengthening of the guiderail and its attachment will be required. Elevator components will be evaluated per ASCE 41 Section 13.8.6.3.2.

Fire Suppression System

The existing building is not provided with a complete fire sprinkler system. A new fire water service will require a new connection to the street, with associated street and sidewalk repairs. The riser and system will be new and provided per current CBC and CFC requirements to provide full sprinkler coverage per CBC and NFPA 13 requirements and will be braced in accordance with current code.

Plumbing

An increase in the number of restroom fixtures will be required to meet California Code requirements based on occupancy. The layout assumes that the restrooms will be expanded at their current location to utilize the existing sewer connection. All above-grade plumbing will be new, installed and braced in accordance with current code.

All water heaters will be new, installed and braced in accordance with current code.

Mechanical

Existing rooftop HVAC systems will be removed and replaced with new units mounted in accordance with current code requirements. All units will be installed on new curbs which will raise them to provide effective flashing.

Distribution ductwork will be entirely new, supported and braced per CBC and SMACNA guidelines.

Electrical and Telecommunications

The existing service is adequately sized for the proposed program. Panelboards, power, and lighting systems will generally be new throughout. The attachment of any existing panelboards to remain can be visually confirmed and upgraded if required to meet current code.

Lighting fixtures will be installed and braced in accordance with current code.

Existing telecommunications racks may be retained if their configuration is determined to be appropriate. If retained, their attachment to structure is exposed and can be confirmed to comply with current code.

Potential Structural Deficiencies Table

The following Potential Structural Deficiencies Table provides a summary of existing structural elements to remain, potential loading conditions, potential deficiencies, and proposed mitigation for each.

Potential Structural Deficiencies Table

	(E) Element Description	Potential Loading Condition	Potential Deficiency	Proposed Mitigation
1	Plywood roof & floor diaphragms	Seismic: increased diaphragm shear Seismic: increased sub-diaphragm shear for CMU OOP wall anchorage	Shear overstress	Add nailing and blocking
2	Plywood high roof & 2 nd floor diaphragm connection to wall or collector	Seismic: increased connection force at re-entrant corner condition	Connection overstress	Add collectors; add diaphragm nailing
3	Wood roof joists and beams	Wind: increased wind uplift	Bending overstress	Reinforce with sister joists
4	Wood floor joists and beams	Gravity: increased LL	Bending overstress	Reinforce with sister joists
5	Wood floor joists and beams supporting discontinuous shear walls	Gravity: increased LL Seismic: added seismic load	Bending overstress	Add new steel beam
6	Wood roof & floor joist and beam chords & collectors	Gravity: increased LL (floor only) Seismic: added seismic load	Combined axial + bending overstress	Add new steel collector
7	Wood roof & floor joist sub-diaphragm chords	Gravity: increased LL (floor only) Seismic: added seismic load	Combined axial + bending overstress	Reinforce joist end connections with steel straps.
8	Steel WF beams	Gravity: increased span and/or increased LL	Bending overstress	Reinforce with steel plates or steel WT
9	Steel WF beams supporting discontinuous shear walls	Gravity: increased span and/or increased LL Seismic: added seismic load	Bending overstress	Reinforce with steel plates or steel WT
10	Steel WF beam chords & collectors	Gravity: increased span and/or increased LL	Combined axial + bending	Reinforce with steel plates or steel WT

		Seismic: added seismic load	overstress	
11	Steel WF beam chord & collector hinge connections	Gravity: increased span and/or increased LL Seismic: added seismic load	Bending stability; axial overstress	Reinforce with steel plates or steel WT
12	Steel WF beam chord & collector beam to column connections	Gravity: column removal and/or increased LL Seismic: added seismic load	Bending stability; axial overstress	Reinforce with steel plates or steel WT
13	Steel pipe and WF columns	Gravity: increased tributary area and/or increased LL Seismic: added seismic load	Axial overstress	Add new steel column and/or reinforce existing column with steel plates
14	Reinforced concrete spread footings	Gravity: increased tributary area and/or increased LL Seismic: added seismic load	Exceed soil capacities; footing bending and/or shear overstress	Add new reinforced concrete grade beams; reinforce existing footings by increasing length, width, and depth.
15	Reinforced concrete piers	Gravity: increased LL Seismic: added seismic load	Exceed soil capacities; footing bending and/or shear overstress	Add new reinforced concrete grade beams; add new micropiles
16	Line E and Line 8 CMU shear walls	Seismic: increased seismic loads due to more stringent design criteria	Shear overstress; Bending overstress	Add new CMU walls (to reduce loading to (E) walls)
17	CMU wall out of plane (OOP) anchorage	Seismic: increased seismic loads due to more stringent design criteria	Anchor failure (likely tension pull-out)	Add new OOP anchors; reinforce existing anchors
18	CMU wall out of plane (OOP) anchorage – cross-ties & connections	Seismic: added seismic loads due to more stringent design criteria	Axial overstress	Reinforce existing wood cross ties and their connections; reinforce existing steel beam cross ties and their connections

4.0 Design Criteria and Proposed Methodology

Governing Building Code:	Title 24, California Building Code (CBC), 2016 Edition
Applicable CEBC Sections:	Sections 317 to 323
Occupancy:	DSA SS/CC, Risk Category III
Vertical Live Loads:	Exits, Stairs, and Corridors: 100 PSF Classrooms: 40 PSF Office Floors: 50 PSF Roofs: 20 PSF
Wind Loads:	Design Wind: 115 MPH Exposure: C
Seismic Loads:	Seismic Importance Factor: 1.25 Site Class: D Seismic Design Category: E Seismicity Level: High

Design Objectives per CEBC Table 317.5 and Seismic Design Parameters per Site Specific Hazard Assessment (Reference Geotechnical Investigation and Foundation Design by Terraphase Engineering, Inc., dated 6/9/17):

Level 1
 BSE-1E (20% in 50 years)
 S-3 (life safety)
 N-B (position retention)
 $S_{XS} = 1.22 \text{ g}$
 $S_{X1} = 0.80 \text{ g}$
 $T_0 = 0.131 \text{ s}$
 $T_s = 0.656 \text{ s}$
 $T = 0.29 \text{ s}$
 $S_a = 1.24 \text{ g}$
 $C_1C_2 = 1.4$
 $C_m = 1$
 $V = 1.74 \text{ W}$

Level 2
 BSE-2N (MCE_R)
 S-5 (collapse prevention)
 N-D (not considered)
 $S_{XS} = 2.10 \text{ g}$
 $S_{X1} = 1.91 \text{ g}$
 $T = 0.29 \text{ s}$
 $S_a = 2.24 \text{ g}$
 $C_1C_2 = 1.4$
 $C_m = 1$
 $V = 3.14 \text{ W}$

Foundations: Reference Geotechnical Investigation and Foundation Design by Terraphase Engineering, Inc., dated 6/9/17

Shallow Foundations:

Dead Loads: 3,300 PSF
Dead + Live Loads: 5,000 PSF
Dead + Live + Seismic or Wind Loads: 6,500 PSF

Existing Pier Foundations:

Vertical and lateral capacities to be determined based on pier assessment and testing data; see Section 5.0 Data Collection.

Applicable Reference Standards:

ASCE 7-10
ACI 318-14
AISC 341-10 and AISC 360-10
ASCE 41-13
ANSI/AWC NDS-2015
AWC SDPWS-2015
TMS 402-2013

The retrofit design uses the Linear Dynamic Procedure (LDP) with a semi-rigid diaphragm model for the evaluation of specific existing CMU walls, that is, the existing walls around the stairwells and longer fin walls. The retrofit design uses the Linear Static Procedure (LSP) with a flexible diaphragm model for the design of new walls and evaluation/retrofit of existing CMU walls on line E and 8, considering that none of the other existing CMU walls will participate in the retrofit lateral system (see further description in Section 3.0 above). These procedures will be per ASCE 41-13, as required by Section 320 (Method A) of the CEBC. Method B will not be used.

The primary lateral force resisting components will be checked and / or retrofitted to meet the above cited criteria. Pseudo-Lateral forces in each component will be computed and compared against nominal strengths as determined from available data with modifications as stipulated in ASCE 41-13. Components that are found to be deficient will be retrofitted or replaced to satisfy the load demands as necessary. The evaluation and strengthening of deformation-controlled components will include an "m" factor; for force-controlled components, the "j" factor will be included. The design of CMU wall out of plane anchorage is a special case, and will be designed for the Level 2 criteria, using the F_p force level per ASCE 41-13 Section 7.2.11.1, with no reduction (that is, $j = 1$). New elements will be detailed to comply with the 2016 CBC and the relevant material code requirements.

5.0 Data Collection

Per the 2016 CBC, Part 10, Section 319.2 item 3, the comprehensive level of data collection is required for this conversion of a nonconforming to a conforming building. Comprehensive material testing and comprehensive condition assessment in accordance with ASCE 41-13 will be required. The results of this testing and assessment will be submitted to DSA before final approval of the Design Application. There are no material properties in the existing drawings and no material test results are available from the original construction. Existing material properties derived from the condition assessment and materials testing program will be used in the analysis and upgrade design of the building structure.

A summary of the condition assessment and materials testing requirements for each material type and material era follows. The test type and frequency are listed for each component. Note that, per ASCE 41-13 “comprehensive testing” sections of each material chapter, the test results must be compared to the ASCE 41-13 default values or values specified in the original drawings. As prescribed in ASCE 41, if deviations are found between the test results and the default or specified values, the number of tests noted below shall be DOUBLED. All existing element descriptions are per the 1966 structural drawings by L.L. Freels and Associates, unless noted as “1995 drawing,” which refers to the 1995 structural drawings by Paul F. Fratessa Associates, Inc.

See the following table for specified material properties of existing materials from the 1966 and 1995 construction:

Material	Specification/Grade	Lower Bound Strength	Reference
1966 Concrete	None	$f'_c = 2750$ psi	ASCE 41-13 Table 10-2
1966 CMU	None	$f'_m = 1350$ psi x 0.9	ASCE 41-13 Table 11-2B
1966 Reinforcing Steel	Structural (Assumed)	$F_y = 33$ ksi	ASCE 41-13 Table 10-4
1966 Sawn Lumber (joists)	DF-L No. 1 or Better	$F_b = 1200$ psi	1967 UBC Table 25-A
1966 Structural Steel Structural, Misc. WF Beams	ASTM A-36 (Group 4 assumed) ASTM A-36 Group 1	$F_y = 37$ ksi	ASCE 41-13 Table 9-1
		$F_y = 44$ ksi	ASCE 41-13 Table 9-1
1995 Structural Steel Structural, Misc. Tubes	ASTM A-36 (Group 4 assumed) ASTM A 500 Gr. B	$F_y = 37$ ksi	ASCE 41-13 Table 9-1
		$F_y = 46$ ksi	AISC Table 2-4
1995 Epoxy Anchors	Hilti	3000 # tension	1995 Fratessa Structural Drawings (Pullout Test Specification)
1995 Steel Bolts	ASTM A307	$F_u = 60$ ksi	AISC Table 2-6

Existing material lower bound strengths will be updated when the DSA approval of the results of material testing are available. The mean of tested material strengths will be considered Expected strengths. Those will then be converted to the Lower Bound strengths by subtracting one standard deviation. Those tested lower bound strengths will be compared to the lower bound values (default or specified) noted in the table above. If the lower bound strengths derived from the tests are lower than the default or specified lower bound values, then the number of tests specified for each material in the following summary tables will be DOUBLED.

Refer to Appendix B: Structural Plans for Material Testing and Assessment and Repair for the specific locations of the testing and assessment items notes below.

EXISTING MATERIAL PROPERTIES AND TESTING FOR STEEL PER SECTION 9.2.2

Test Description (ASCE 41-13 Section 9.2.2.1.1)

The following component and connection material properties shall be obtained for the as-built structure:

1. Yield and tensile strength of the base material;
2. Yield and tensile strength of the connection material; and
3. Carbon equivalent of the base and connection material.

See the following table for the number of tests:

Component	Description of Existing Element	Testing Requirement
Steel WF columns	14W87 Fy not specified	3 coupons
Steel pipe columns	5" ϕ STD (1 st), 4" ϕ STD (2 nd), 3" ϕ STD (3 rd) Fy not specified	3 coupons
Steel WF beams and girders	14WF30, 14WF87, 10WF21 Fy not specified	3 coupons of EACH of these 3 shapes (9 coupons total)
Steel WF beam and girder to WF column connections	Refer to detail 15/S5. Connection Angles, Bolts Fy not specified	3 coupons of connection plate, one sample of weld metal and 3 bolts sampled
Steel WF girder splice connections	Refer to details 2 & 15/S6. Splice Plate, Bolts Fy not specified	3 coupons of connection plate, one sample of weld metal and 3 bolts sampled
Steel column base plates and anchor bolts at 3rd Floor	Refer to detail 15/S6. Fy not specified	3 coupons of connection plate, one sample of weld metal and 3 anchor bolts sampled

Steel column base plates and anchor bolts at 2nd Floor	Refer to detail 15/S6. Fy not specified	3 coupons of connection plate, one sample of weld metal and 3 anchor bolts sampled
Steel column base plates and anchor bolts at Foundation	Fy not specified	3 coupons of connection plate, one sample of weld metal and 3 anchor bolts sampled
Steel WF10 to WF14 connections	Refer to detail 15/S6. Splice Plate, Bolts Fy not specified	3 coupons of connection plate, one sample of weld metal and 3 bolts sampled.
Miscellaneous connection plates at wood joist connections to steel beams or CMU walls, shown on 1966 drawing S6	Refer to details 3, 17, & 20/S6 Fy not specified	3 coupons
Steel plate straps shown on 1995 wall anchor details	Refer to details 1/S3 and 1/S4 Fy not specified	3 coupons
Cold-formed steel studs	Refer to details 23 & 24/S6 Fy not specified	3 coupons

Where referenced in the above table, weld metal samples should include a composite base metal and weld metal sample. Additionally, the results of material testing to be compared with the ASCE 41-13 default values. If the material tests show weaker than default strengths, the frequency of testing should be doubled compared to that shown here.

EXISTING MATERIAL CONDITION ASSESSMENT FOR STEEL PER SECTION 9.2.3

Assessment Description (ASCE 41-13 Sections 9.2.3.1 and 9.2.3.2.2)

General Condition Assessment

1. Examine the physical condition of primary and secondary components
2. Verification of the presence and configuration of structural elements and connections

At least three connections of each type shall be exposed for the primary structural components. If no deviations within a connection group are observed, the sample shall be considered representative. If deviations within a connection group are observed, then additional connections shall be exposed until the extent of deviations is determined.

See the following table for number of observations:

Component	Description of Existing Element	Observation Requirement
Steel WF columns	14W87	-Confirm physical dimensions -Examine for degradation
Steel pipe columns	5" ϕ STD (1 st), 4" ϕ STD (2 nd), 3" ϕ STD (3 rd)	-Confirm physical dimensions -Examine for degradation
Steel WF beams and girders	14WF30, 14WF87, 10WF21	-Confirm physical dimensions -Examine for degradation
Steel WF beam and girder to column connections	Welded and Bolted shear plate connections	-Confirm physical dimensions -Examine for degradation -At least three connections of each type shall be exposed
Steel WF girder splice connections		-Confirm physical dimensions -Examine for degradation -At least three connections of each type shall be exposed
Steel column base plates and anchor bolts at 3rd Floor		-Confirm physical dimensions -Examine for degradation
Steel column base plates and anchor bolts at 2nd Floor		-Confirm physical dimensions -Examine for degradation
Steel column base plates and anchor bolts at Foundation		-Confirm physical dimensions -Examine for degradation

Cold-formed steel studs	Refer to 1966 drawing details 23 & 24/S6	-Measure physical dimensions - Determine gage -Examine for degradation
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EXISTING MATERIAL CONDITION ASSESSMENT FOR MASONRY PER SECTION 11.2.2

Test Description (Section 11.2.2.2)

Nondestructive tests shall be permitted to quantify and confirm the uniformity of construction quality and the presence and degree of deterioration for comprehensive data collection, including but not limited to the following:

1. Ultrasonic or mechanical pulse velocity to detect variations in the density and modulus of masonry material and to detect the presence of cracks and discontinuities; Ultrasonic methods are not useful if the masonry is of poor quality.
2. Impact-echo tests to confirm whether reinforced walls are grouted;
3. Radiography to confirm location of reinforcing steel and locations and lengths of reinforcement splices;
4. Infrared thermography to detect the extent of voids in masonry walls and the locations of grouted and un-grouted cells.

See the following table for the location and number of tests, per Section 11.2.3.9.3.

Component	Testing/Observation Requirement	Testing/Observation Requirement
8" CMU wall – Line E (approx. 4000 sf of wall surface)	Size of CMU blocks, extent of grouting (appears to be fully grouted), and size & spacing of reinforcement shown in drawings. Location and length of vertical and horizontal reinforcement splices. No material specs in drawings. No reinforcement splices shown in drawings.	Min of 6 tests
8" CMU wall – Line 8 (approx. 1700 sf of wall surface)	Size of CMU blocks, extent of grouting (appears to be fully grouted), and size & spacing of reinforcement shown in drawings. Location and length of vertical and horizontal reinforcement splices. No material specs in drawings. No reinforcement splices shown in drawings.	Min of 2 tests
8" CMU stairwell wall – Line C7 (approx 650 sf of wall surface)	Size of CMU blocks, extent of grouting (appears to be fully grouted), and size & spacing of reinforcement shown in drawings. Location and length of vertical and horizontal reinforcement splices. No material specs in drawings. No reinforcement splices shown in drawings.	Min of 2 tests

8" CMU stairwell wall – Line D (approx 650 sf of wall surface)	Size of CMU blocks, extent of grouting (appears to be fully grouted), and size & spacing of reinforcement shown in drawings. Location and length of vertical and horizontal reinforcement splices. No material specs in drawings. No reinforcement splices shown in drawings.	Min of 2 tests
8" CMU stairwell wall – Line 5 (approx 650 sf of wall surface)	Size of CMU blocks, extent of grouting (appears to be fully grouted), and size & spacing of reinforcement shown in drawings. Location and length of vertical and horizontal reinforcement splices. No material specs in drawings. No reinforcement splices shown in drawings.	Min of 2 tests
8" CMU stairwell wall – Line 5.5 (approx 650 sf of wall surface)	Size of CMU blocks, extent of grouting (appears to be fully grouted), and size & spacing of reinforcement shown in drawings. Location and length of vertical and horizontal reinforcement splices. No material specs in drawings. No reinforcement splices shown in drawings.	Min of 2 tests
8" CMU exterior cladding wall: 3'8" long-piers, located at south and east building facades (8 wall piers @ 133 sf each and 10 wall piers @ 89 sf each = approx. 2000 sf of wall surface)	Size of CMU blocks, extent of grouting (appears to be fully grouted), and size & spacing of reinforcement shown in drawings. Location and length of vertical and horizontal reinforcement splices. No material specs in drawings. No reinforcement splices shown in drawings.	Min of 2 tests TOTAL representing all wall piers of this type
12" CMU exterior wall piers located at east building entrance (2 wall piers @ 133 sf each = approx. 266 sf of wall surface)	Size of CMU blocks, extent of grouting (appears to be fully grouted), and size & spacing of reinforcement shown in drawings. Location and length of vertical and horizontal reinforcement splices. No material specs in drawings. No reinforcement splices shown in drawings.	Min of 2 tests TOTAL representing all wall piers of this type

AT EACH ASSESSED LOCATION,

Condition of existing masonry should be classified as Good, Fair, or Poor. If the components are found to be deteriorated, or damaged, the knowledge factor may need to be reduced to 0.75.

EXISTING MATERIAL PROPERTIES AND TESTING FOR MASONRY PER SECTION 11.2.3

Test Description (Section 11.2.3.1):

The following properties shall be obtained:

1. Masonry compressive strength – prism tests (see below) OR per TMS 402
2. Elastic modulus for masonry – determine per TMS 402, that is, no testing required
3. Not used.
4. **NOT USED**

Component	Description of Existing Element	Testing/Observation Requirement
CMU wall – Line E (approx. 4000 sf of wall surface) Masonry compressive strength	No material specs in drawings.	Min of 2 tests; test prisms shall be extracted from an existing wall & tested in accordance with Section 1.4.B.3 of TMS 602
Reinforcing steel – Line E CMU wall	Fy not specified	Min of 2 tests per section 10.2.2.4.2.3; Remove samples for tension testing in accordance with ASTM A615.
CMU wall – Line 8 (approx. 1700 sf of wall surface) Masonry compressive strength	No material specs in drawings.	Min of 6 tests; test prisms shall be extracted from an existing wall & tested in accordance with Section 1.4.B.3 of TMS 602
Reinforcing steel – Line 8 CMU wall	Fy not specified	Min of 3 tests per section 10.2.2.4.2.3; Remove samples for tension testing in accordance with ASTM A615.
2 8" CMU stairwell wall – Line (approx 650 sf of wall surface) Masonry compressive strength	No material specs in drawings.	Min of 2 tests; test prisms shall be extracted from an existing wall & tested in accordance with Section 1.4.B.3 of TMS 602
Reinforcing steel - 8" CMU stairwell wall – Line 2	Fy not specified	Min of 3 tests per section 10.2.2.4.2.3; Remove samples for tension testing in accordance with ASTM A615.

8" CMU stairwell wall – Line A7 (approx 650 sf of wall surface) Masonry compressive strength	No material specs in drawings.	Min of 2 tests; test prisms shall be extracted from an existing wall & tested in accordance with Section 1.4.B.3 of TMS 602
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Reinforcing steel - 8" CMU stairwell wall – Line A7	Fy not specified	Min of 3 tests per section 10.2.2.4.2.3; Remove samples for tension testing in accordance with ASTM A615.
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8" CMU exterior cladding wall: wall piers, located at south and east building facades approx. 2700 sf of wall surface) Masonry compressive strength	No material specs in drawings.	Min of 2 tests; test prisms shall be extracted from an existing wall & tested in accordance with Section 1.4.B.3 of TMS 602
Reinforcing steel – 8" CMU exterior cladding wall piers, located at south and east building facades	Fy not specified	Min of 3 tests per section 10.2.2.4.2.3; Remove samples for tension testing in accordance with ASTM A615.
12" CMU exterior wall piers located east building entrance (2 wall piers @ 133 sf each = approx. 266 sf of wall surface) Masonry compressive strength	No material specs in drawings.	Min of 2 tests; test prisms shall be extracted from an existing wall & tested in accordance with Section 1.4.B.3 of TMS 602
Reinforcing steel – 12" CMU exterior wall piers	Fy not specified	Min of 3 tests per section 10.2.2.4.2.3; Remove samples for tension testing in

located east building entrance		accordance with ASTM A615.
CMU wall tie epoxy anchors from 1995 upgrade	See 1995 Drawing S3, Details 1, 2, and 3/S3.	For 3 different connections, perform tension pull tests of 3/4" ϕ adhesive anchor with 6-3/8" embedment to determine anchorage strength
CMU wall tie epoxy anchors from 1995 upgrade	See 1995 Drawing S3, Detail 1/S3.	For 3 different connections, perform tension pull tests of 3/4" ϕ adhesive anchor with 6-3/8" embedment (installed at an angle) to determine anchorage strength

Increase the frequency of testing if the COV results are higher than 25%, until the COV is brought to 25% or lower.

**EXISTING MATERIAL PROPERTIES AND TESTING FOR WOOD PER SECTION
12.2.2**

See the following table for the number of tests and observations:

Component	Description of Existing Element	Testing/Observation Requirement
Plywood floor diaphragms	5/8" plywood w/ edge nail 10d @6"oc and intermediate nail 10d@12"oc	At 3 random locations per floor, at 2 floors (6 total) determine species and grade by observing grade stamps or by sampling and testing; verify nailing.
Plywood roof diaphragms	3/8" plywood w/ edge nail 8d @6"oc and intermediate nail 8d@12"oc	At 3 random locations at high roof (3 total) determine species and grade by observing grade stamps or by sampling and testing; verify nailing.
2x & 4x Sawn lumber joists		- At 12 locations determine species and grade by observing grade stamps or by sampling and testing. - Verify physical dimensions for each joist size.
6x Sawn lumber beams		- At 3 locations determine grade by observing grade stamps or by sampling and testing. - Verify physical dimensions for each joist size.
Connection – wood joists to wood ledgers (joist hangers)	See Universal Joist Hanger specification on S8; Fy not specified.	At 3 locations, test 3 coupons of hanger plate.
CMU wall ties from 1995 upgrade <ul style="list-style-type: none"> blocking 	See 1995 Drawing S3, Detail 1/S3.	For 3 different connections, determine species and grade of blocking by observing grade stamps or by sampling and testing. - Verify physical dimensions of blocking.

EXISTING MATERIAL CONDITION ASSESSMENT FOR WOOD PER SECTION 12.2.3

Perform a comprehensive condition assessment for all primary structural components of the gravity and lateral-load-resistance system per Section 12.2.3.

See the following table for the location and number of observations:

Component	Description of Existing Element	Observation Requirement
Plywood floor diaphragms	5/8" plywood w/ edge nail 10d @ 6"oc and intermediate nail 10d@12"oc	At 3 random locations per floor, at 2 floors (6 total), examine for degradation.
Plywood roof diaphragms	3/8" plywood w/ edge nail 8d @ 6"oc and intermediate nail 8d@12"oc	At 3 random locations, examine for degradation.
Collector "drag" connections (1995 upgrade), see lines A2 and A5	See 1995 Drawing S3, Detail 4/S3.	For 3 different connections of each connection type, confirm physical dimensions, examine for proper installation, examine for degradation.
CMU wall ties from 1995 upgrade <ul style="list-style-type: none"> holdowns 	See 1995 Drawing S3, Details 2, and 3/S3.	For 3 different connections of each connection type, confirm physical dimensions, examine for proper installation (that is, note the HD type and number, size, and spacing of the nails/bolts at HD; note the wall tie spacing), examine for degradation.
CMU wall ties from 1995 upgrade <ul style="list-style-type: none"> straps 	See 1995 Drawing S3, Detail 1/S3.	For 3 different connections, confirm physical dimensions, examine for proper installation (that is, note the number, size, and spacing of the nails at strap; note the wall tie spacing), examine for degradation.
CMU wall ties from 1995 upgrade <ul style="list-style-type: none"> blocking 	See 1995 Drawing S3, Detail 1/S3.	For 3 different connections, confirm physical dimensions, examine for degradation.
CMU wall ties from 1995 upgrade <ul style="list-style-type: none"> epoxy anchors SEE CMU SECTION	SEE CMU SECTION	SEE CMU SECTION
Cross tie steel beams and girders and connections. SEE STEEL SECTION	14WF30, 10WF21	Remove coverings for visual inspection for at least 3 different connections of each type.
Sawn lumber joists	2x12, 2x8, 4x	- At 3 random locations per floor, at 2 floors (6 total) confirm physical dimensions for each joist size and

		examine for degradation.
Sawn lumber beams	6x	- At 3 locations, confirm physical dimensions and examine for degradation.
Connection – wood 2x12 joists to steel girders	Refer to 1966 drawings detail 17/S6.	- Remove coverings for visual inspection for at least 3 different connections; document connection detail. - Examine for degradation
Connection – wood 2x8 joists to steel girders	Refer to 1966 drawings detail 20/S6.	- Remove coverings for visual inspection for at least 3 different connections; document connection detail. - Examine for degradation
Connection – wood 2x12 joists to wood ledgers (joist hangers)	See Universal Joist Hanger specification on S8	- Remove coverings for visual inspection for at least 3 different connections; document connection detail, including dimensions, hanger gage, and the type, size, and number of nails. - Examine for degradation
Connection – wood 2x8 joists to wood ledgers (joist hangers)	See Universal Joist Hanger specification on S8	- Remove coverings for visual inspection for at least 3 different connections; document connection detail, including dimensions, hanger gage, and the type, size, and number of nails. - Examine for degradation
Connection – wood wood ledgers to CMU walls (J bolts)	Refer to details 19 & 20/S8	- Remove coverings for visual inspection for at least 3 different connections <i>- Measure bolt diameter and bolt spacing</i>

Reduce knowledge factor to 0.75 if some deterioration of m construction.

EXISTING MATERIAL PROPERTIES AND TESTING FOR CONCRETE PER SECTION 10.2.

Test Description (Section 10.2.2.1)

1. Compressive Strength
2. Yield and ultimate strength of reinforcing

See the following table for the location and number of tests:

Component	Description of Existing Element	Testing Requirement
Spread and continuous foundations - concrete	f'c not specified	6 core tests

Spread and continuous foundations – steel reinforcement	fy not specified	3 locations
Drilled Piers	fc not specified	6 core tests
Drilled Pier Reinforcement	fy not specified	3 locations

If the coefficient of variation COV comes out to be higher than 20%, additional tests would be required until the COV comes out at or below 20%.

EXISTING MATERIAL CONDITION ASSESSMENT FOR CONCRETE PER SECTION 10.2.3.2.2.

Comprehensive condition assessment for existing concrete:

Component	Description of Existing Element	Testing Requirement
Spread and continuous foundations - concrete		At 4 locations, inspect existing concrete for deterioration.
Spread and continuous foundations - concrete		At 4 locations as noted on S1, determine wall/pier dowel size, spacing and embed into foundation.
Spread and continuous foundations - concrete		At 4 locations as noted on S1, determine rebar cover and rebar spacing
Drilled Piers - depth	Per 1966 drawing detail 3/S7 and results of Terraphase 2017 geotechnical investigation, pier depth is expected to be approximately 25 ft below grade.	At 2 ² locations (one pier at each end) * , verify pier depth by one of 3 possible methods: 1) Pulse/echo test; 2) Bore adjacent to piers for parallel seismic test or magnetometer location of rebar; 3) Core through center of pier
Drilled Piers – rebar length	Per 1966 drawing detail 3/S7, vertical rebar extends full depth of pier.	At 2 ² locations (one pier at each end) * , verify pier vertical rebar extent by boring adjacent to the piers and locating the rebar with a magnetometer (method (2) noted above).

Drilled Piers – rebar splice length	Per 1966 drawing detail 3/S7, vertical rebar extends full depth of pier.	At 2 locations (one pier at each end of line E);* verify pier vertical rebar splice lengths by boring adjacent to the piers and locating the rebar with a magnetometer (method (2) noted above), OR by other proposed method.
Drilled Piers – tie spacing	Per 1966 drawing detail 3/S7, ties are at a 12" vertical pitch	At 2 locations (one pier at each end of line E);* verify pier tie spacing by excavating adjacent to the pier and removing concrete to expose and visually assess the ties to a depth of two feet below the top of the pier.

Note that pier capacities that were provided in the geotechnical report were based on an assumed pier embedment and will be updated based on the results of the pier testing and assessment noted above.
 * FOR PIER ASSESSMENT, A THIRD ASSESSMENT LOCATION (AT E-4) WILL BE CONTINGENT ON THE RESULTS OF THE 2 PIER ASSESSMENTS,

REPAIR OF SAMPLED EXISTING STRUCTURAL ELEMENTS

All existing elements from which material samples have been extracted for testing shall be repaired in place to minimize any resulting loss of structural strength and stiffness of the existing element and per the repair notes and details in Appendix B.

NONSTRUCTURAL ELEMENTS

All existing partition walls, mechanical, electrical, and plumbing equipment and distribution systems will be removed and replaced, with anchorage and bracing to meet current code standards.

Nonstructural elements to be retained include:

- 1) Existing elevator – condition assessment and material testing as noted below;
- 2) Cladding system – combination of CMU walls and glazing
 - a. CMU walls – existing walls will be maintained; structural properties and out of plane wall anchorage to be observed and tested as noted in the previous section for structural elements;
 - b. Glazing –
 - i. approximately 90% of the existing windows will be removed and replaced with new windows that will have modern detailing to accommodate the building inter-story drifts;
 - ii. a limited number of existing windows (one type) will be retained as noted in the architectural drawings; these windows will be observed and assessed as noted below.

Direct visual inspection shall be performed on each type of nonstructural component in the building as follows:

1. For the windows: detailed drawings are not available, therefore, at least three occurrences of the window type to be retained shall be observed. If no deviations among the three occurrences are observed, the sample shall be considered representative of installed conditions. If deviations are observed, then at least 20% of all occurrences of the component shall be observed.

See the following table for the location and number of observations:

Component	Description of Existing Element	Observation Requirement
Elevator rails and anchorage; supports, connections, counterweight restraints		<ul style="list-style-type: none"> - Observe and document all rails, rail supports (if any), counterweight restraints, and connection and anchorage to structure - Examine all noted elements for degradation
Exterior Glazing System (Narrow Operable Windows only)		<ul style="list-style-type: none"> - Expose and document each type of glazing connection; 10% percent of each type of connection to be observed as noted above.
Exterior Stud Wall Spandrel with Portland Cement Plaster finish		<ul style="list-style-type: none"> - Expose and document each type of stud and each type of spandrel connection; 10% percent of each type of connection to be observed as noted above.
Interior Non-Bearing Walls Elevator Shaft Walls		<ul style="list-style-type: none"> - Expose and document each type of wall stud and connection; 10% percent of each type of connection to be observed as noted above.
Electrical panels and telecommunications data racks		<ul style="list-style-type: none"> - Expose and document each type of panel and rack bracing element and it's connection to the building structure; 10% percent of each type of connection to be observed as noted above.

ADJACENT BUILDINGS

Measure the clear distance to existing building to west of 2118 Milvia at each floor and roof level at both the north and south ends of the wall.

6.0 Appendix A

Conceptual structural plans, and existing structural drawings (1966 original and 1995 upgrade) are attached.

7.0 Appendix B

Structural plans for material testing and assessment and repair descriptions are attached.

Please refer to the drawings dated 6/29/18 for additional information. **Note that final development of the modifications to Stair 1 and Stair 2 based upon structural revisions discussed in the 6/22/18 meeting is not complete. Therefore, stairs as shown on A4.11 and A4.12 do not reflect the intent to increase handrail extensions where floor level landings are increased. These changes will be reflected when this set is submitted for review.**

Summary of Work

Because the classrooms are the largest proposed enclosed spaces, their walls can be established as shear walls. Additional wall locations are required to distribute the lateral force resisting systems within the building. These have been established based on the needed shear wall lengths.

On October 14, 2016, the design team undertook a day-long survey. This site visit allowed us the opportunity to confirm the building interior layout. Because drawings of existing mechanical, electrical, telecommunications, and plumbing systems are not available, this field visit was particularly important to identify the age, condition, and general routing of the building infrastructure.

Area and Type of Construction: The building is approximately 25,225 square feet in area; three stories in height; Type III B construction. The project will include provision of a new fire water system and a new sprinkler system throughout the building.

Occupancy: The basic Occupancy Group for community college is B. However, with several classrooms exceeding 50 occupants in each, both A-3 and B occupancies exist. We propose to treat these occupancies as un-separated. The building as a whole will be designed in conformance with the requirements for A-3, the more stringent occupancy.

Non-Structural Elements:

General assumptions with respect to the extent and nature of the improvements to the building, including information derived from the site visit and from the DSA Preliminary Conferences are incorporated in the following summary update. ASCE 41-13, Chapter 13 has been used as a guide in determining which existing non-structural elements can be strengthened and retained, and which will be replaced in their entirety. The nonstructural design objectives are N-B (position retention) and N-D (not considered) at BSE-2N:

Architectural Elements:

With the exception of stair and elevator enclosures, the non-structural elements of the interior such as partitions and ceilings will be demolished and constructed new per California Building Code (CBC) 2016.

- The building will receive a new roof system after structural diaphragms are strengthened.
- Existing equipment screens will be removed prior to re-roofing.
- New roof screens will be provided at these locations.

Initial Submittal: May 16, 2017
Revised February 27, 2018

July 11, 2018

Peralta Community College District

Berkeley City College - 2118 Milvia Street – REH Application #01REH-10075

REVISED Executive Summary - Non-Structural Upgrades Evaluation and Design Criteria Report

ACCESS COMPLIANCE; FIRE + LIFE SAFETY

Peralta Community College District and Berkeley City College have been seeking an existing building to provide expansion space for the growing population of the downtown Berkeley campus. In 2014, Noll & Tam was retained by the District to assess the suitability of the existing building at 2118 Milvia Street for conversion to classroom and supporting uses. The building was then in use by the City of Berkeley as offices for Building, Planning and Community Development, who continued to occupy the building until January 2017. 2118 Milvia Street was remodeled for the City offices in 1995, with the addition of some seismic upgrades.

Noll & Tam has been working with the College and District to develop a plan for use that meets the District's budget while providing much-needed additional classroom space to relieve crowding in its existing building, located at 2050 Center Street, less than one block away. In addition to the provision of additional instructional and support spaces, the emphasis of the renovation will be code compliance.

To meet current California requirements to house community college students and faculty, additional seismic strengthening will be required to meet California Field Act requirements for Community College use. In preparation, two Preliminary Conferences with DSA have taken place on February 22, 2016 and December 12, 2016. Structural comment review conferences with DSA have also taken place on November 21, 2017 and June 22, 2018. An Access Compliance comment review conference also took place on March 22, 2018.

To establish the structural capabilities of the existing building and provide a basis for the structural design, KPW has prepared a draft proposal for Materials testing in accordance with ASCE 41-13 procedures that has been submitted for DSA approval. Materials to be tested include: structural steel; concrete masonry units, and wood framing elements. The Testing Lab will be retained directly by the District.

The building layout will prioritize types of spaces that the College has identified as most urgently needed:

- Classrooms
- Multifunctional Conference/Meeting/Study Rooms
- Bookstore
- Health Center
- Offices

- Minor exterior decks exist at the third-floor level. The project will replace deteriorated waterproofing and address drainage issues.
- Deck guardrails generally conform to building code requirements, but their attachment to structure will be strengthened.
- Existing sliding glass doors will be removed and replaced by windows designed to permit key access for maintenance personnel only.

Glazing and Entrances:

DSA has noted that exterior glazing systems must have the deformation capability to accommodate structural movement in a seismic event. N&T and KPW have investigated the existing storefront and glazing system and have determined that replacement of the entire system will be required, with limited exceptions.

- Existing storefront systems will be replaced with a new, thermally broken storefront or curtainwall system, and high performance insulating glass. The storefront and curtainwall installations will utilize compensation channels to accommodate deflection.
- Existing steel framed wire glass windows on the north elevation will be removed and reduced in area so that fire resistive rated frames and glazing are not required for compliance with current code requirements.
- On the second and third floors, narrow windows may be retained with possible additional anchorage, and the addition of safety film to meet code requirements for safety glazing.

Roofing and Cladding:

- At the north and west elevations, existing CMU walls extend approximately 42 inches above the roof to serve as fire resistive parapets, required due to the proximity of property lines.
- The exterior cladding consists primarily of exposed structural CMU walls, storefront glazing systems, and Portland cement plaster (PCP) finished walls. Many of the PCP walls will be modified for replacement of storefront glazing systems. Additional areas of PCP wall finish will occur where new non-loadbearing exterior walls are constructed per CBC 2016 associated with the replacement of storefront glazing systems.
- The thermal performance of the building will be improved by adding roof insulation. The opportunity to improve the thermal performance of exterior walls will be minimal, due to the configuration of the exterior enclosure; however, furring with insulation will be added to the interior surfaces of exterior CMU walls to provide a thermal break.

Stairs:

- The open interior stair is not required for exiting and will be removed.

- The two existing enclosed stairs are constructed with concrete treads and metal risers supported by steel stringers. The existing stair enclosure consists of CMU walls which provide a 1-hour fire rated enclosure. This project proposes to preserve the CMU side walls, which limits the extent to which the existing stairs can be modified. The CMU end walls will be replaced with new 1-hour fire rated stud framed walls. The existing treads, risers, and intermediate landings are assumed to remain.
- Stair handrails and guardrails do not meet current code requirements for height. Handrails will be replaced to meet current requirements for profile, height, and extension. The existing guardrail has been modified by the addition of wire mesh to reduce the clearance between pickets; however, the guardrail height is not sufficient and will be increased to meet current CBC requirements.

Elevator:

The existing elevator was installed in 1995. The unit is in relatively good condition and is assumed to require modernization but not replacement. Verification and possible strengthening of the guiderail attachment is noted as part of the DSA requirements. The hydraulic elevator machine room will be relocated.

Plumbing:

All water heaters will be new, supported and braced per CBC.

Mechanical:

- Existing rooftop HVAC systems will be removed and replaced with new units mounted in accordance with current code requirements. All units will be installed on new curbs which will raise them to provide effective flashing. Distribution ductwork will be entirely new, supported and braced per CBC and SMACNA guidelines.
- The mechanical system will be designed to comply with California T24 requirements for energy efficiency and performance.

Electrical:

- The existing service is adequately sized for the proposed program. Switchgear, panelboards, power, and lighting systems will be new throughout.
- Lighting systems and controls will be designed to comply with California T24 requirements for energy efficiency and performance.

Telecommunications:

- The project is assumed to include provision of telecom infrastructure including dedicated MDF/IDF rooms. Equipment room racks and fittings will be installed to CBC seismic requirements.

DSA Procedure 08-03 Appendix C – Guidelines for Determining Fire & Life Safety and Accessibility

Requirements:

C.1 Fire & Life Safety Requirements:

- C.1.1** *Fire & Life Safety provisions shall apply strictly to area(s) of rehabilitation work within the scope of proposed improvements (2013 California Building Code (CBC), Chapter 34, Sections 3401.4.1 and 3412.2).*
- C.1.2** *Whatever portions of the building are demolished, new construction will be reviewed under current provisions of the CBC.*
- C.1.3** *In compliance with 2013 CBC, Section 3423.1 (1) applicant shall include in the “Evaluation and Design Criteria Report” the following information pursuant to the code edition applicable at the time of original plan approval.*
- a) *A complete building code analysis that includes construction type, building height and area, allowable building size increases, and occupancy group(s).*
- i **Please refer to Sheet G1.11. and as described above.**
- b) *Identify means of egress configuration and characteristics in the building. Information shall include dead-ends where two or more exits are required, and travel distances. Rehabilitation work that affects the means of egress may generate additional requirements.*
- i **Please refer to Sheet G1.12.**
- ii Three exits are provided.
- iii To comply with the requirements of CBC 1028.1, a fire-resistive rated vestibule will be created at the stairway exiting to Center Street.
- iv The second stair, leading to Milvia Street, may exit through the lobby in a fully sprinklered building.
- v The third exit, which also serves as the main building entrance, leads directly to the street.
- vi Under CBC Table 1017.2, 0-hour rated corridors are permissible in a fully sprinklered building where travel distances do not exceed code limitations.
- vii Stairs:
- The open interior stair is not required for exiting and will be removed.
 - The two existing enclosed stairs are constructed with concrete treads and metal risers supported by steel stringers. The existing stair enclosure consists of CMU walls which provide a 1-hour fire rated enclosure. This project proposes to preserve the CMU side walls, which limits the extent to which the existing stairs can be modified. The CMU end walls will be replaced with new 1-hour fire rated stud framed walls which will be constructed to maintain the rated enclosure. The existing treads, risers, and intermediate landings are assumed to remain. Reconstruction of the stair end walls will permit the top landing to be increased.

- Stair handrails and guardrails do not meet current code requirements for height. Handrails will be replaced to meet current requirements for profile, height, and extension. The existing guardrail has been modified by the addition of wire mesh to reduce the clearance between pickets; however, the guardrail height is not sufficient and will be increased to meet current CBC requirements.

viii Elevator:

- The existing elevator was installed in 1995. The unit is in relatively good condition and is assumed to require modernization but not replacement. The hydraulic elevator machine room will be relocated.
- DSA noted that the elevator is not currently sized to accommodate a gurney per current code. The District has presented this proposal to Berkeley Fire and has confirmed that the current configuration will be acceptable. Based on our preliminary conference discussion, DSA defers to the local jurisdiction regarding this issue. Berkeley Fire has approved the DSA 810 form confirming their acceptance.
- Smoke containment curtains will be added at the elevator doors on the second and third floors.
- Smoke detectors will be provided at each elevator lobby and in the new machine room. There are no sprinklers in the overhead or pit at this time and are not required by the elevator code.
- Shunt trip and heat detector will be provided in the new machine room, assuming sprinklers are required. If sprinkler is not required, then shunt trip and heat detector not required.
- 3 phase fused electrical circuit will be provided in the new machine room, located near the strike side of the new machine room door. Auxiliary contacts to signal battery lowering control will be included.
- Single phase fused electrical circuit will be provided in the new machine room.
- Pit lighting will be upgraded.
- GFCI outlets will be provided in pit and machine room.

c) *Identify location and type of fire rated construction; including corridor walls and vertical openings. Through membrane penetrations of rated systems will require a fire-rated fire stop system with the same or greater hourly rating as the violated rated construction.*

- i Please refer to Sheet G1.12.

- d) *Existing building fire rated components that require asbestos abatement within scope of work, shall be reconstructed with rated equivalent materials as needed to maintain fire-rating.*
 - i As a result of previous renovation projects, ADM's have been abated. All fire resistive rated systems will be new and will be constructed with materials that do not contain ACM's.
- e) *Identify existing individual room occupancy group as noted on the original approved plans. Identify if the occupancy group(s) have changed from the approved plans. Change of use in any room would require current code provisions to be met.*
 - i **Please refer to Sheet G1.12.**
- f) *Identify the HVAC systems ability to resist the movement of smoke and fire beyond the point of origin. HVAC systems that are impacted by the rehabilitation, and incorporate smoke detector shut down, shall be tested prior to approval of the project to verify correct operation of the system. In the event that the system does not function as originally designed, repairs or replacements will be required for the automatic shutdown feature.*
 - i The entire HVAC system will be replaced as part of this project. All work will conform to current code requirements.
- g) *Provide an evaluation of the fire alarm and fire suppression system features of the building. Where a system, or portion of a system, is temporarily removed to allow seismic upgrades, a complete test will be required of the system to verify correct operation of the system after it has been re-installed. Test(s) shall be in accordance with National Fire Protection Association Standards. In the event that the system or components of the system are found not operable, repairs or replacements will be required.*
 - i Fire alarm system will be completely replaced as part of the work of this project.
 - ii The existing building is not provided with a complete fire sprinkler system. A new fire water service will require a new connection to the street, with associated street and sidewalk repairs. The riser and system will be new and provided per current CBC and CFC requirements to provide full sprinkler coverage per CBC and NFPA 13 requirements. Full design will be submitted to DSA for review.

C.1.4 *Compliance alternatives may be considered as found in the 2013 CBC, Chapter 34, Section 34.12. Evaluations may trigger additional scope of work.*

- i None requested

C.2 **Access Compliance Requirements:** *The seismic repair of an existing facility is governed by 11B-202 of the 2013 CBC. In addition, in Legal Opinion No. 94-1109, dated May 10, 1995, the Attorney General for the State of California concluded that seismic strengthening work in an existing building constitutes a "building alteration, structural repair or addition" for purposes of providing access to the building for persons with disabilities.*

Because the primary use or function of the building or facility and/or design of specific rooms or spaces are altered, the seismic strengthening or upgrade work must comply with all applicable accessibility regulations for new construction. In addition, the obligation to provide an accessible primary entrance to the building or facility, and primary path of travel to the specific area of alteration, including sanitary facilities, drinking fountains, signs, and public telephones serving the area must be met.

- i **Please refer to Sheet G1.13 for building diagrams.**
- ii Accessibility improvements to all three building entrances will be required.
- iii Two entrances on Milvia Street are generally accessible and will be modified to the extent required to comply with current CBC Chapter 11B requirements.
- iv The third entrance on Center Street is approximately 15 inches above the sidewalk and will require reconfiguration of the stairs, railings, and security gates. However, it will not be possible to make this a wheelchair accessible entrance due to property line and public sidewalk constraints.
- v Stairs:
 - The open interior stair is not required for exiting and will be removed.
 - The two existing enclosed stairs are constructed with concrete treads and metal risers supported by steel stringers. This project proposes to preserve the CMU side walls, which limits the extent to which the existing stairs can be modified. The CMU end walls will be replaced with new 1-hour fire rated stud framed walls. The existing treads, risers, and intermediate landings are assumed to remain. Reconstruction of the stair end walls will permit the top landing to be increased and allow code compliant handrail extensions to be provided.
 - Stair handrails and guardrails do not meet current code requirements for height. Handrails will be replaced to meet current requirements for profile, height, and extension. The existing guardrail has been modified by the addition of wire mesh to reduce the clearance between pickets; however, the guardrail height is not sufficient and will be increased to meet current CBC requirements.
- vi Elevator:
 - The existing elevator was installed in 1995. The unit is in relatively good condition and is assumed to require modernization but not replacement. The hydraulic elevator machine room will be relocated.
 - Modernization will include a new door operator and new signal fixtures.
 - Existing decorative panels will be removed and replaced by stainless steel sheet directly attached to the car interior to provide compliant interior clearances.
- vii Plumbing:
 - An increase in the number of restroom fixtures will be required to meet California Code requirements based on occupancy. The layout assumes that the restrooms will be expanded at their current location to utilize the existing sewer connection. The new restroom layout will conform to CBC Chapter 11B requirements.
 - New drinking fountains will be provided and will be accessible.
- viii Signage:
 - Code-required signage will be new throughout and will comply with CBC Chapter 11B.
- ix Audio/Visual Systems:
 - Classroom instructional technology will include assistive listening capabilities.

This summary provides an overview of structural, fire/life safety, and accessibility improvements proposed as part of this project. If there are questions regarding the program and project scope, please don't hesitate to contact our office for further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Merideth Marschak", with a long horizontal flourish extending to the right.

Merideth Marschak, AIA
Principal, Noll & Tam Architects

CC: *Sharon Millman, Peralta Community College District, Project Manager*

Attachments:

Selected Photos

Preliminary Conference Notes

REVISED Drawing Set dated 6/29/18

DSA Form 810



2118 Milvia Street – existing building viewed from the southeast



2118 Milvia Street – existing main entry at east elevation



2118 Milvia Street – existing entry at south elevation, proposed egress only



2118 Milvia Street – existing entry at east elevation, proposed egress only



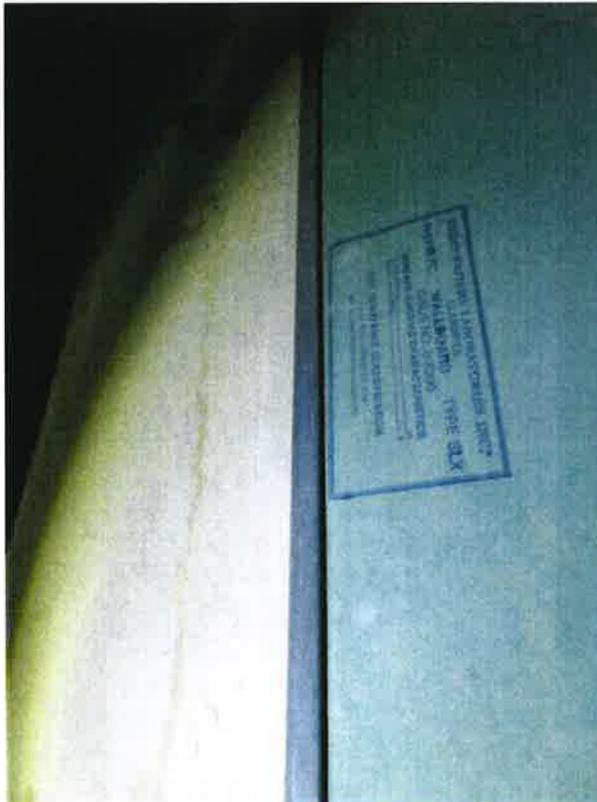
2118 Milvia Street – existing wire glass in steel frames at north elevation to be replaced



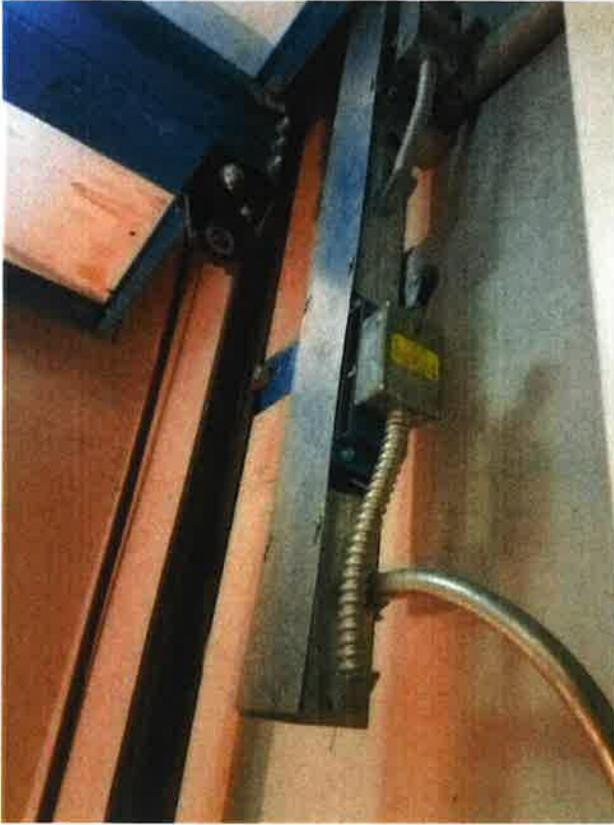
2118 Milvia Street – joint between west wall and adjoining building (1947 Center Street)



2118 Milvia Street – existing elevator door



2118 Milvia Street – existing elevator shaft wall construction



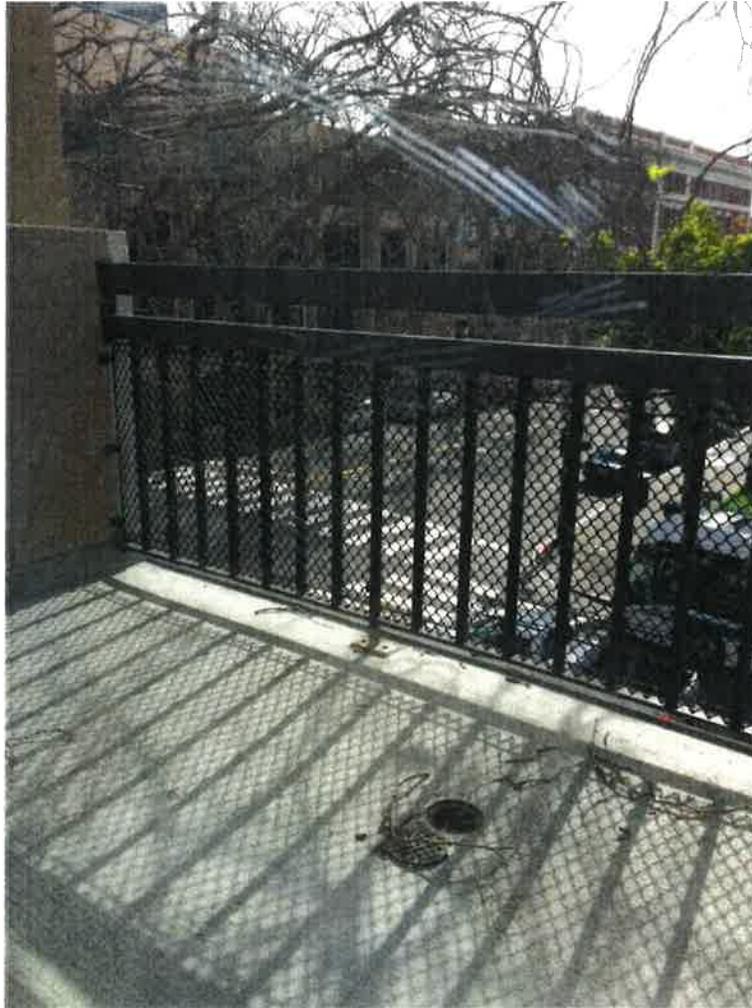
2118 Milvia Street – existing elevator guiderail attachment



2118 Milvia Street – existing elevator car platform



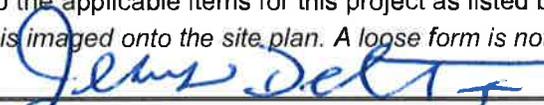
2118 Milvia Street – existing steel and concrete filled metal pan stair – guardrail to be replaced



2118 Milvia Street – existing deck – guardrail to be modified or replaced

LOCAL FIRE AUTHORITY REVIEW

To facilitate the Division of the State Architect's (DSA) approval of the Fire/Life Safety portion of a project, DSA requires Local Fire Authority (LFA) review of certain elements as identified in this form. Use of this form is mandatory for projects that add square footage to a campus or if any item on this form is relevant to the project. For additional information, see [DSA 810 Instructions](#) and [DSA Policy 09-01](#).

PROJECT INFORMATION					
School District/Owner: Peralta Community College District					
Project Name/School: Berkeley City College					
Project Address: 2118 Milvia Street, Berkeley CA, 94704					
LOCAL FIRE AUTHORITY (LFA)					
LFA Agency Name: Berkeley Fire Department					
LFA Reviewer Name: Jesus Del Toro			Title: F&LS Plans Examiner		
Email: JDelToro@CityofBerkeley.info			Telephone Number: 510-981-7447		
I have reviewed and responded to the applicable items for this project as listed below. Note: Only sign this form when it is imaged onto the site plan. A loose form is not acceptable to DSA.					
LFA Reviewer's Signature: 				Date: 07/06/18	
Review Key: "Y" = Complies with LFA requirements "N" = Not approved (complete Section 8) "NA" = Not applicable to the project "NR" = LFA elects not to review					
Description		Y	N	NA	NR
1	Where an elevator does not meet medical emergency service cab size, per the California Building Code (CBC), use of stairways for emergency rescue and patient transport is acceptable.	X			
2	Access roads, fire lane markings, pavers and gate entrances are in accordance with Title 19, California Code of Regulations and the California Fire Code, Chapter 5.	X			
3	Fire hydrant location and distribution complies with the California Fire Code (or see # 4).	X			
4	Fire hydrant location and distribution complies with NFPA 1142, "Alternate Means." If "NR" is checked, DSA can only approve on-site water storage as an alternate. The signature of the school district official is required to acknowledge the use of alternate means.	X			
Signature of School District Official: _____		Date: _____			
Print the School District Official's Name: _____					
5	The location(s) of the proposed post indicator valve and fire department connection meet the requirements of this jurisdiction.	X			
6	The location(s) of the detector check valve assembly meet the requirements of this jurisdiction.	X			
7	Is the project located in a hazard severity zone area? (CBC, Chapter 7A, Section 701A.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Check type if "Yes": <input type="checkbox"/> Moderate <input type="checkbox"/> High <input type="checkbox"/> Very High <input type="checkbox"/> WIFA (If one of these boxes is checked, the project design must meet the requirements of Chapter 7A.)				
8	COMMENTS (note deficiencies): Ensure the size of the check valve is adequate for the 5-inch storz.				

APPROVED
DIV. OF THE STATE ARCHITECT

AC KWen F/LS — SS —

APPL NO. 01-REH10075 DATE 8/7/2018

**NOLL
& TAM**
ARCHITECTS

July 11, 2018

Initial date April 17, 2018

Peralta Community College District

Berkeley City College - 2118 Milvia Street - REH Application #01REH-10075

REVISED Technical Infeasibility of Full Accessibility Compliance

Background

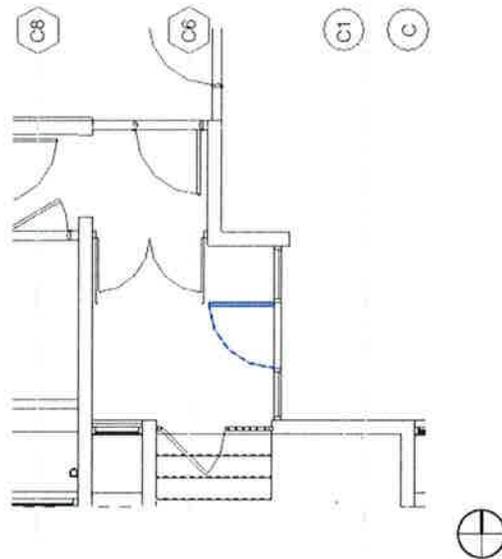
Noll & Tam has been retained by Peralta Community College District to develop a design to convert the existing building at 2118 Milvia Street in downtown Berkeley to classroom and support space for use by Berkeley City College. The building was most recently remodeled in 1995, and used by the City of Berkeley as offices for Building, Planning and Community Development, who continued to occupy the building until January 2017.

In preparation for the conversion, several Preliminary Conferences with DSA have taken place, the most recent being a Preliminary Review REH Access Compliance meeting with DSA Access Compliance on March 25, 2018, meeting notes, attached. To meet current California Building Code (CBC) 2016 Chapter 11B requirements, the new facility will be fully compliant, except as listed below. This letter will delineate the technical infeasibility of full compliance at one (of three) building exits.

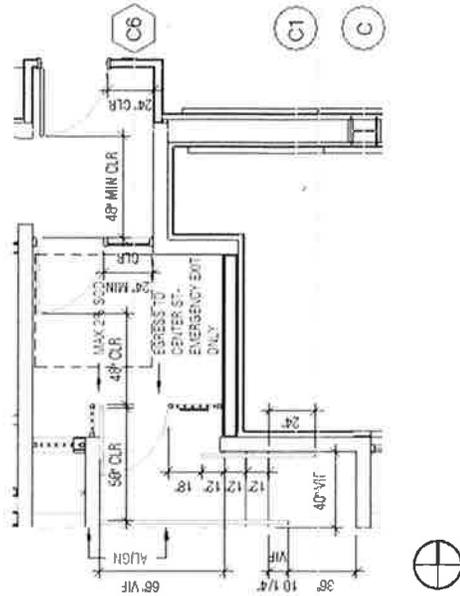
Center Street Exit

The exit on Center Street is approximately 18 inches above the sidewalk to finish floor level. This project proposes to reconfigure the existing stairs, railings, and security gates to meet Chapter 10, exiting. It will not be possible to make this a wheelchair accessible entrance due to property line and public sidewalk constraints, however, the two entries on Milvia will be wheelchair accessible. The public entrance to the building is at the corner of Center and Milvia, which is approximately 70 feet from the exit on Center Street.

The existing building is constructed right to the property line/back of sidewalk and there is no room to configure the new steps out beyond the property line. As shown in the proposed plan on page 3 of this document, this project provides a 40" wide stair between the CMU building wall and the property line. In addition, the top handrail extension will encroach into the security gate clearance.



2118 Milvia Street – existing entry at south elevation (Center Street)
photographs and plan



2118 Milvia Street – proposed 'exit only' at south elevation (Center Street)

Technical Infeasibility

The College seeks DSA approval of its claim of Technical Infeasibility for the **Center Street Exit**.

Please let us know if any additional documentation is required for your review.

Merideth Marschak, AIA
Principal, Noll & Tam Architects

CC: Sharon Millman, Peralta Community College District, Project Manager

- Attachments:**
Meeting Notes dated March 25, 2018
Topographic and Utility Map by CSWST dated 1/29/15

MEETING NOTES

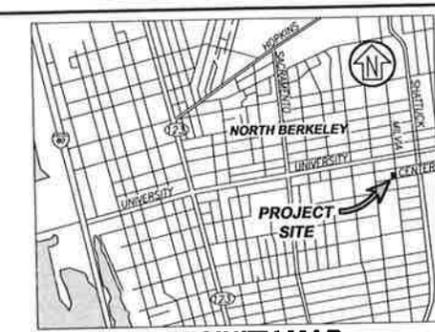
Preliminary Review REH Access Compliance

Project:	Berkeley City College – 2118 Milvia Street 01REH - 10075	Meeting Location:	DSA Oakland
Meeting Date:	March 22, 2018	Meeting #:	
Notes Issued:	March 25, 2018	Prepared by:	MM
In Attendance:	Kris Wen, DSA ACS	Kris.Wen@dgs.ca.gov	
	Sharon Millman, Project Manager, PCCD (SM)	smillman@peralta.edu	
	Merideth Marschak, Architect, N&T (MM)	merideth.marschak@nollandtam.com	

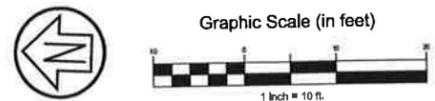
Item	Description	Action
1	General	
1.01	Structural comments received and responses provided. Design team is currently working on the second round of responses to structural review comments.	
1.02	Package submitted 2/27/2018 in response to comments from ACS and FLS.	
1.03	Purpose of meeting: To discuss any initial ACS concerns regarding the REH application as currently submitted.	
2	Entrances	
2.01	Main entrance near corner of Milvia and Center St.: <ul style="list-style-type: none"> Slope conditions are near-level. District will replace entrance and add power operator at this location.	
2.02	Secondary entrance (exit only): <ul style="list-style-type: none"> Entrance is slightly below sidewalk level but slopes have been reduced and are compliant. This door provides an accessible means of egress. Existing trench drain has acceptable grating. Hardware will be exit only with access for authorized personnel.	
2.03	Third exit on Center Street: <ul style="list-style-type: none"> Floor level is approximately 18 inches above sidewalk. Building is constructed to property line. Existing configuration will be revised to create a new vestibule with proper clearance between door and security gate. Some deficiencies will remain. Accessible entrance and exit will be through main entrance which is directly accessible.	N&T will prepare a letter describing the Technical Infeasibility of full compliance at this exit. Letter to be signed by Architect or District. Include information that building is constructed to the property line (back of

Item	Description	Action
		sidewalk) and sidewalk is approximately 18 inches below the floor level necessitating stairs. Address limited handrail extension.
3	Stairs	
3.01	2 enclosed stairs. Stair shafts are CMU. Some clearance deficiencies noted at landings.	
3.02	Guardrails and handrails will be replaced to meet code requirements for height. Fully compliant handrail extensions are technically infeasible at some locations.	N&T will prepare a letter describing the Technical Infeasibility of full compliance for handrails at these locations.
3.03	At Stair S2 jamb clearance is inadequate at the first floor level.	Provide power operators at this location.
3.04	Kris notes that power operators need to be specified so that the doors are free for egress in the even of a power failure: "Fail Safe" rather than "Fail Secure" function.	
3.05	Compliant stair signage including tactile signage will be provided.	
4	Elevator	
4.01	Existing elevator is not gurney sized.	
4.02	MM notes that Berkeley Fire Department (Tony Yuen) is aware of this situation, and will allow as long as the Health Center is located on the first floor.	Location of health Center has been revised to first floor.
4.03	The existing car is slightly smaller than current code requirements. Project proposes removal of existing stand-off panels and direct application of stainless steel panels to the car interior. Plan is to meet current code clearances.	Kris note CBC 11B 407.4.1 gives some flexibility in sizing for existing buildings.
5	Restrooms	
5.01	All restrooms will be new and laid out to current code.	
5.02	Gender neutral restrooms will be fully accessible.	
5.03	Kris notes DSA has clarified signage requirement for gender neutral restrooms: Circle and triangle applied to door with no pictogram; ISA applied to door or adjacent wall.	
5.04	Restrooms will have power operators on doors for convenience.	Clearances are adequate without operators.

Item	Description	Action
6	Assistive Listening System	
6.01	Classrooms will be provided with portable assistive listening systems.	Kris notes permanent systems are not required unless classroom seating is fixed.
7	Next Steps	
7.01	Kris: Prefer to combine all Technical Infeasibility issues in a single letter.	Submit letter at any time. Need not wait until completion of the REH process.
7.02	Please review meeting notes and respond within 5 days with any comments or corrections	Thank you!



VICINITY MAP
NTS



APPROXIMATE LOCATION OF UNDERGROUND ELECTRICAL PER PG&E SERVICE MAPS AND CITY OF BERKELEY DEPARTMENT OF PUBLIC WORKS IMPROVEMENT PLANS. (SEE SURVEY NOTE 5 AND 6)

APPROXIMATE LOCATION OF UNDERGROUND GAS PER PG&E SERVICE MAPS AND CITY OF BERKELEY DEPARTMENT OF PUBLIC WORKS IMPROVEMENT PLANS. (SEE SURVEY NOTE 5 AND 6)

APPROXIMATE LOCATION OF UNDERGROUND SEWER PER CITY OF BERKELEY DEPARTMENT OF PUBLIC WORKS IMPROVEMENT PLANS. (SEE SURVEY NOTE 5)

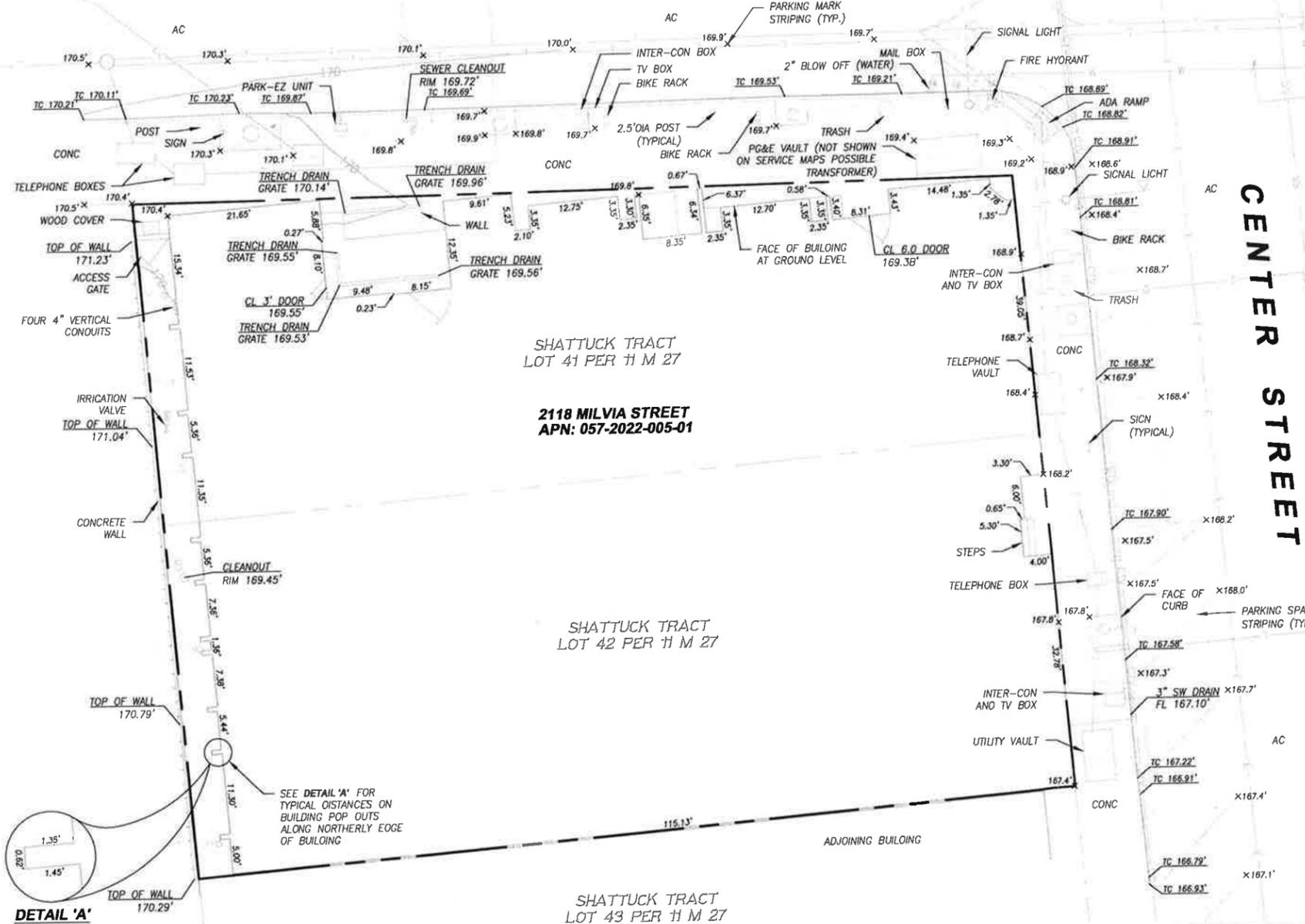
APPROXIMATE LOCATION OF UNDERGROUND STORM DRAIN PER CITY OF BERKELEY DEPARTMENT OF PUBLIC WORKS IMPROVEMENT PLANS. (SEE SURVEY NOTE 5)

APPROXIMATE LOCATION OF UNDERGROUND WATER PER EBMUD SERVICE MAPS AND CITY OF BERKELEY DEPARTMENT OF PUBLIC WORKS IMPROVEMENT PLANS. (SEE SURVEY NOTES 5 AND 9)

APPROXIMATE LOCATION OF UNDERGROUND TELEPHONE PER CITY OF BERKELEY DEPARTMENT OF PUBLIC WORKS IMPROVEMENT PLANS. (SEE SURVEY NOTE 5 AND 10)

MILVIA STREET

CENTER STREET



ABBREVIATIONS

AC	ASPHALTIC CONCRETE	NTS	NOT TO SCALE
BO	BLOW OFF VALVE	SO	STORM DRAIN
CL	CENTER LINE	SS	SANITARY SEWER
CONC	CONCRETE	SSCO	SEWER CLEANOUT
CTV	CABLE TV	TC	TOP OF CURB
CVR	COVER	T	TELEPHONE
E	ELECTRIC	TELE	TELEPHONE TELEVISION
ELEC	ELECTRICAL	TV	TELEVISION
FH	FIRE HYDRANT	TYP	TYPICAL
C	GAS	TC	TOP OF CURB
HV	HIGH VOLTAGE	U	UTILITY
IRR	IRRIGATION	UTIL	UTILITY
L	LIGHTING CONDUIT	TW	TOP OF WALL
M	MAP	VT	VAULT
		W	WATER
		WV	WATER VALVE

SURVEY NOTES

- DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF.
- HORIZONTAL DATUM IS CALIFORNIA COORDINATE SYSTEM B3, ZONE 3, EPOCH 2010.
- VERTICAL DATUM IS NAVD83 BASED ON NGS BENCHMARK HT0973 AND DESIGNATED "BERKELEY 1". BENCHMARK IS A DISK SET IN CONCRETE AT THE NORTHWEST CORNER OF THE INTERSECTION OF GROVE STREET AND ALLSTON WAY, IN THE SOUTHEAST CORNER OF THE CITY HALL LAWN, 36 FEET WEST OF THE WEST CURB OF GROVE STREET, AND 12 FEET NORTH OF THE NORTH CURB OF ALLSTON WAY. ELEVATION 155.00'
- TOPOGRAPHY SHOWN WAS PERFORMED BY FIELD SURVEY IN JANUARY 2015.
- SURFACE AND UNDERGROUND UTILITY INFORMATION SHOWN HEREON IN MILVIA STREET AND CENTER STREET IS COMPILED FROM VARIOUS SERVICE MAPS AND IMPROVEMENT PLANS RECEIVED FROM THE CITY OF BERKELEY DEPARTMENT OF PUBLIC WORKS DATED NOVEMBER 2009.
- UNDERGROUND ELECTRIC AND GAS UTILITIES SHOWN PER PG&E SERVICE MAPS PROVIDED TO US BY PG&E BY MAIL AND RECEIVED ON 01/28/15. SAID SERVICE MAPS ARE DRAWN SCHEMATICALLY AND LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND SHOULD BE VERIFIED BY CONTRACTOR PRIOR TO ANY CONSTRUCTION.
- UNDERGROUND STORM DRAIN AND SANITARY SEWER SHOWN PER GIS MAPS AND IMPROVEMENT PLANS PROVIDED BY CITY OF BERKELEY AND RECEIVED ON 1/29/15. SAID GIS MAPS SHOW APPROXIMATE LOCATIONS OF UTILITIES AND SHOULD BE VERIFIED BY CONTRACTOR PRIOR TO ANY CONSTRUCTION.
- UNDERGROUND COMCAST TV LINES SHOWN PER SERVICE MAPS PROVIDED BY CABLECOM LLC AS A DWF FILE AND RECEIVED ON 1/28/15. SAID SERVICE MAPS ARE DRAWN SCHEMATICALLY AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHOULD VERIFY IN FIELD PRIOR TO ANY CONSTRUCTION.
- UNDERGROUND WATER LINES SHOWN PER SERVICE MAPS PROVIDED BY EAST BAY MUNICIPAL UTILITY DISTRICT AS A PDF AND RECEIVED ON 1/21/15. SAID SERVICE MAPS ARE DRAWN SCHEMATICALLY AND LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHOULD VERIFY IN FIELD PRIOR TO ANY CONSTRUCTION.
- AT&T SERVICE MAPS HAVE YET TO BE RECEIVED. APPROXIMATE UNDERGROUND LOCATION OF TELEPHONE LINES SHOWN PER IMPROVEMENT PLANS PER NOTE 5.
- APPROXIMATE BOUNDARY LINES SHOWN PER CHICAGO TITLE COMPANY TITLE REPORT, TITLE NO: 14-58205815-A-KD, DATED NOVEMBER 21, 2014, 7:30 AM. TITLE REPORT BOUNDARY BASED ON LINE OF OCCUPATION AND EVIDENCE COLLECTED IN THE FIELD. SAID BOUNDARY IS NOT A RESULT OF A BOUNDARY SURVEY BY CSWJST2.
- PARKING FOR 2118 MILVIA STREET IS IN THE STREET FRONTAGE OF CENTER STREET AND MILVIA. NO EVIDENCE RECOVERED FROM THE TITLE REPORT GIVING ACCESS TO THE PARKING LOT NORTH OF THIS PROJECT.
- PROJECT SITE IS WITHIN FEMA ZONE X PER FEMA FIRMETTE PANEL 00576, MAP NUMBER 06001000576, EFFECTIVE DATE AUGUST 3, 2009. ZONE X IS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- DISTANCES SHOWN ON FACE OF BUILDING ARE MEASURED AT GROUND LEVEL.

LEGEND

	BOUNDARY LINE
	BOUNDARY ADJACENT
	BUILDING
	CONTOUR MAJOR (5' INTERVAL)
	CONTOUR MINOR (1' INTERVAL)
	ELECTRICAL LINE (RED PAINT)
	CONCRETE WALL
	GAS LINE
	SANITARY SEWER LINE
	STORM DRAIN LINE
	TELEPHONE LINE
	WATER

DETAIL 'A'
NTS

SEE DETAIL 'A' FOR TYPICAL DISTANCES ON BUILDING POP OUTS ALONG NORTHERLY EDGE OF BUILDING



Rev	Date	Description	Designed	Drawn	Checked
	01/29/15	SUBMITTED PRELIMINARY TOPOGRAPHIC MAP TO CLIENT		JLW	DAC/JJG

CSW ST2
CSW/Stuber-Stroon Engineering Group, Inc.
 Civil & Structural Engineers Surveying & Mapping | Environmental Planning
 LEAD PLANNING | Construction Management
 48 Leveaux Court | tel: 415.883.9850
 Novato, CA 94949 | fax: 415.883.9835
 http://www.cswst2.com | © 2014

City	Berkeley
County	Alameda
State	California

2118 MILVIA STREET
TOPOGRAPHIC AND UTILITY MAP
 PERALTA COMMUNITY COLLEGE DISTRICT

Prepared Under the Direction of:	Sheet
	V1
Scale:	1" = 20'
Date:	1/29/15
Project Number:	3176100
Plan File:	D-5207

- TYPICAL EXPANSION ANCHORS ARE CARBON STEEL HILTI KWIK BOLT TZ OR SIMPSON STRONG-BOLT 2. INSTALLATION SHALL COMPLY WITH ICC REPORTS ESR-1917 REVISED NOVEMBER 2012 OR ICC-ES REPORT ESR-3037 REVISED AUGUST 2012 RESPECTIVELY.
- SPECIAL INSPECTION OF ANCHORS IS REQUIRED AND SHALL COMPLY WITH CBC CHAPTER 17. THE SPECIAL INSPECTOR MUST BE ON THE JOB SITE PERIODICALLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSION, CONCRETE STRENGTH AND TYPE, HOLE DIMENSION AND CLEANLINESS, ANCHOR SPACING AND EDGE DISTANCE, CONCRETE THICKNESS, ANCHOR EMBEDMENT AND TIGHTENING TORQUE.
- ALLOWABLE LOADS SHOWN CORRESPOND TO 100% OF THE VALUES CALCULATED FROM CODE REPORT FOR SINGLE ANCHORS IN CRACKED CONCRETE, HIGH SEISMIC ZONE LOADS, TEMP. RANGE A/1, CONDITIONAL, WITHOUT EDGE DISTANCE OR SPACING EFFECTS.
- WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING ANCHORS INTO EXISTING PRESTRESSED CONCRETE (PRE OR POST TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHORS.
- [FOR DSA/OSHPD] TENSION TEST OR TORQUE TEST ANCHORS TO VALUES TABULATED ABOVE. TEST 10% OF ANCHORS USED FOR SILL PLATE BOLTING, 50% OF ANCHORS USED FOR EQUIPMENT ANCHORAGE, AND 100% OF ALL OTHER ANCHORS U.O.N. ON DRAWINGS. TENSION-TESTED ANCHORS SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS AND SHALL EXHIBIT NO DISCERNIBLE MOVEMENT DURING THE TENSION TEST; E.G. AS EVIDENCED BY LOOSENING OF THE WASHER UNDER THE NUT. TORQUE-TESTED ANCHORS MUST ATTAIN THE SPECIFIED TORQUE WITHIN 1/2 TURN OF THE NUT.
- HOLE DRILLING AND CLEANING PROCEDURES SHALL BE FOLLOWED AS DETERMINED BY THE MANUFACTURER'S INSTRUCTIONS.

EPOXY ANCHORS

- EPOXY ANCHOR PULL TEST VALUES:

PULL TEST VALUES FOR EPOXY ANCHORS IN CONCRETE				
THREADED ROD DIAMETER (in.)	REBAR SIZE	MIN. EMBED. (in.)	TENSION TEST VALUE (LBS)	
			CONCRETE STRENGTH (PSI)	
3/8	#3	4	2500	4000
1/2	#4	4 1/2	3000	3000
5/8	#5	6	4850	4850
3/4	#6	7	6500	6500
7/8	#7	8	7500	7500
1	#8	9	8030	8030

- EPOXY SHALL BE HILTI RE-500-SO OR SIMPSON STRONG-TIE'S SET-XP. INSTALLATION SHALL COMPLY WITH LATEST ICC REPORTS ESR-2322 REVISED NOV 2012 OR ESR-250B REVISED OCTOBER 2012, RESPECTIVELY.
- CARBON STEEL THREADED RODS SHALL CONFORM TO ASTM A193 GRADE B7, REINFORCING BARS SHALL COMPLY WITH ASTM A615 GRADE 60.
- SPECIAL INSPECTION OF ANCHORS IS REQUIRED AND SHALL COMPLY WITH CBC CHAPTER 17. THE SPECIAL INSPECTOR MUST BE ON THE JOB SITE PERIODICALLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSION, CONCRETE STRENGTH AND TYPE, HOLE DIMENSION AND CLEANLINESS, ANCHOR SPACING AND EDGE DISTANCE, CONCRETE THICKNESS, ANCHOR EMBEDMENT AND TIGHTENING TORQUE. THE SPECIAL INSPECTOR MUST VERIFY THE INITIAL INSTALLATIONS OF EACH TYPE AND SIZE BY CONSTRUCTION PERSONNEL ON SITE. SUBSEQUENT INSTALLATIONS OF SIMILAR ANCHORS BY THE SAME CONSTRUCTION PERSONNEL MAY BE PERFORMED IN THE ABSENCE OF THE SPECIAL INSPECTOR.
- ALLOWABLE LOADS CORRESPOND TO 100% OF VALUES CALCULATED FROM CODE REPORT FOR SINGLE ANCHORS IN CRACKED CONCRETE, TEMPERATURE RANGE A/1, HIGH SEISMIC ZONE C, D, E, OR F, CONDITION A, WITHOUT EDGE DISTANCE, CONCRETE THICKNESS OR SPACING EFFECTS, U.O.N.
- WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING ANCHORS INTO EXISTING PRESTRESSED CONCRETE (PRE OR POST TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHORS.
- [FOR DSA/OSHPD] TENSION TEST ANCHORS TO VALUES TABULATED ABOVE. TEST 10% OF ANCHORS FOR SILL PLATE BOLTING, 50% OF ANCHORS USED FOR EQUIPMENT ANCHORAGE, AND 100% OF ALL OTHER ANCHORS UNLESS NOTED ON DRAWINGS. TENSION-TESTED ANCHORS SHALL MAINTAIN THE TEST LOAD FOR 15 SECONDS AND SHALL EXHIBIT NO DISCERNIBLE MOVEMENT DURING THE TENSION TEST; E.G. AS EVIDENCED BY LOOSENING OF THE WASHER UNDER THE NUT.
- HOLE DRILLING AND CLEANING PROCEDURES SHALL BE FOLLOWED AS DETERMINED BY THE MANUFACTURER'S INSTRUCTIONS.

- MINIMUM CONCRETE COVER FOR REINFORCING STEEL:
 - SURFACES PLACED AGAINST EARTH 3"
 - FORMED SURFACES BELOW GRADE 2"
 - SURFACES EXPOSED TO WEATHER 2"
 - BEAM AND COLUMN BARS (INCLUDING STIRRUPS OR TIES) 1-1/2"
 - EXTERIOR WALL AT EXTERIOR FACE 1-1/2"
 - SLABS AND WALLS NOT EXPOSED TO WEATHER 1"

STEEL

- NOT USED
- PLATES: ASTM A572, GR50
- NOT USED
- NOT USED
- NOT USED
- NOT USED
- HIGH STRENGTH BOLTS: ASTM A325N.
- MACHINE BOLTS: ASTM A307.
- ANCHOR BOLTS / ROOFS: ASTM F1554, GR. 36.
- WELDING ELECTRODES: E-70XX.
- NOT USED
- WELDED HEADED STUDS: ASTM A108, TYPE H4L BY NELSON OR EQUAL.
- ALL STEEL SHAPES AND PLATES AND STEEL DECKING EXPOSED TO WEATHER OR UNHEATED SPACES SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH G90 GALVANIZATION. TOUCH UP WELDED AREAS WITH GALV WELD REPAIR. PAINT EXPOSED SURFACES WITH EPOXY PAINT SYSTEMS AS REQUIRED BY ARCHITECTURAL DRAWINGS.

CONCRETE MASONRY

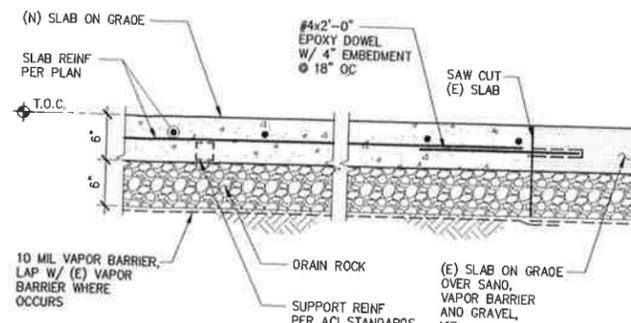
- MASONRY MATERIALS SHALL CONFORM TO THE FOLLOWING U.O.N.
 - CONCRETE MASONRY UNITS: ASTM C90, TYPE 1 GRADE N, LIGHTWEIGHT, HOLLOW LOAD BEARING UNITS (MINIMUM COMPRESSIVE STRENGTH = 1900 PSI)
 - GROUT: ASTM C476 (MINIMUM COMPRESSIVE STRENGTH = 2000 PSI)
 - MORTAR: ASTM C270, TYPE S (MINIMUM COMPRESSIVE STRENGTH = 1800 PSI)
- ALL CELLS SHALL BE FULLY GROUTED.
- MASONRY INSERTS SHALL BE MANUFACTURED BY BURKE OR APPROVED EQUAL.
- REINFORCING STEEL: ASTM A615, GRADE 60. ALL MASONRY TO BE REINFORCED UNLESS SPECIFICALLY MARKED "NOT REINFORCED".
- LAP ALL REINFORCEMENT 50 BAR DIAMETERS.
- ALL WALLS SHALL BE LAID IN RUNNING BOND TRUE AND PLUMB.
- WHERE BLOCK IS LAID TO A MAXIMUM OF FOUR FEET BEFORE GROUTING, NO CLEANOUT SHALL BE REQUIRED. WHERE BLOCK IS LAID TO A HEIGHT GREATER THAN FOUR FEET BEFORE GROUTING, CLEANOUTS SHALL BE PROVIDED.
- WHERE GROUTING IS STOPPED FOR A PERIOD OF ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE GROUT POUR 1-1/2" BELOW THE TOP OF THE UPPER MOST UNIT.
- PROVIDE VERTICAL CONTROL JOINTS IN WALLS AT LOCATIONS SHOWN ON DRAWINGS.

EXPANSION ANCHORS

- EXPANSION ANCHOR PULL TEST VALUES:

HILTI KWIK-BOLT TZ EXPANSION ANCHORS IN NORMAL-WEIGHT CONCRETE-CRACKED					
ANCHOR DIAMETER (in.)	MINIMUM EMBEDMENT DEPTH (in.) "h _{nom} "	MINIMUM EMBEDMENT CONC. THICKNESS (in.)	TENSION TEST VALUE (lbs)		TORQUE TEST VALUE (ft-lbs)
			CONCRETE STRENGTH (psi)		
3/8	2 3/8	4	1510	1740	25
1/2	3 3/8	6	3265	3785	60
5/8	4 3/8	6	5215	6030	60
3/4	5 3/8	B	6765	7825	110

SIMPSON STRONG BOLT 2 EXPANSION ANCHORS IN NORMAL-WEIGHT CONCRETE-CRACKED					
ANCHOR DIAMETER (in.)	MINIMUM EMBEDMENT DEPTH (in.) "h _{nom} "	MINIMUM EMBEDMENT CONC. THICKNESS (in.)	TENSION TEST VALUE (lbs)		TORQUE TEST VALUE (ft-lbs)
			CONCRETE STRENGTH (psi)		
3/8	2 3/8	3 1/2	990	1145	30
1/2	3 3/8	5 1/2	2295	2655	60
5/8	4 3/8	6 1/2	3735	4300	90
3/4	5 3/8	8 1/2	5335	6145	150



NEW SLAB ON GRADE AT EXISTING SLAB

Scale: 1"=1'-0"

CONCRETE

- CONCRETE CLASSES:

CLASS	USE	28-DAY STRENGTH (PSI)	AGGREGATE SIZE (INCH)	WEIGHT (PCF)	W/C RATIO	% FLYASH	% SLAG
A	FOUNDATIONS, GRADE BEAMS	4000	1	145	0.5	15-25	30
B	SLABS ON GRADE	4000	1	145	0.45	15-25	30

- CONCRETE MIXING SHALL COMPLY WITH ASTM C94.
- ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED.
- REINFORCING STEEL:
 - BARS: ASTM A615, GRADE 60.
 - ALL CONCRETE SHALL BE REINFORCED UNLESS SPECIFICALLY MARKED "NOT REINFORCED"
- TERMINATION OF REINFORCEMENT
 - TERMINATE ALL BARS IN LAPS, 90 DEGREE BENDS, OR WITH DOWELS INTO EXISTING CONCRETE.
 - BEND TOP FOOTING BARS DOWN TO BOTTOM MAT AT ENDS.
 - BEND BOTTOM FOOTING BARS UP WITH STANDARD 90 DEGREE BENDS.
 - PROVIDE DOWELS INTO FOOTINGS AT WALLS OF SAME SIZE AND SPACING AS WALL VERTICAL REINFORCEMENT.
 - ALL REINFORCEMENT MAY LAP WITH COUPLERS WHICH ARE 125% OF BAR STRENGTH OR GREATER. SUBMIT ICBO REPORT.
- GROUT: SAME AS MASTER BUILDER'S "MASTERFLOW 928 GROUT," OR EQUAL
**MINIMUM COMPRESSIVE STRENGTH = 4000 PSI
GROUT TO BE NON-SHRINK**

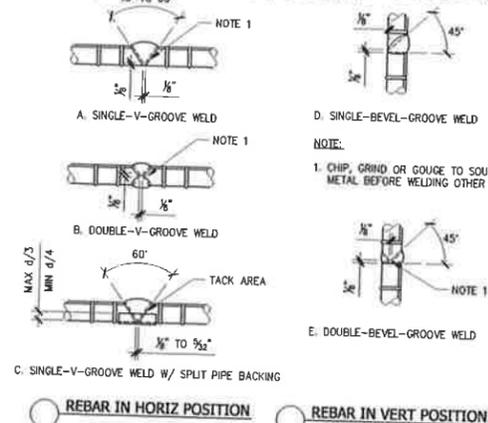
GENERAL

- SEE DRAWINGS OTHER THAN STRUCTURAL FOR: TYPES OF FLOOR FINISH AND THEIR LOCATION, FOR DEPRESSIONS IN FLOOR SLABS, FOR OPENINGS IN WALLS AND FLOORS REQUIRED BY ARCHITECTURAL AND MECHANICAL FEATURES, FOR STAIRS, CURBS, ETC.
- NO PIPES OR DUCTS SHALL BE PLACED IN SLABS OR WALLS UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE ARCHITECT.
- DRAWINGS AND SPECIFICATIONS REPRESENT FINISHED STRUCTURE. CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO SHORING AND TEMPORARY BRACING. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO INSURE SAFETY OF ALL PERSONS AND STRUCTURES AT THE SITE AND ADJACENT TO THE SITE. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT, ENGINEER OR CONSTRUCTION MANAGER SHALL NOT RELIEVE THE CONTRACTOR OF SUCH RESPONSIBILITY.
- OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES, AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND RESOLVED BEFORE PROCEEDING WITH THE WORK.
- DO NOT USE SCALED DIMENSIONS; USE WRITTEN DIMENSIONS. WHERE NO DIMENSION IS PROVIDED, CONSULT THE ARCHITECT FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
- IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR CALLED FOR ON THE DRAWINGS OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE CALLED FOR OR SHOWN. ALL DETAILS REFERENCED ONCE SHALL APPLY TO ALL SIMILAR CONDITIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY LICENSES AND PERMITS. THE CONTRACTOR SHALL CONFORM TO ALL STATE AND LOCAL LAWS GOVERNING THE WORK.
- ALL CONSTRUCTION TO BE PERFORMED IN A MANNER TO MINIMIZE IMPACT ON THE CONTINUING OPERATION OF THE BUILDING & SITE. CONTRACTOR TO PROVIDE APPROPRIATE BARRIERS AROUND CONSTRUCTION. COORDINATE ALL OPERATIONS WITH THE OWNER.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES BEFORE BEGINNING WORK. SPECIAL CARE SHALL BE TAKEN TO PROTECT UTILITIES THAT ARE TO REMAIN IN SERVICE DURING CONSTRUCTION.
- ALL FINISHES, STRUCTURAL ELEMENTS AND ARCHITECTURAL FEATURES AFFECTED BY CONSTRUCTION TO BE REPAIRED AND/OR REPLACED TO MATCH EXISTING CONSTRUCTION.
- THE SCOPE OF WORK INCLUDES CLEANUP NECESSARY TO LEAVE THE BUILDING IN A NEAT AND USABLE CONDITION. ALL REMOVED ITEMS, MATERIALS AND DEBRIS, UNLESS OTHERWISE NOTED, SHALL BECOME THE PROPERTY OF THE DEMOLITION CONTRACTOR AND SHALL BE REMOVED PROMPTLY FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.

EXISTING CONSTRUCTION

- WORK SHOWN IS NEW UNLESS NOTED AS EXISTING: (E).
- THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE PROCEEDING WITH THE WORK.
- THE REMOVAL, CUTTING, DRILLING, ETC. OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE AND SMALL TOOLS IN ORDER NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BUILDING. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL FEATURES NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED AND PRIOR APPROVAL SHALL BE OBTAINED BEFORE REMOVAL OF MEMBERS.
- THE CONTRACTOR SHALL SAFELY SHORE EXISTING CONSTRUCTION WHEREVER EXISTING SUPPORTS ARE REMOVED TO ALLOW THE INSTALLATION OF THE NEW WORK. ALL SHORING METHODS AND SEQUENCING OF DEMOLITION SHALL BE SPECIFIED BY A LICENSED STRUCTURAL ENGINEER TO BE RETAINED BY THE CONTRACTOR. SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.
- EXISTING STRUCTURE INFORMATION NOTED ON THESE DRAWINGS IS PER STRUCTURAL DRAWINGS BY L.L. FREELS AND ASSOCIATES DATED 8-18-68 AND STRUCTURAL DRAWINGS BY PAUL F. FRATESSA ASSOCIATES, INC. DATED 9-20-95.

NOTES: 1. TEST WELDABILITY OF (E) REBAR PRIOR TO WELDING
2. WELD STRENGTH TO BE 70% MIN USE WELD STRENGTH THAT MEETS OR EXCEEDS (E) REBAR STRENGTH.



REBAR IN HORIZ POSITION REBAR IN VERT POSITION

NOTE: ALL WELDS SHALL BE MADE WITH LOW HYDROGEN RODS. PREHEAT AS REQUIRED. SEE SPECIFICATIONS FOR WELDING AND REBAR REQUIREMENTS. DETAILS A, B, & E FOR BARS #9 AND LARGER. DETAIL C FOR SMALLER THAN #9.

TYPICAL REINFORCING BAR WELDS BAR TO BAR DIRECT BUTT SPLICES Scale: 3"=1'-0"

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Rehabilitation

APPROVALS



ISSUE TITLE
REH REPORT REVISION 3
MATERIAL TESTING AND REPAIR

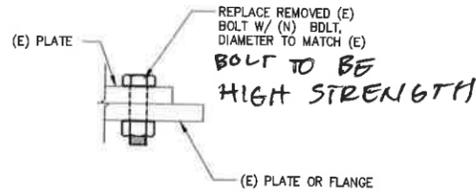
ISSUE DATE 08/07/18
NOLL & TAM JOB NUMBER 21803.00

REVISIONS
NO. DATE DESCRIPTION

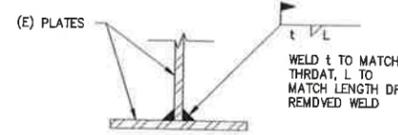
SHEET TITLE
GENERAL NOTES
AND DETAILS

SHEET NUMBER

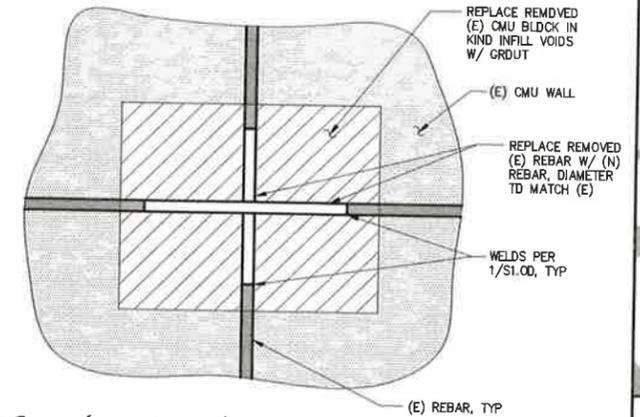
R-S1.00



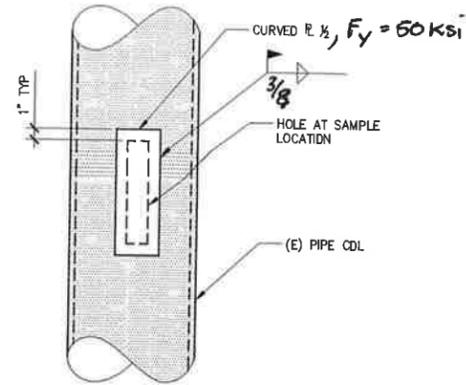
7 (E) CONNECTION BOLT REPAIR Scale: NTS



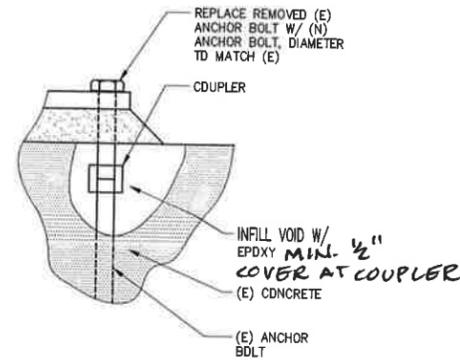
4 (E) WELD REPAIR Scale: NTS



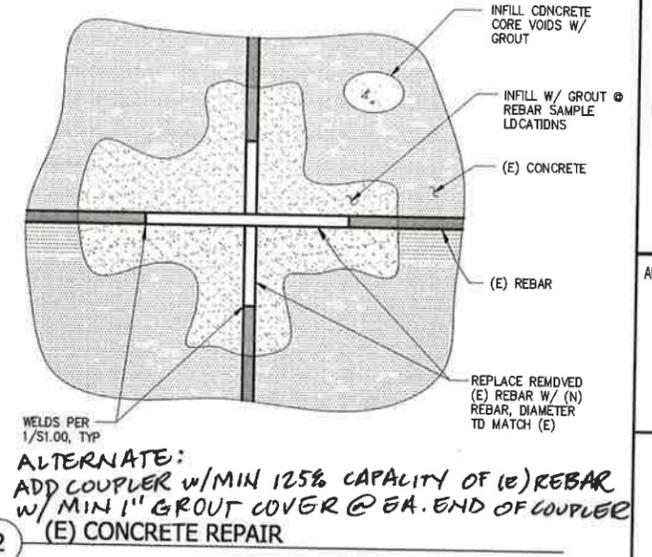
1 (E) CMU WALL REPAIR Scale: NTS
SEE 2/- FOR ADD'L REBAR NOTES



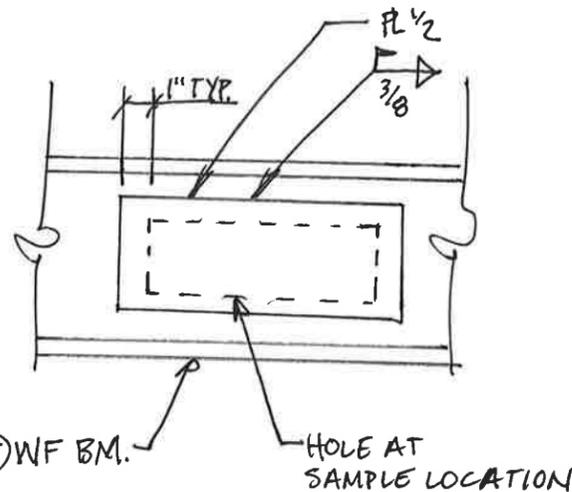
8 (E) PIPE COLUMN REPAIR Scale: NTS



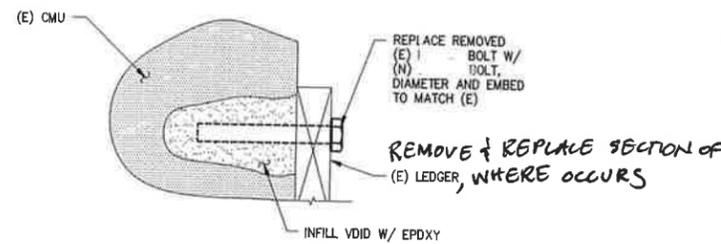
5 (E) ANCHOR BOLT REPAIR Scale: NTS



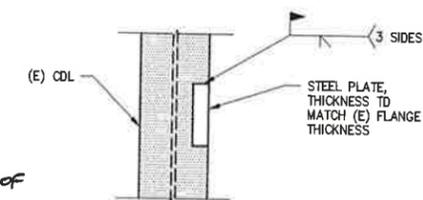
2 (E) CONCRETE REPAIR Scale: NTS



9 (E) WF BEAM REPAIR SCALE: NTS



6 (E) BOLT REPAIR Scale: NTS



3 (E) STEEL COLUMN REPAIR Scale: NTS

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ISSUE TITLE
REH REPORT REVISION 3
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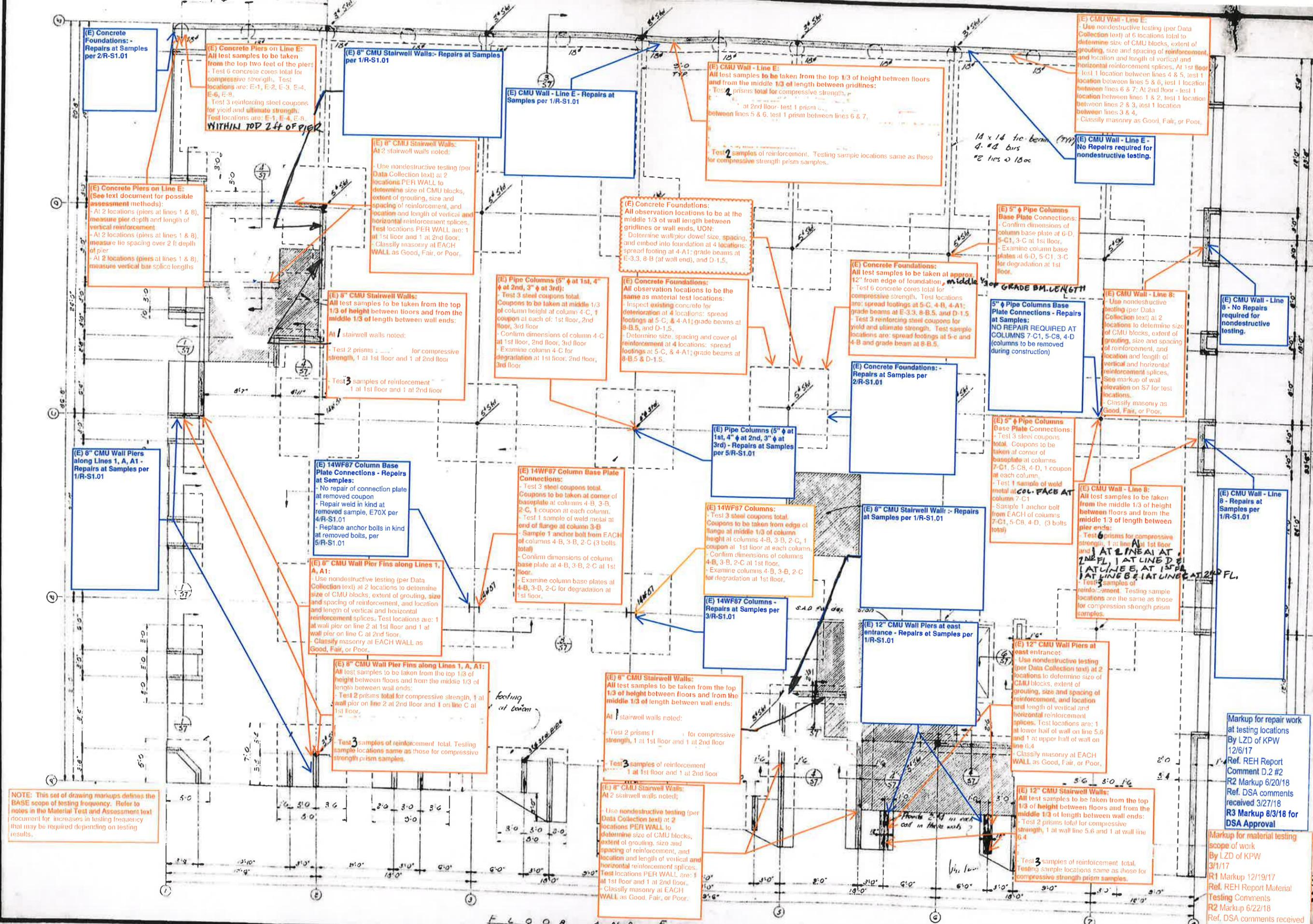
REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
DETAILS

SHEET NUMBER

R-S1.01

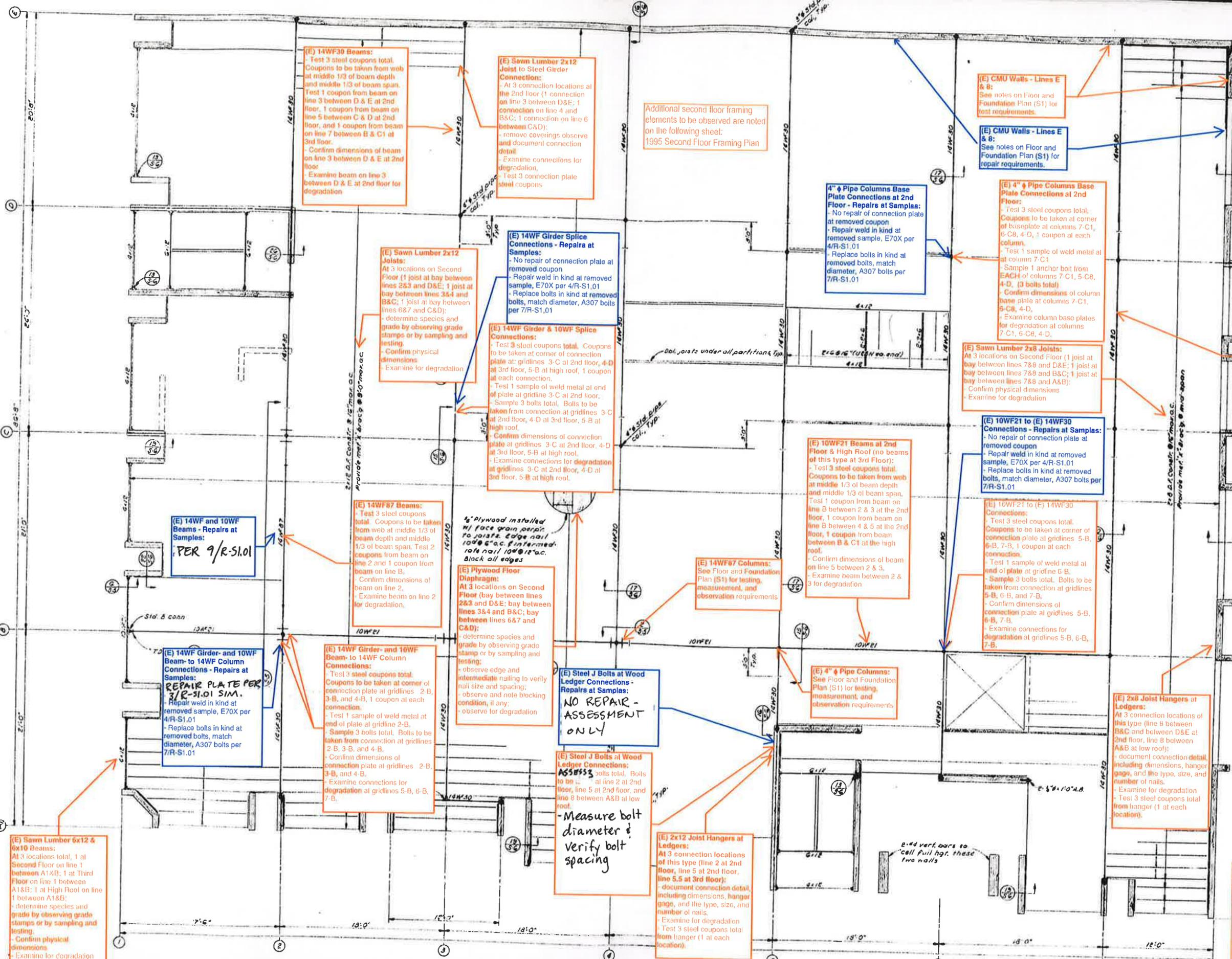


NOTE: This set of drawing markups defines the BASE scope of testing frequency. Refer to notes in the Material Test and Assessment text document for increases in testing frequency that may be required depending on testing results.

Markup for repair work at testing locations
By LZD of KPW
12/6/17
Ref. REH Report Comment D.2 #2
R2 Markup 6/20/18
Ref. DSA comments received 3/27/18
R3 Markup 8/3/18 for DSA Approval

Markup for material testing scope of work
By LZD of KPW
3/1/17
R1 Markup 12/19/17
Ref. REH Report Material Testing Comments
R2 Markup 6/22/18
Ref. DSA comments received 3/27/18
R3 Markup 8/7/18 for DSA approval

JAMES Y. SMITH inc
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 2718 TELEGRAM AVE. BERKELEY A.L.A.
 947-0039
 L.L. FREELS and associates
 REH REPORT REVISION 3 MATERIAL TESTING AND REPAIR
 12/10/17



Additional second floor framing elements to be observed are noted on the following sheet:
1995 Second Floor Framing Plan

(E) 14WF30 Beams:
- Test 3 steel coupons total. Coupons to be taken from web at middle 1/3 of beam depth and middle 1/3 of beam span. Test 1 coupon from beam on line 3 between D & E at 2nd floor, 1 coupon from beam on line 5 between C & D at 2nd floor, and 1 coupon from beam on line 7 between B & C1 at 3rd floor.
- Confirm dimensions of beam on line 3 between D & E at 2nd floor.
- Examine beam on line 3 between D & E at 2nd floor for degradation.

(E) Sawn Lumber 2x12 Joist to Steel Girder Connections:
- At 3 connection locations at the 2nd floor (1 connection on line 3 between D&E, 1 connection on line 4 and B&C; 1 connection on line 6 between C&D).
- remove coverings observe and document connection detail.
- Examine connections for degradation.
- Test 3 connection plate steel coupons.

(E) CMU Walls - Lines E & B:
- See notes on Floor and Foundation Plan (S1) for test requirements.

(E) CMU Walls - Lines E & B:
- See notes on Floor and Foundation Plan (S1) for repair requirements.

(E) 4" Pipe Columns Base Plate Connections at 2nd Floor - Repairs at Samples:
- No repair of connection plate at removed coupon.
- Repair weld in kind at removed sample, E70X per 4/R-S1.01.
- Replace bolts in kind at removed bolts, match diameter, A307 bolts per 7/R-S1.01.

(E) 4" Pipe Columns Base Plate Connections at 2nd Floor:
- Test 3 steel coupons total. Coupons to be taken at corner of baseplate at columns 7-C1, 6-CB, 4-D, 1 coupon at each column.
- Test 1 sample of weld metal at column 7-C1.
- Sample 1 anchor bolt from EACH of columns 7-C1, 5-CB, 4-D, (3 bolts total).
- Confirm dimensions of column base plate at columns 7-C1, 5-CB, 4-D.
- Examine column base plates for degradation at columns 7-C1, 6-CB, 4-D.

(E) Sawn Lumber 2x12 Joist to Steel Girder Connection:
- At 3 connection locations at the 2nd floor (1 connection on line 7 between D&E; 1 connection on line 7 and B&C; 1 connection on line 7 between A&B).
- remove coverings observe and document connection detail.
- Examine connections for degradation.

(E) Sawn Lumber 2x12 Joists:
At 3 locations on Second Floor (1 joist at bay between lines 2&3 and D&E; 1 joist at bay between lines 3&4 and B&C; 1 joist at bay between lines 6&7 and C&D):
- determine species and grade by observing grade stamps or by sampling and testing.
- Confirm physical dimensions.
- Examine for degradation.

(E) 14WF Girder Splice Connections - Repairs at Samples:
- No repair of connection plate at removed coupon.
- Repair weld in kind at removed sample, E70X per 4/R-S1.01.
- Replace bolts in kind at removed bolts, match diameter, A307 bolts per 7/R-S1.01.

(E) 14WF Girder & 10WF Splice Connections:
- Test 3 steel coupons total. Coupons to be taken at corner of connection plate at gridlines 3-C at 2nd floor, 4-D at 3rd floor, 5-B at high roof, 1 coupon at each connection.
- Test 1 sample of weld metal at end of plate at gridline 3-C at 2nd floor.
- Sample 3 bolts total. Bolts to be taken from connection at gridlines 3-C at 2nd floor, 4-D at 3rd floor, 5-B at high roof.
- Confirm dimensions of connection plate at gridlines 3-C at 2nd floor, 4-D at 3rd floor, 5-B at high roof.
- Examine connections for degradation at gridlines 3-C at 2nd floor, 4-D at 3rd floor, 5-B at high roof.

(E) 10WF21 to (E) 14WF30 Connections - Repairs at Samples:
- No repair of connection plate at removed coupon.
- Repair weld in kind at removed sample, E70X per 4/R-S1.01.
- Replace bolts in kind at removed bolts, match diameter, A307 bolts per 7/R-S1.01.

(E) 10WF21 to (E) 14WF30 Connections:
- Test 3 steel coupons total. Coupons to be taken at corner of connection plate at gridlines 5-B, 6-B, 7-B, 1 coupon at each connection.
- Test 1 sample of weld metal at end of plate at gridline 6-B.
- Sample 3 bolts total. Bolts to be taken from connection at gridlines 5-B, 6-B, and 7-B.
- Confirm dimensions of connection plate at gridlines 5-B, 6-B, 7-B.
- Examine connections for degradation at gridlines 5-B, 6-B, 7-B.

(E) 14WF and 10WF Beams - Repairs at Samples:
PER 9/R-S1.01

(E) 14WF87 Beams:
- Test 3 steel coupons total. Coupons to be taken from web at middle 1/3 of beam depth and middle 1/3 of beam span. Test 2 coupons from beam on line 2 and 1 coupon from beam on line B.
- Confirm dimensions of beam on line 2.
- Examine beam on line 2 for degradation.

(E) Plywood Floor Diaphragm:
At 3 locations on Second Floor (bay between lines 2&3 and D&E; bay between lines 3&4 and B&C; bay between lines 6&7 and C&D):
- determine species and grade by observing grade stamp or by sampling and testing.
- observe edge and intermediate nailing to verify nail size and spacing;
- observe and note blocking condition, if any;
- observe for degradation.

(E) 14WF87 Columns:
See Floor and Foundation Plan (S1) for testing, measurement, and observation requirements.

(E) 4" Pipe Columns:
See Floor and Foundation Plan (S1) for testing, measurement, and observation requirements.

(E) 14WF Girder and 10WF Beam to 14WF Column Connections - Repairs at Samples:
REPAIR PLATE PER 3/R-S1.01 SIM.
- Repair weld in kind at removed sample, E70X per 4/R-S1.01.
- Replace bolts in kind at removed bolts, match diameter, A307 bolts per 7/R-S1.01.

(E) 14WF Girder and 10WF Beam to 14WF Column Connections:
- Test 3 steel coupons total. Coupons to be taken at corner of connection plate at gridlines 2-B, 3-B, and 4-B, 1 coupon at each connection.
- Test 1 sample of weld metal at end of plate at gridline 2-B.
- Sample 3 bolts total. Bolts to be taken from connection at gridlines 2-B, 3-B, and 4-B.
- Confirm dimensions of connection plate at gridlines 2-B, 3-B, and 4-B.
- Examine connections for degradation at gridlines 5-B, 6-B, 7-B.

(E) Steel J Bolts at Wood Ledger Connections - Repairs at Samples:
NO REPAIR - ASSESSMENT ONLY

(E) Steel J Bolts at Wood Ledger Connections:
ASS 3/17/18
- Measure bolt diameter & verify bolt spacing

(E) 2x12 Joist Hangers at Ledgers:
At 3 connection locations of this type (line B between B&C and between D&E at 2nd floor, line B between A&B at low roof).
- document connection detail, including dimensions, hanger gage, and the type, size, and number of nails.
- Examine for degradation.
- Test 3 steel coupons total from hanger (1 at each location).

(E) Sawn Lumber 6x12 & 6x10 Beams:
At 3 locations total, 1 at Second Floor on line 1 between A1&B; 1 at Third Floor on line 1 between A1&B; 1 at High Roof on line 1 between A1&B.
- determine species and grade by observing grade stamps or by sampling and testing.
- Confirm physical dimensions.
- Examine for degradation.

Markup for repair work at testing locations
By LZD of KPW
12/6/17
Ref. REH Report Comment D.2 #2
R2 Markup 6/20/18
Ref. DSA comments received 3/27/18
R3 Markup 8/3/18 for DSA Approval

Markup for material testing scope of work
By LZD of KPW
3/1/17
R1 Markup 12/19/17
Ref. REH Report Material Testing Comments
R2 Markup 6/22/18
Ref. DSA comments received 3/27/18
R3 Markup 8/7/18 for DSA Approval

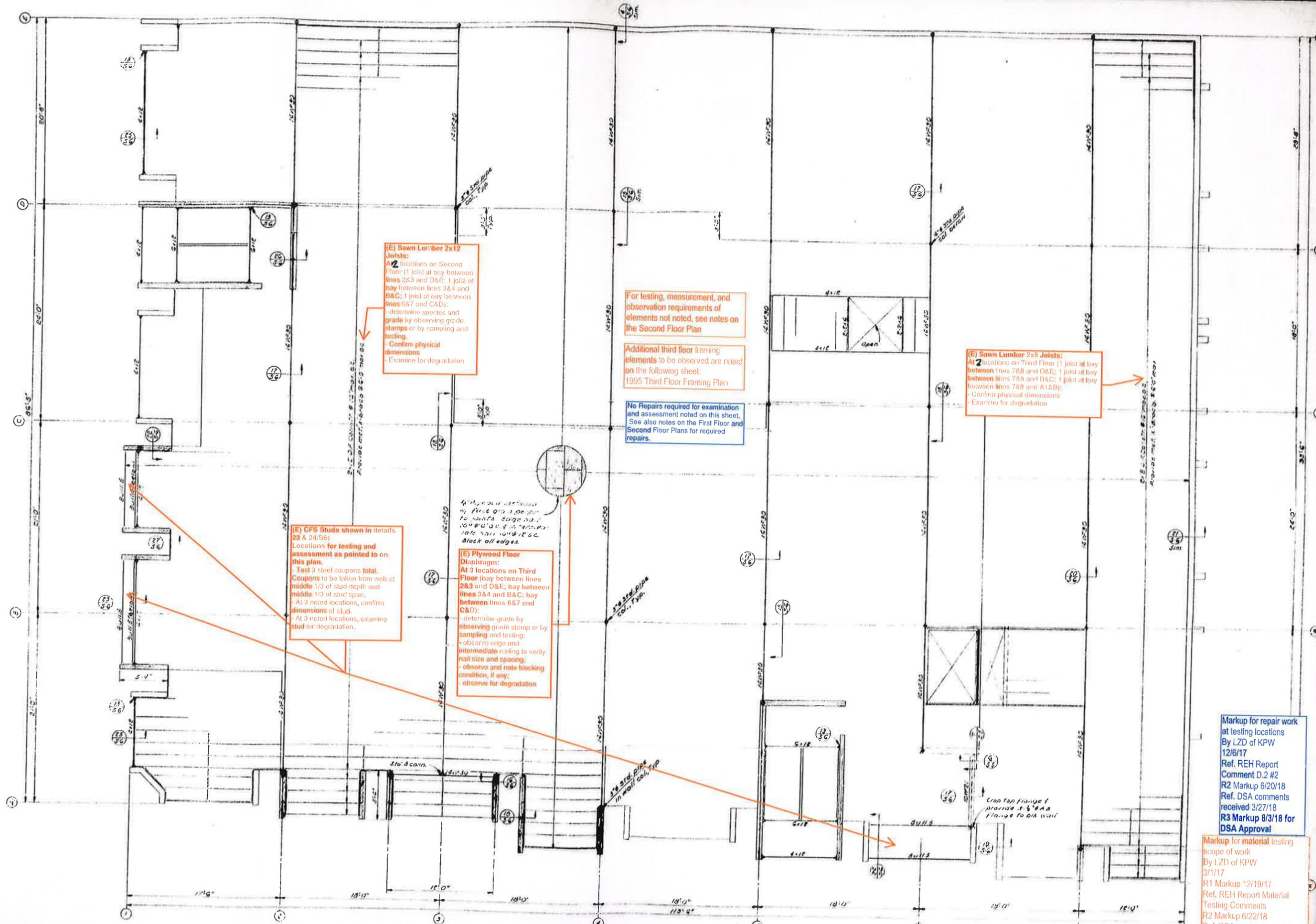
SECOND FLOOR FRAMING PLAN

OFFICE BUILDING
JAMES Y. SMITH inc
BERKELEY
CENTER & MILVIA

L. L. FREELS and associates
2716 TELEGRAPH AVE. BERKELEY A.I.A.
947-0670

REH REPORT
REVISION 3
MATERIAL TESTING AND REPAIR





(E) Sawn Lumber 2x12 Joists:
 At 2 locations on Second Floor (1 joist at bay between lines 2&3 and D&E; 1 joist at bay between lines 3&4 and B&C; 1 joist at bay between lines 6&7 and C&D):
 - determine species and grade by observing grade stamps or by sampling and testing.
 - Confirm physical dimensions.
 - Examine for degradation.

For testing, measurement, and observation requirements of elements not noted, see notes on the Second Floor Plan.

Additional third floor framing elements to be observed are noted on the following sheet:
 1995 Third Floor Framing Plan

No Repairs required for examination and assessment noted on this sheet. See also notes on the First Floor and Second Floor Plans for required repairs.

(E) Sawn Lumber 2x8 Joists:
 At 2 locations on Third Floor (1 joist at bay between lines 7&8 and D&E; 1 joist at bay between lines 7&8 and A1&B):
 - Confirm physical dimensions.
 - Examine for degradation.

(E) CFS Studs shown in details 23 & 24.S61
 Locations for testing and assessment as pointed to on this plan.
 - Test 3 steel coupons total. Coupons to be taken from web at middle 1/3 of stud depth and middle 1/3 of stud span.
 - At 3 noted locations, confirm dimensions of stud.
 - At 3 noted locations, examine stud for degradation.

(E) Plywood Floor Diaphragm:
 At 3 locations on Third Floor (bay between lines 2&3 and D&E; bay between lines 3&4 and B&C; bay between lines 6&7 and C&D):
 - determine grade by observing grade stamp or by sampling and testing.
 - observe edge and intermediate nailing to verify nail size and spacing.
 - observe and note blocking condition, if any.
 - observe for degradation.

Markup for repair work at testing locations
 By LZD of KPW
 12/6/17
 Ref. REH Report Comment D.2 #2
 R2 Markup 6/20/18
 Ref. DSA comments received 3/27/18
 R3 Markup 8/3/18 for DSA Approval

Markup for material testing scope of work
 By LZD of KPW
 3/1/17
 R1 Markup 12/19/17
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 R3 Markup 8/7/18 for DSA approval.

THIRD FLOOR AND LOW ROOF FRAMING PLAN

OFFICE BUILDING
JAMES V. SMITH INC.
 CENTER & BELVA
 740 08
 L.L. FREEL'S and associates
 278 TELEGRAPH AVE. BERKELEY CA, U.S.A.
 947-8570
 REH REPORT REVISION 3 MATERIAL TESTING AND REPAIR



PAUL F. FRATESSA ASSOCIATES, INC.
CONSULTING STRUCTURAL ENGINEERS
350 22nd St., Suite 800, Oakland, CA 94612
Tel: 510/452-2283 FAX: 510/452-0830

Drawn By: MPG



Date: 9-20-95

Revisions:



Project Title:
SEISMIC UPGRADE OF THE EXISTING BUILDING LOCATED AT 2118 MILVIA ST., BERKELEY, CA

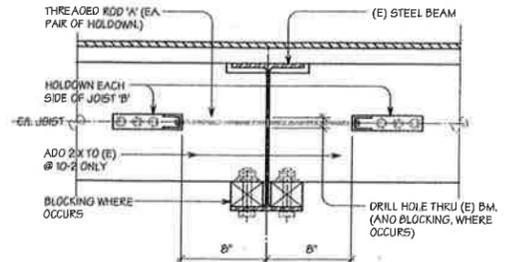
Project No: 1809-025

Sheet Title:
SECOND FLOOR FRAMING PLAN

Scale: AS NOTED

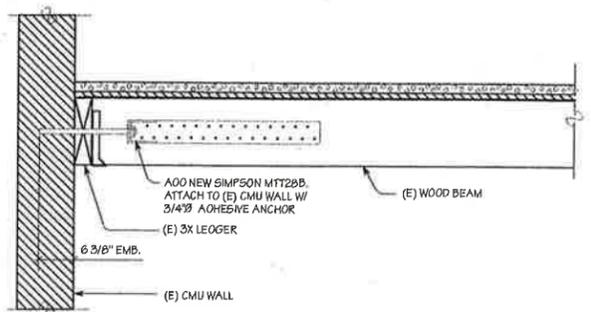
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S3

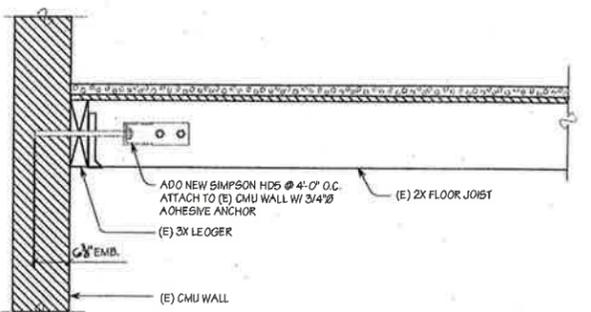


'A'	'B'	CAPACITY OF OBL. HOLDOWN	BOLTS TO 2X @ EA. HOLDOWN	MARK ON PLANS	NOTES
5/8" Ø	HD2A	3.1K	2-5/8" Ø	2	-
3/4" Ø	HD6A	3.7K	2-3/4" Ø	5	-
7/8" Ø	HD6A	4.6K	2-7/8" Ø	6	-
7/8" Ø	HD6A	6.4K	3-7/8" Ø	8	-
7/8" Ø	HD10A	7.9K	4-7/8" Ø	10	-
7/8" Ø	HD10A	16.6K	4-7/8" Ø	10-2	ADD 2X TO (E) 2X

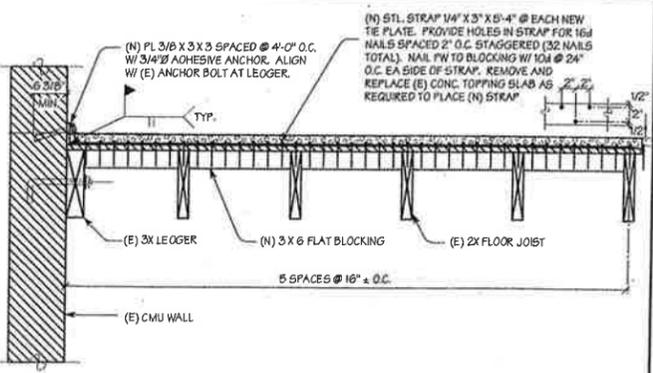
4 JOIST TO JOIST DRAG RETROFIT
1/2" = 1'-0"



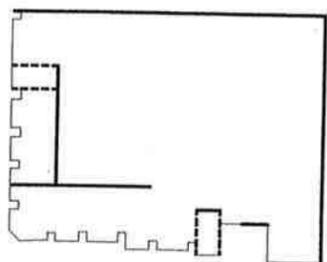
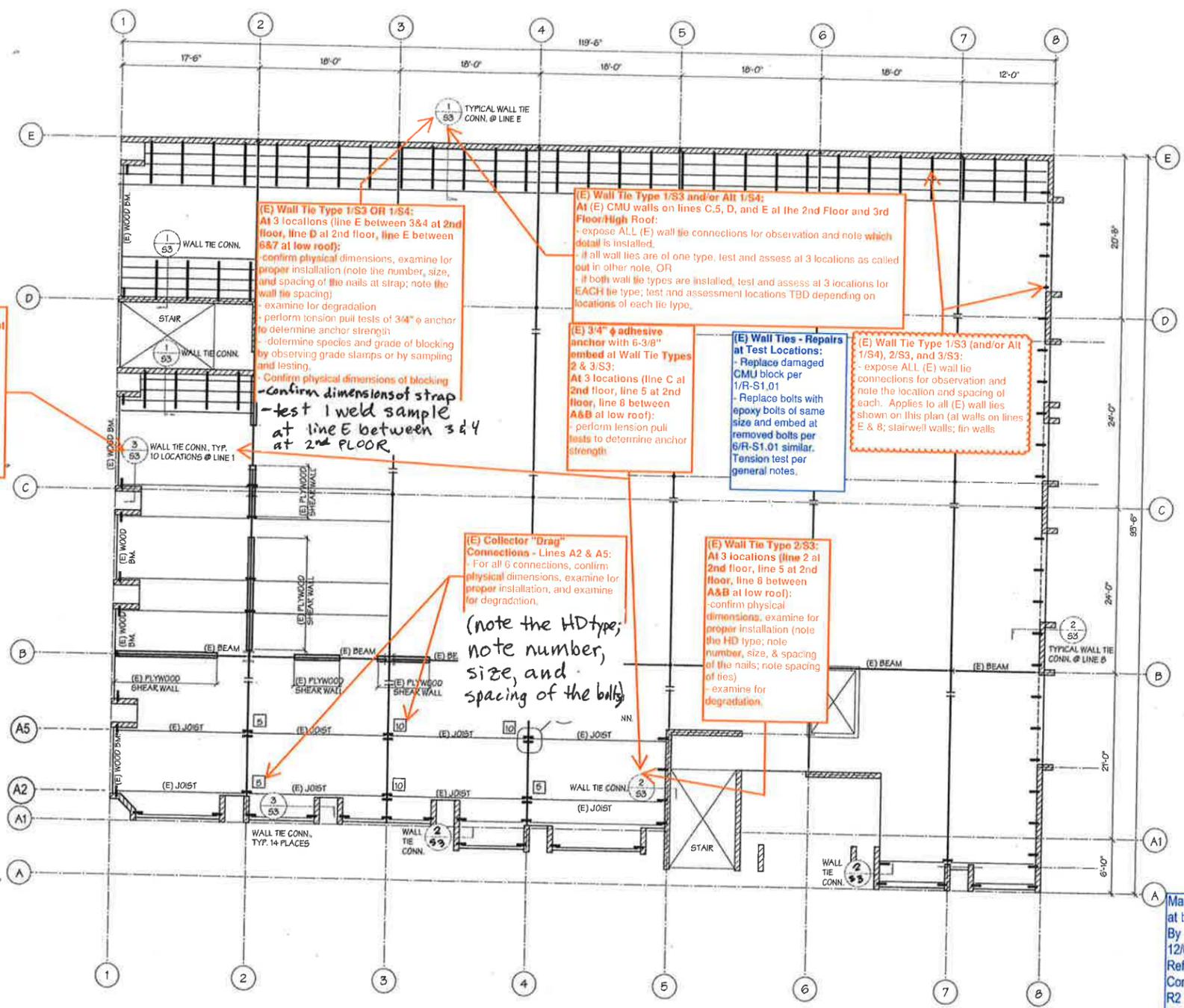
3 NEW WALL TIE DETAIL WHERE EXISTING JOIST IS ADJACENT TO WALL
1" = 1'-0"



2 NEW WALL TIE DETAIL WHERE EXISTING JOIST ARE PERPENDICULAR TO WALL
1" = 1'-0"



1 NEW WALL TIE DETAIL WHERE EXISTING JOIST ARE PARALLEL TO WALL
1" = 1'-0"



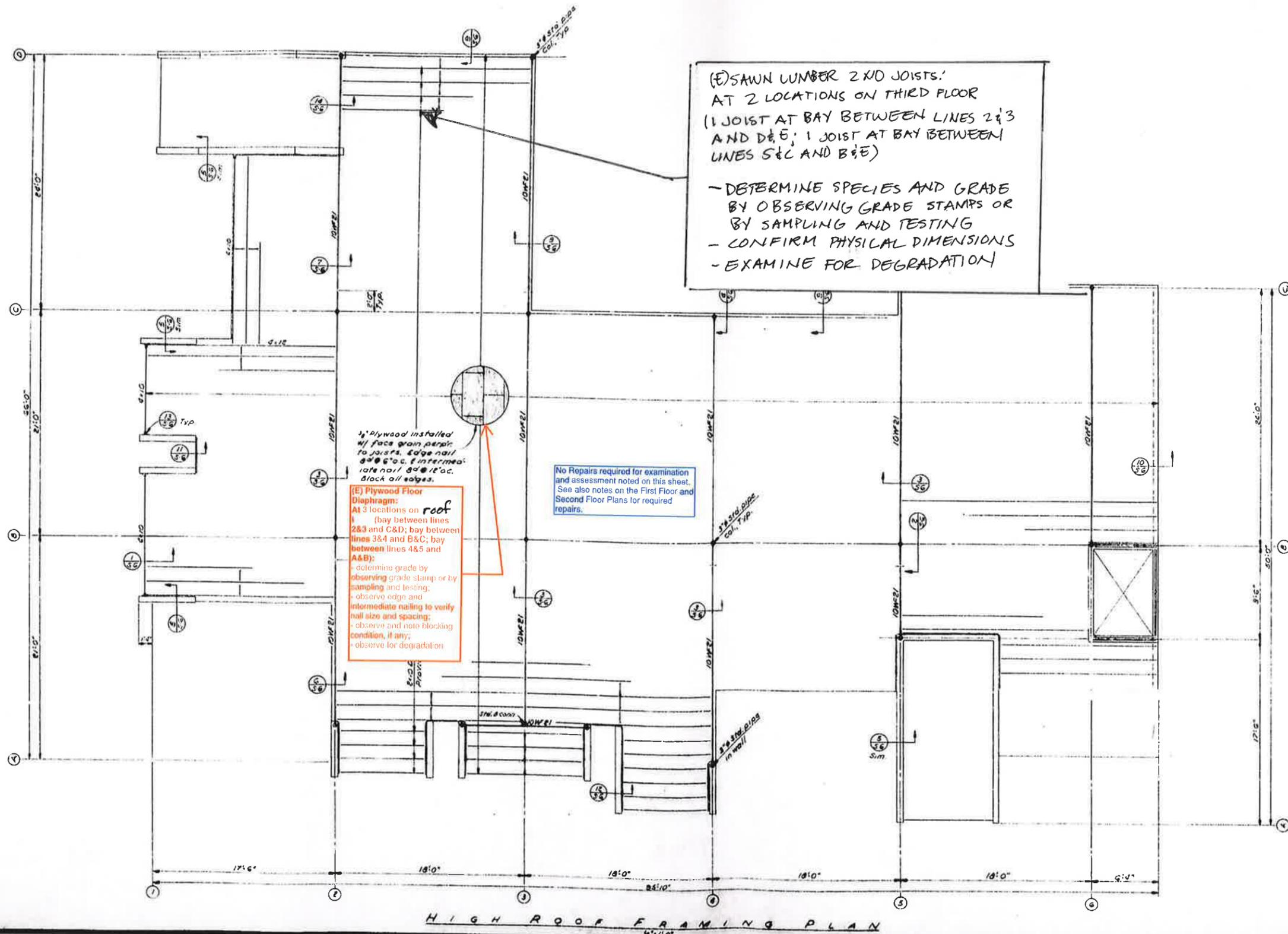
LATERAL FORCE RESISTING ELEMENTS
2ND FLOOR TO 3RD FLOOR
— PRIMARY
- - - SECONDARY

SECOND FLOOR FRAMING PLAN
1/8" = 1'-0"

- NOTES:
- WORK THIS LEVEL: NEW WALL & FLOOR TIES BELOW SECOND FLOOR. SEE PLAN FOR WALL & FLOOR TIES ABOVE CEILING (THIRD FLOOR FRAMING).
 - SEE S1 FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
 - STRUT TIE DESIGNATION. SEE 4/S3.
 - WALL TIE-SEE 1/S3, 2/S3, 3/S3 AND PLAN.

Markup for repair work at testing locations By LZD of KPW 12/8/17 Ref. REH Report Comment D.2 #2 R2 Markup 6/20/18 Ref. DSA comments received 3/27/18 R3 Markup 8/3/18 for DSA Approval

Markup for material testing scope of work By LZD of KPW 3/1/17 R1 Markup 12/19/17 Ref. REH Report Material Testing Comments R2 Markup 6/22/18 Ref. DSA comments received 3/27/18 R3 Markup 8/7/18 for DSA approval.



HIGH ROOF FRAMING PLAN

Markup for repair work at testing locations
 By LZD of KPW
 12/6/17
 Ref. REH Report Comment D.2 #2
 R2 Markup 6/20/18
 Ref. DSA comments received 3/27/18
 R3 Markup 8/3/18 for DSA Approval

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APPROVALS

ARCHITECT'S SEAL

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CONSTRUCTION**

ISSUE TITLE

**REH REPORT
REVISIONS 3**

ISSUE DATE 08/07/18

NOLL & TAM JOB NUMBER 21603.00

REVISIONS

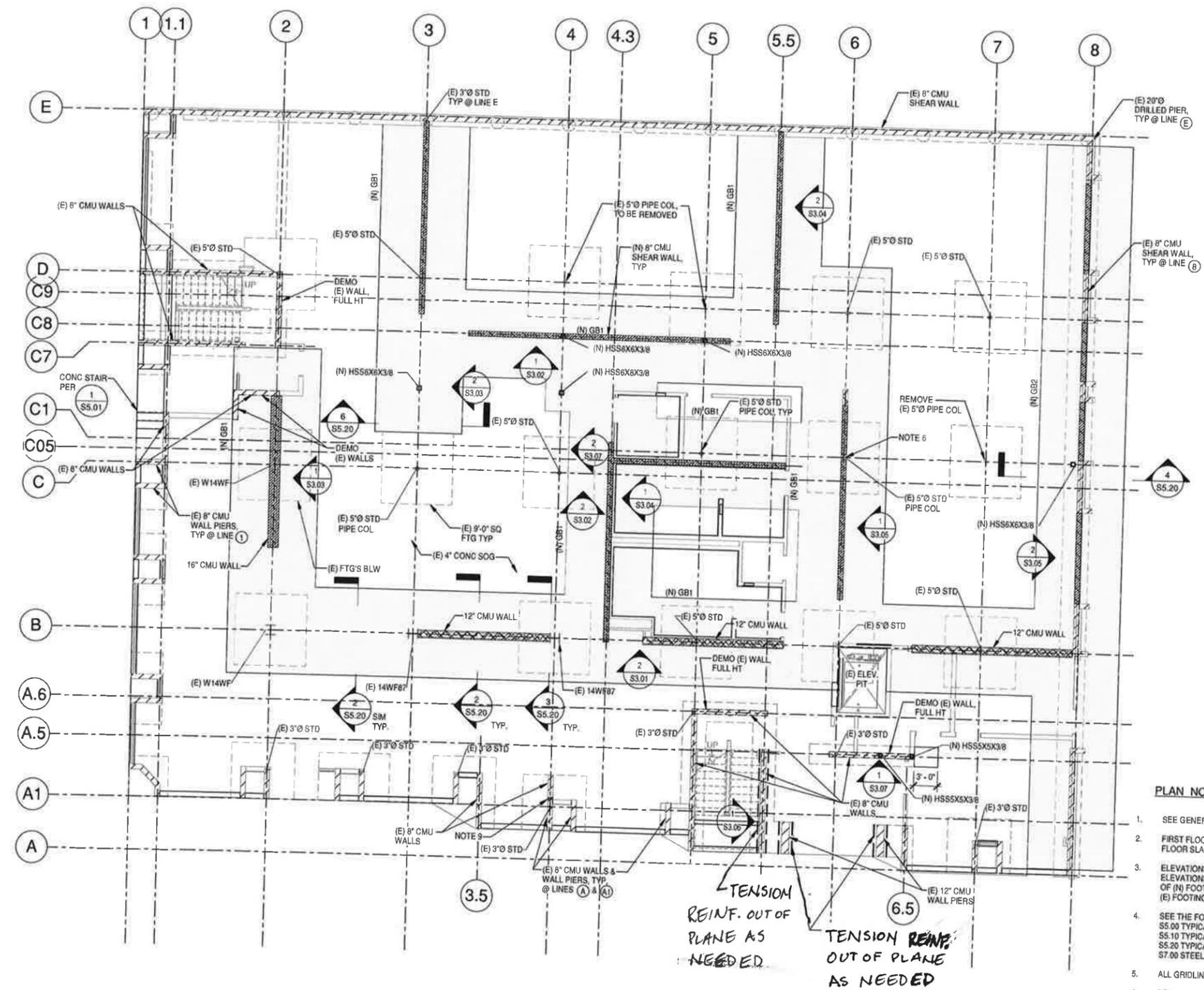
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SHEET TITLE

**FIRST FLOOR &
FOUNDATION PLAN**

SHEET NUMBER

S2.01



PLAN NOTES:

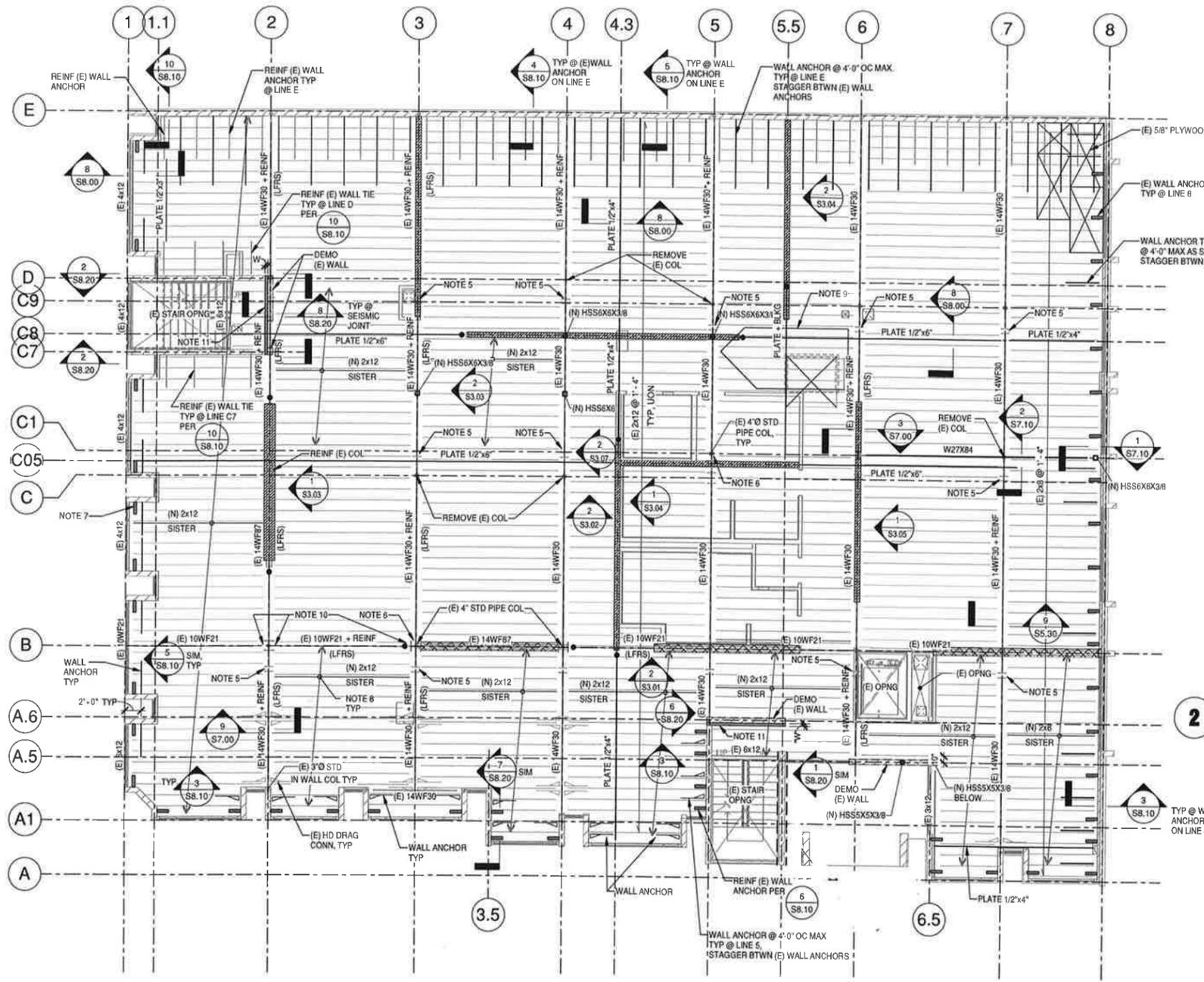
- SEE GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS ON SHEETS S1.00 & S1.01
- FIRST FLOOR TOP OF SLAB IS 0'-0". RELATIVE SLAB ELEVATIONS WITH RESPECT TO FIRST FLOOR SLAB REFERENCE ELEVATION ARE SHOWN THUS: TOC -0'-4", ETC.
- ELEVATIONS OF BOTTOM OF (E) FOOTINGS WITH RESPECT TO FIRST FLOOR SLAB REFERENCE ELEVATIONS ARE SHOWN THUS: -3'-8", ETC., AND ARE TO BE V.I.F. ELEVATIONS OF BOTTOM OF (N) FOOTINGS AND GRADE BEAMS ARE TO MATCH ELEVATIONS OF BOTTOM OF ADJACENT (E) FOOTINGS, U.O.N.
- SEE THE FOLLOWING SHEETS FOR TYPICAL DETAILS NOT SPECIFICALLY REFERENCED:
S5.00 TYPICAL MASONRY DETAILS
S5.10 TYPICAL CONCRETE DETAILS
S5.20 TYPICAL FOUNDATION DETAILS
S7.00 STEEL DETAILS
- ALL GRIDLINES TO BE V.I.F.
- REINF. (E) COLUMN PER DETAIL 6/S7.00
- REFER TO ARCH FOR LOCATIONS OF SLAB DEPRESSIONS
- REFER TO ARCH AND MEP FOR LOCATIONS OF EQUIPMENT AND ANCHORAGE
- SAWCUT (E) CMU WALL THROUGH FULL THICKNESS TO CREATE VERTICAL JOINT

1 FIRST FLOOR AND FOUNDATION PLAN
1/8" = 1'-0"

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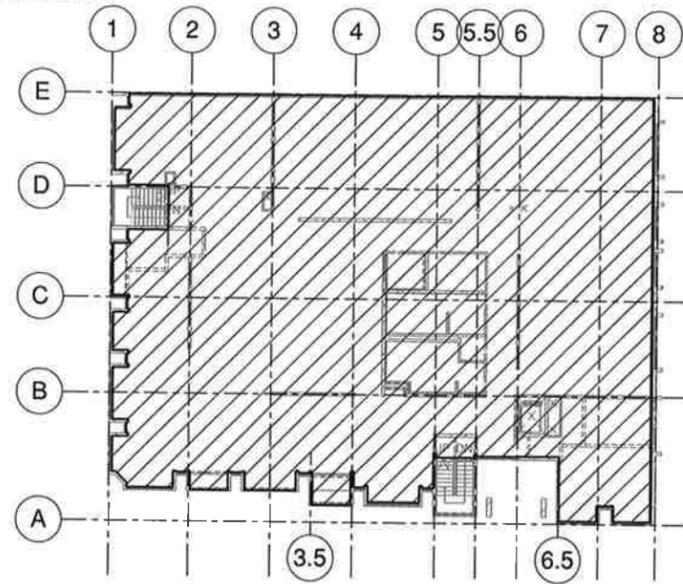
1 2nd FLOOR FRAMING PLAN

1/8" = 1'-0"



2 2nd FLOOR RAILING PLAN FOR PLYWOOD DIAPHRAGM

1" = 20'-0"



NOTES:
10d NAILS @ 4" OC EN

PLAN NOTES:

- SEE GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS ON SHEETS S1.00 & S1.01
- SECOND FLOOR TOP OF GYPCRETE IS 11'-10", RELATIVE TO FIRST FLOOR SLAB ELEVATION OF 0'-0".
- SEE S2.01 FOR CMU WALL THICKNESSES, UON.
- SEE THE FOLLOWING SHEETS FOR TYPICAL DETAILS NOT SPECIFICALLY REFERENCED:
S5.10 TYPICAL MASONRY DETAILS
S7.00 TYPICAL STEEL DETAILS
S9.00 TYPICAL WOOD DETAILS
- REIN. (E) HINGE CONNECTION PER 8/S7.10.
- REIN. (E) COLUMN PER 6/S7.00.
- (E) WALL TIE
- SISTER (N) 2x12 @ (E) 2x12 OR (N) 2x8 @ (E) 2x8
- INFILL (E) OPNG.
- REIN (E) CONN.
- SEISMIC JOINT, SEE 4/S8.20 FOR DIM "W".

noll tam
architects and planners
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

KPW
STRUCTURAL ENGINEERS, INC.
55 HARRISON STREET
Suite 550
OAKLAND, CA 94607
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Peralta Community College District
Berkeley City College
2118 Milvia Street
Rehabilitation

APPROVALS

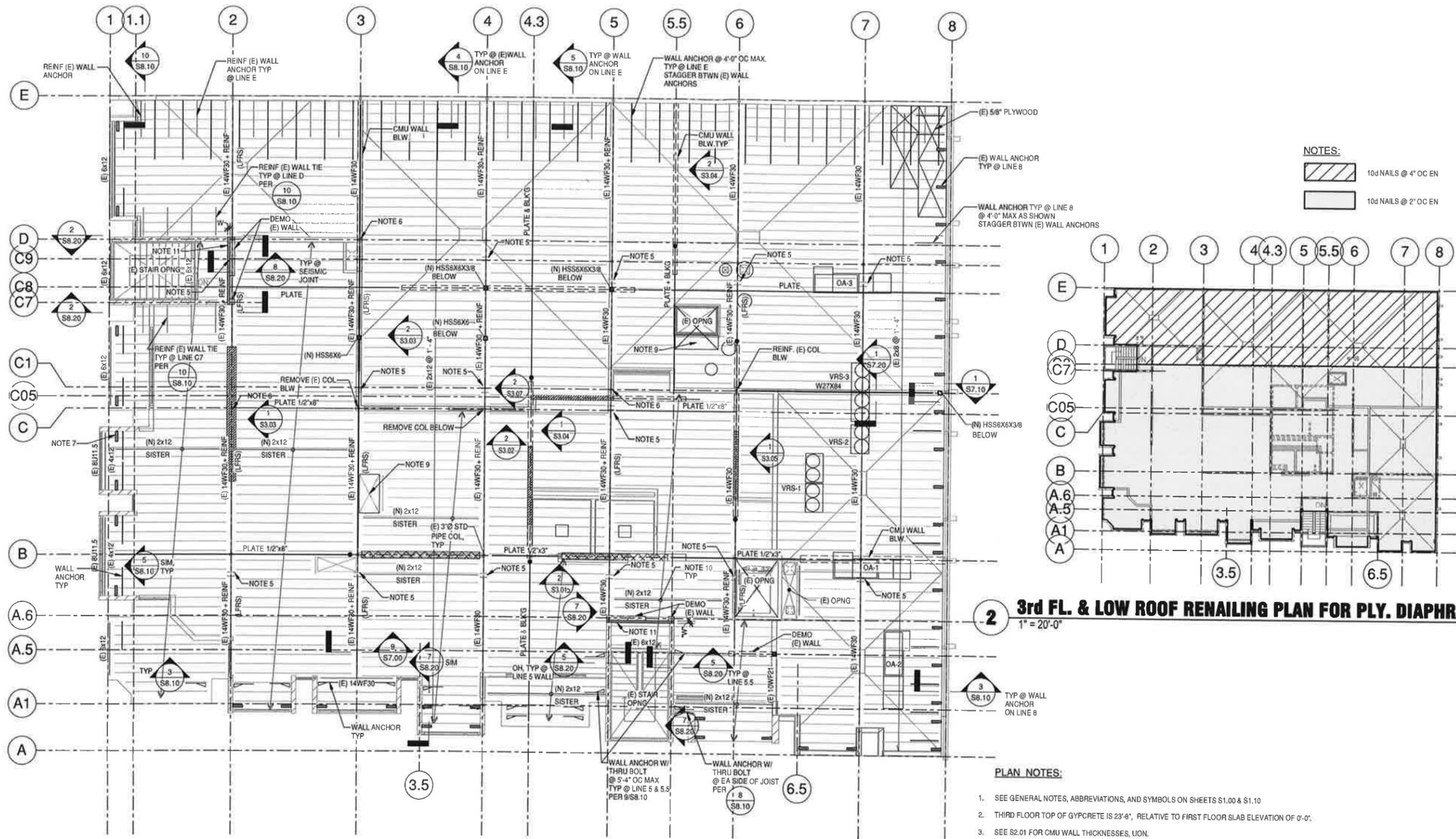
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CONSTRUCTION

ISSUE TITLE		
REH REPORT REVISIONS 3		
ISSUE DATE	08/07/18	
NOLL & TAM JOB NUMBER	21603.00	
REVISIONS		
NO.	DATE	DESCRIPTION

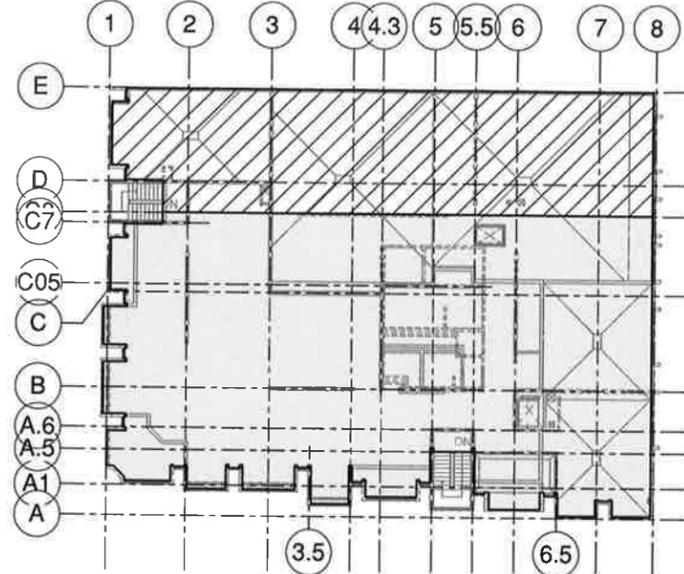
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SECOND FLOOR FRAMING PLAN

SHEET NUMBER
S2.02

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NOTES:
 10d NAILS @ 4" OC EN
 10d NAILS @ 2" OC EN



2 3rd FL. & LOW ROOF REINLING PLAN FOR PLY. DIAPHRAGM
 1" = 20'-0"

PLAN NOTES:

- SEE GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS ON SHEETS S1.00 & S1.10
- THIRD FLOOR TOP OF GYPCRETE IS 23'-8", RELATIVE TO FIRST FLOOR SLAB ELEVATION OF 0'-0".
- SEE S2.01 FOR CMU WALL THICKNESSES, UON.
- SEE THE FOLLOWING SHEETS FOR TYPICAL DETAILS NOT SPECIFICALLY REFERENCED:
 S5.10 TYPICAL MASONRY DETAILS
 S7.00 TYPICAL STEEL DETAILS
 S8.00 TYPICAL WOOD DETAILS
- REIN. (E) HINGE CONNECTION PER DETAIL 8/S7.00.
- REIN. (E) COLUMN BELOW
- (E) WALL TIE
- OA-2 MECH EQUIPMENT W/ (N) PSL FRAMING, SAD & SMD FOR LOCATION, FOR PARTIAL FRAMING PLAN SEE 4/S8.00
- INFILL (E) OPENING
- SISTER (N) 2x12 @ (E) 2x12 OR (N) 2x8 @ (E) 2x8
- SEISMIC JOINT, SEE 4/8.20 FOR DIM "W"

EQUIPMENT SCHEDULE	
MARK	MAX EQUIPMENT WT (LBS)
OA-1	1000
OA-2	1000
OA-3	1000
VRS-1	1700
VRS-2	900
VRS-2	1700

1 3rd FLOOR & LOW ROOF FRAMING PLAN
 1/8" = 1'-0"



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Peralta Community College District
 Berkeley City College
 2118 Milvia Street
 Rehabilitation

APPROVALS

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ISSUE TITLE		
REH REPORT REVISIONS 3		
ISSUE DATE	08/07/18	
NOLL & TAM JOB NUMBER	21603.00	
REVISIONS		
NO.	DATE	DESCRIPTION

SHEET TITLE
THIRD FLOOR & LOW ROOF FRAMING PLAN

SHEET NUMBER

S2.03

APPROVALS

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ISSUE TITLE

**REH REPORT
REVISIONS 3**

ISSUE DATE 08/07/18

NOLL & TAM JOB NUMBER 21603.00

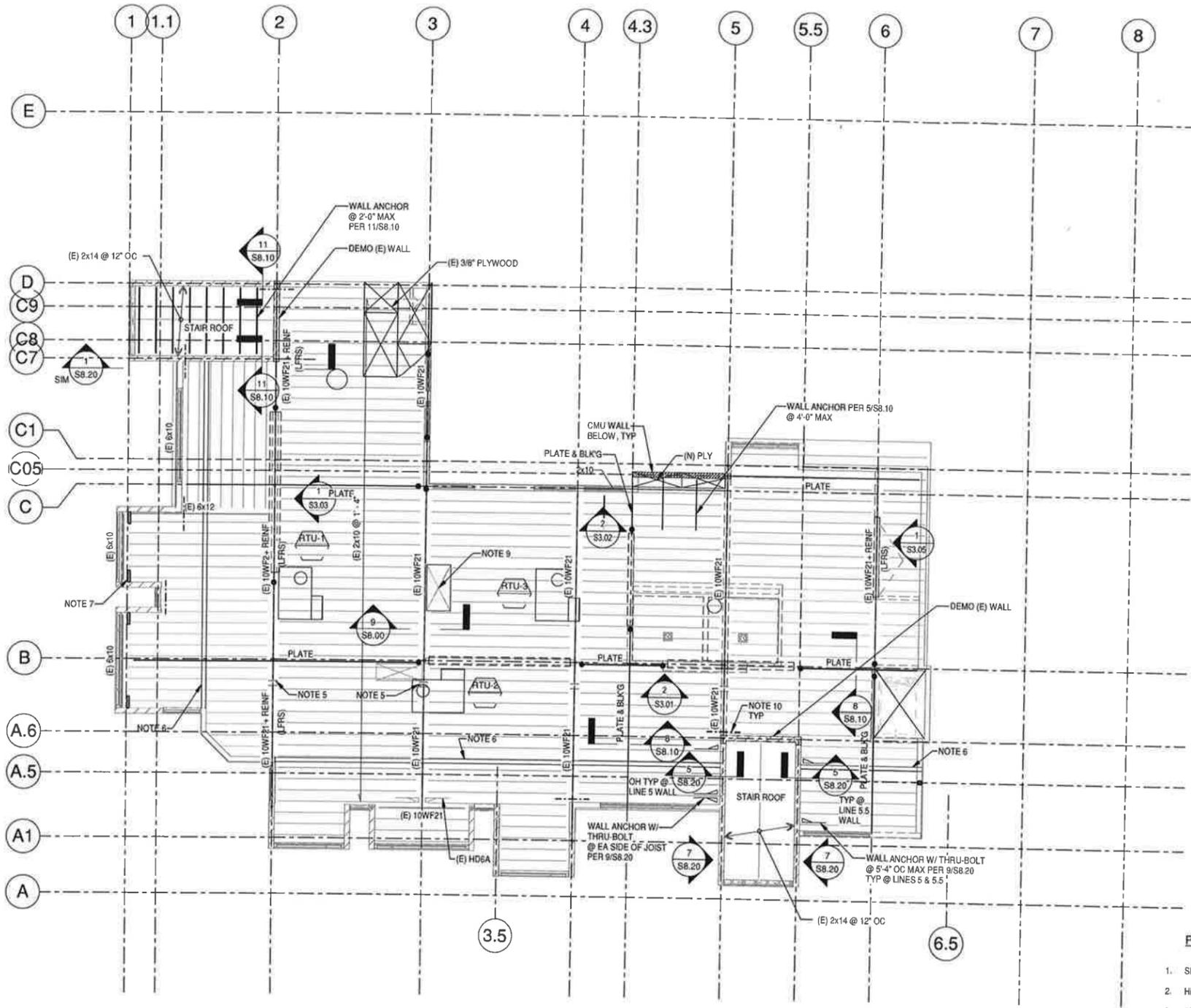
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SHEET TITLE

HIGH ROOF FRAMING PLAN

SHEET NUMBER

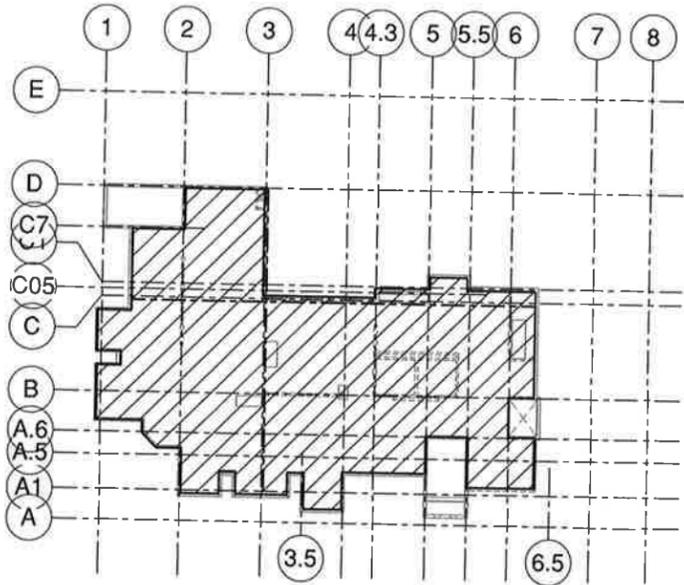
S2.04



1 HIGH ROOF FRAMING PLAN
1/8" = 1'-0"

NOTES:

- 10d NAILS @ 4" OC EN
2 1/2" OC EN @ BOUNDARY
3" OC EN @ PANEL EDGES
- ENHANCED DIAPHRAGM CONNECTION TO WALL OR COLLECTOR. SEE S5.31 AT WALLS & S8.00 AT COLLECTORS.



2 HIGH ROOF RAILING PLAN FOR PLYWOOD DIAPHRAGM
1" = 20'-0"

PLAN NOTES:

1. SEE GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS ON SHEETS S1.00 & S1.01
2. HIGH ROOF TOP OF DECK IS 35'-8", RELATIVE TO FIRST FLOOR SLAB ELEVATION OF 0'-0".
3. SEE S2.01 FOR CMU WALL THICKNESSES, UON.
4. SEE THE FOLLOWING SHEETS FOR TYPICAL DETAILS NOT SPECIFICALLY REFERENCED:
S5.10 TYPICAL MASONRY DETAILS
S7.00 TYPICAL STEEL DETAILS
S8.00 TYPICAL WOOD DETAILS
5. REINF. (E) HINGE CONNECTION
6. ROOF SCREEN
7. (E) WALL TIE
8. MECH EQUIPMENT W/ (N) PSL FRAMING, SAD & SMD FOR LOCATION. FOR PARTIAL FRAMING PLAN SEE 4/S8.00
9. INFILL (E) OPENING
10. MST STRAP & BLKG
11. SEISMIC JOINT, SEE 4/S8.20 FOR DIM "W".

GENERAL NOTES

1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PROJECT SPECIFICATIONS.
2. ALL WORK SHALL MEET OR EXCEED THE MINIMUM STANDARDS OF THE 2016 CALIFORNIA BUILDING CODE AND ALL APPLICABLE CODES AND ORDINANCES.
3. INFORMATION CONTAINED WITHIN THESE DOCUMENTS SHALL NOT BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE APPLICABLE CODES.
4. CONTRACTOR SHALL EXAMINE THE DOCUMENTS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WHICH MAY BE FOUND PRIOR TO THE START OF WORK.
5. CONTRACTOR SHALL REVIEW ALL DOCUMENTS TO COORDINATE WITH THE (E) BLDG CONDITIONS. ANY VARIATIONS AND DISCREPANCIES THAT ARISE IN THIS REVIEW ARE TO BE BROUGHT IMMEDIATELY TO THE ARCHITECT'S ATTENTION.
6. THE CONTRACTOR AND ALL SUBCONTRACTORS ARE REQUIRED TO VISIT AND INSPECT THE SITE PRIOR TO CONSTRUCTION OR ORDERING ANY MATERIALS.
7. ALL DETAILS, SCHEDULES, ADDENDA AND SPECIFICATIONS BOUND SEPARATELY ARE A PART OF THE CONTRACT DOCUMENTS.
8. ITEMS MARKED "NIC" ARE NOT IN CONTRACT. SUCH ITEMS ARE INCLUDED IN THE DOCUMENTS WHEN CONTRACTOR'S COORDINATION IS REQUIRED OR FOR CLARIFICATION OF PROJECT LIMITS.
9. DIMENSIONS:
 - A. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM THE DRAWINGS.
 - B. OPENINGS: DOOR DIMENSIONS ARE TO THE FACE OF JAMB, UNLESS LOCATED UNDIMENSIONED DOORS 4" FROM FINISHED FACE OF INTERSECTING PARTITION TO HINGE EDGE OF DOOR. REFER TO DETAILS FOR LOCATION OF DIMENSIONS OF WINDOWS AND OTHER OPENINGS.
 - C. ALL DIMENSIONS TO WALLS ARE TO THE FACE OF STUD, UNLESS NOTED.
 - D. CEILING HEIGHT DIMENSIONS ARE FROM FINISHED FLOOR TO FINISHED FACE OF CEILING, UNLESS NOTED.
 - E. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY GENERAL CONTRACTOR AND ALL SUBCONTRACTORS PRIOR TO PROCEEDING WITH CONSTRUCTION.
 - F. COORDINATE WITH EQUIPMENT CONTRACTORS FOR ROUGH-IN DIMENSIONS AND TEMPLATES.
 - G. ALL DIMENSIONS NOTED "CLEAR" OR "CLR" MUST BE STRICTLY MAINTAINED. "CLEAR" MEANS DIMENSION FROM FACE OF FINISH TO FACE OF FINISH OR OBJECT.
 - H. ALL DIMENSIONS NOTED "VERIFY" OR "VIP" ARE TO BE CHECKED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY VARIANCE FROM THE REQUIRED DIMENSIONS MUST BE BROUGHT IMMEDIATELY TO THE ARCHITECT'S ATTENTION.
10. DETAILS MARKED "TYPICAL" SHALL APPLY IN ALL CASES, UNLESS NOTED.
11. WHERE NO SPECIFIC DETAIL IS SHOWN, THE FRAMING OR CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION ON THE PROJECT.
12. EXISTING CONDITIONS TO REMAIN, UNLESS OTHERWISE NOTED.
13. THE CONTRACTOR SHALL MEET WITH THE ARCHITECT PRIOR TO THE START OF DEMOLITION TO NOTE WHAT ITEMS, IF ANY, ARE TO BE SALVAGED OR REUSED. REFER TO DIVISION 1 OF THE PROJECT SPECIFICATIONS.
14. THE DRAWINGS INDICATE THE GENERAL EXTENT OF (N) CONSTRUCTION NECESSARY FOR THE WORK, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE. ALL DEMO AND (N) WORK NECESSARY FOR A FINISHED JOB, IN ACCORDANCE WITH THE INTENTIONS OF THE CONTRACT DOCUMENTS, IS INCLUDED REGARDLESS OF WHETHER SHOWN IN THE CONTRACT DOCUMENTS.
15. (E) BUILDING AND SITE DOCUMENTATION IS BASED ON "AS-BUILT" DRAWINGS AND OBSERVATIONAL SITE INVESTIGATIONS. ACTUAL BUILT CONDITIONS MAY VARY. CONTRACTOR IS TO USE CAUTION IN DEMOLITION, AND IS TO NOTIFY ARCHITECT IMMEDIATELY IF ANY VARIATIONS OR DISCREPANCIES ARE UNCOVERED.
16. ALL (E) DIMENSIONS AND HEIGHTS/ELEVATIONS MUST BE FIELD VERIFIED PRIOR TO PROCEEDING WITH CONSTRUCTION.
17. PROTECT ALL (E) BUILDING AND SITE CONDITIONS TO REMAIN.

SHEET INDEX

GENERAL

- GD.DD COVER SHEET
- GD.D1 SHEET INDEX, GENERAL NOTES
- G1.11 CODE SUMMARY, GROSS AREA DIAGRAMS
- G1.12 OCCUPANCY & EXITING, PLUMBING FIXT CALCS
- G1.13 ACCESSIBILITY COMPLIANCE DIAGRAMS
- G3.21 MOUNTING HTS, STANDARD CODE & ACCESSIBILITY DTLS
- G3.22 STANDARD CODE & ACCESSIBILITY DTLS

CIVIL

- .V1 TOPOGRAPHIC SURVEY
- C.D1 FIRE SERVICE PLAN

ARCHITECTURE

- AD.D1 ABBREVIATIONS, SYMBOLS
- A2.D1 SITE PLAN
- A2.31.2 FLOOR PLAN- 1ST FLR, TI
- A2.32.2 FLOOR PLAN- 2ND FLR, TI
- A2.33.2 FLOOR PLAN- 3RD FLR, TI
- A2.34.1 HIGH ROOF PLAN
- A3.11 EXT ELEV- NORTH, SOUTH
- A3.12 EXT ELEV- EAST, WEST
- A3.21 BLDG SECTIONS
- A4.11 ENLG PLANS & SECS- STAIR 1, MAIN ENTRY
- A4.12 ENLG PLANS- STAIR 2, ELEVATOR
- A4.21 ENLG PLANS- RESTROOMS

12
TOTAL SHEETS: 21

NOLL & TAM ARCHITECTS

729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

APPROVALS

FILE NUMBER: 01-C1

DIVISION OF THE STATE ARCHITECT

APP# 01-XXXXXX

ACS: _____ PLS: _____ SSS: _____
Date: _____

**Peralta Community College District
Berkeley City College
2118 Milvia Street
Rehabilitation**

2118 Milvia Street
Berkeley, CA 94704

ISSUE DATE: **6/29/2018**

N&T JOB #: **21603.00**

#	DATE	DESCRIPTION
	6/29/18	REH RESUBMITTAL

6/29/18 REH RESUBMITTAL

SHEET TITLE

**SHEET INDEX,
GENERAL NOTES**

SHEET NUMBER

G0.01

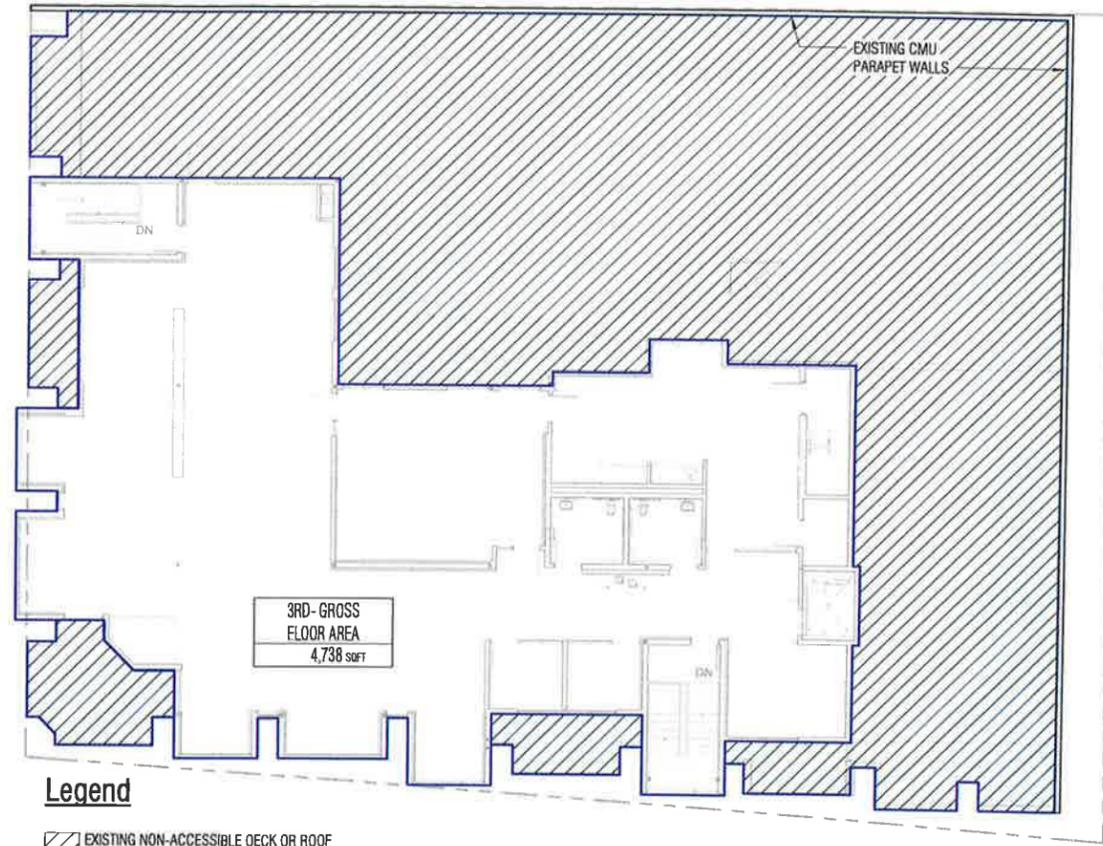
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DIVISION OF THE STATE ARCHITECT
APP# 01-XXXXXX
ACS _____ FLS _____ SSS _____
Date: _____

**Peralta Community College District
Berkeley City College
2118 Milvia Street
Rehabilitation**
2118 Milvia Street
Berkeley, CA 94704

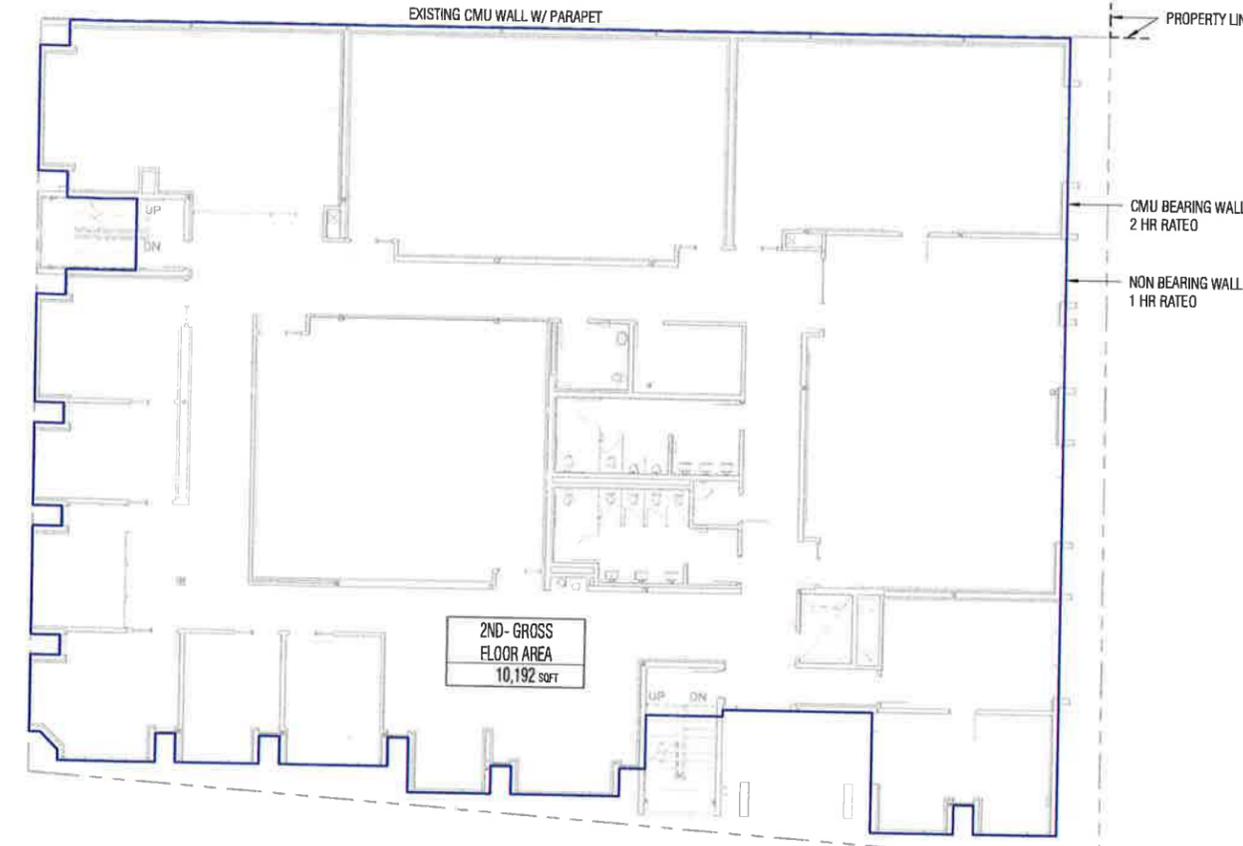
ISSUE DATE: 6/29/2018
N&T JOB #: 21603.00
REVISIONS
DATE DESCRIPTION
6/29/18 REH RESUBMITTAL

SHEET TITLE
**CODE SUMMARY,
GROSS AREA
DIAGRAMS**

SHEET NUMBER
G1.11



3 GROSS FLOOR AREA- 3RD FLOOR
61.11 3/32" = 1'-0"

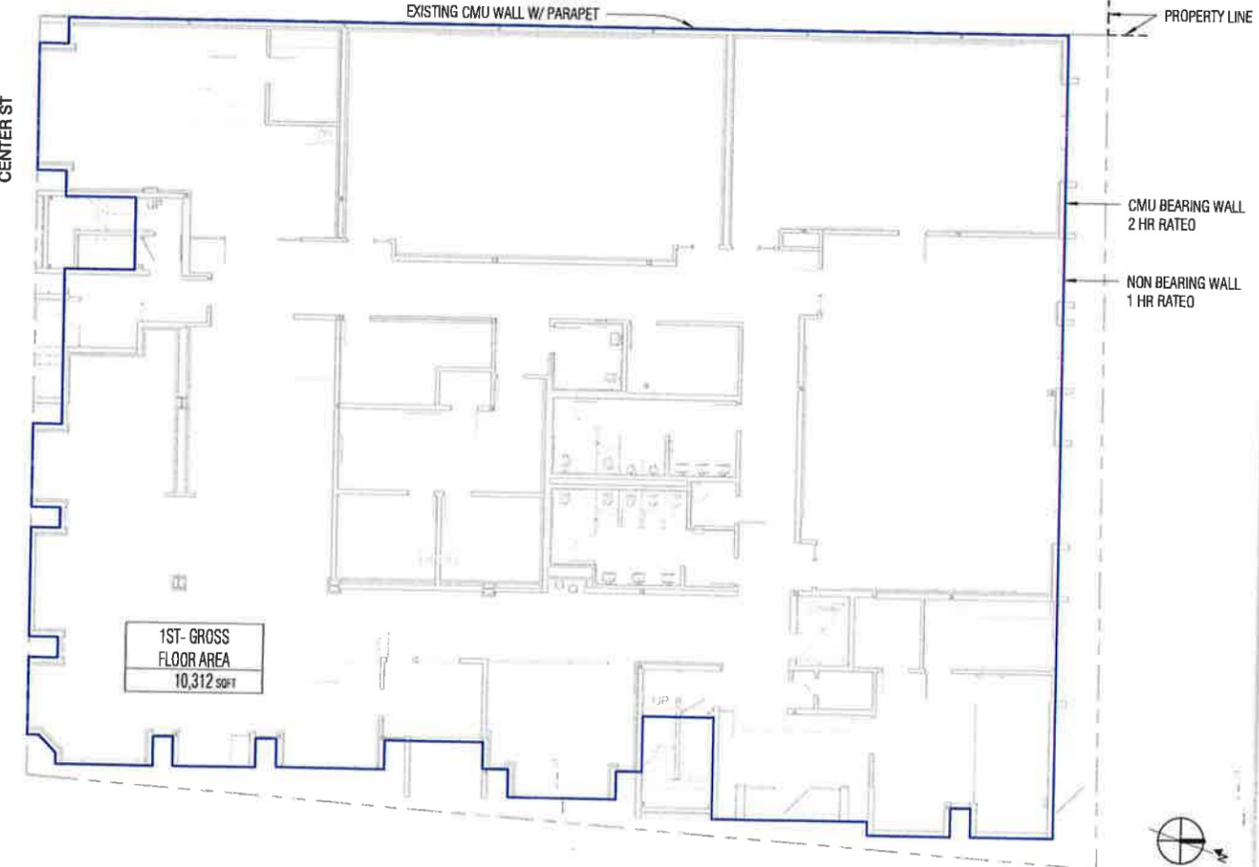


2 GROSS FLOOR AREA- 2ND FLOOR
61.11 3/32" = 1'-0"

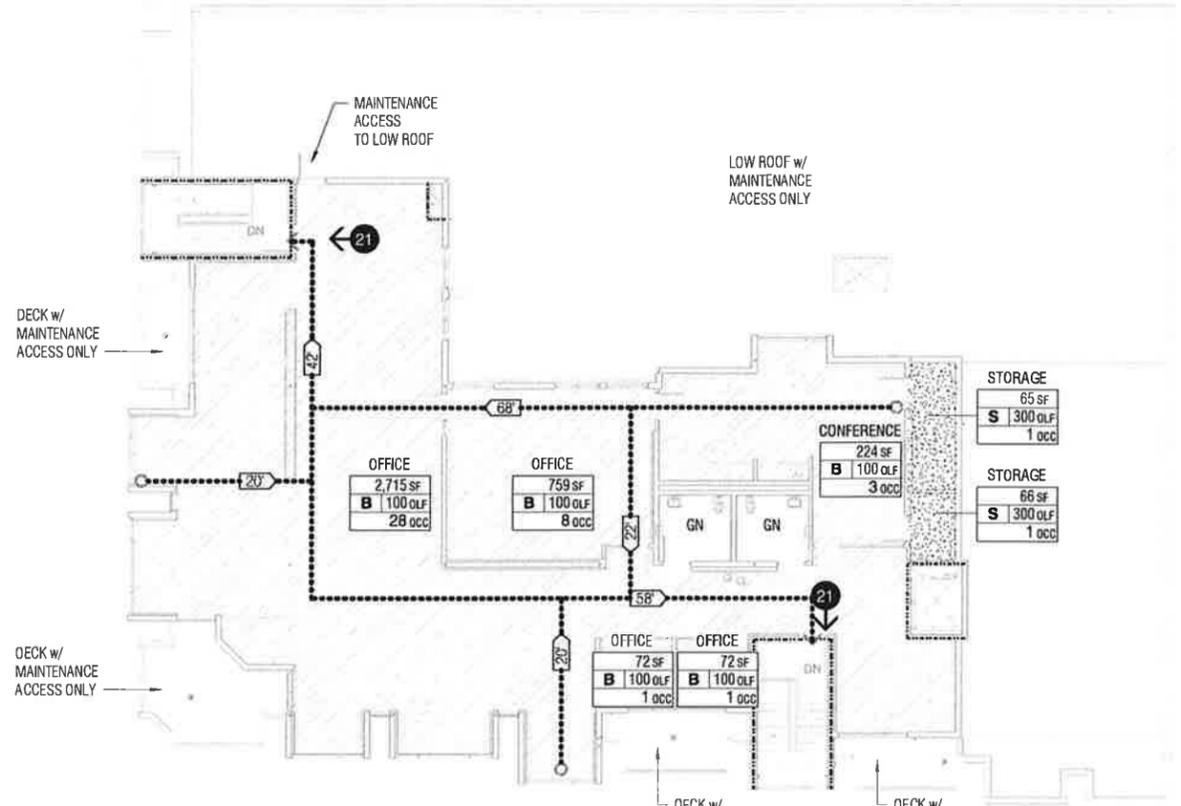
CODE SUMMARY

PROJECT ADDRESS: 2118 MILVIA STREET, BERKELEY CA 94704
PARCEL NUMBER: APN 057-2022-005-01
BUILDING CODES: CALIFORNIA BUILDING CODE, 2016 EDITION
CONSTRUCTION TYPE: III-B
ORIGINAL CONSTRUCTION: 1966
RENOVATION AND SEISMIC UPGRADES: 1995 (CITY OF BERKELEY BUILDING, PLANNING & COMMUNITY DEVELOPMENT OFFICES)
FIRE SPRINKLER: NEW FIRE SPRINKLER SYSTEM THROUGHOUT
FIRE ALARM: NEW FIRE ALARM SYSTEM
OCCUPANCY: A-3 ASSEMBLY
B BUSINESS, COMMUNITY COLLEGE CLASSROOM
BUILDING AREA*:
1ST FLOOR 10,312 SQFT < 11,875 OK
2ND FLOOR 10,192 SQFT
3RD FLOOR 4,738 SQFT
TOTAL 25,242 SQFT, GROSS < 35,625 OK
BUILDING HEIGHT*: 3 STORIES, APPROX 37 FT
ALLOWABLE AREA: 35,625 SQFT = [9,500 + (9,500 x 0.25)] x 3 [SEC 506.2.3]
TABULAR ALLOWABLE = 9,500 SQFT (TABLE 506.2)
FRONTAGE INCREASE FACTOR = 0.25 [SEC 506.3]
ALLOWABLE PER STORY = 11,875 SQFT [SEC 506.2.3]
ALLOWABLE HEIGHT: 3 STORIES, 75 FT [TABLE 504.3, 504.4, SPRINKLERED W/O AREA INCREASE]
*NO CHANGES IN AREA OR HEIGHT OF BUILDING WILL RESULT FROM THE PROPOSED PROJECT

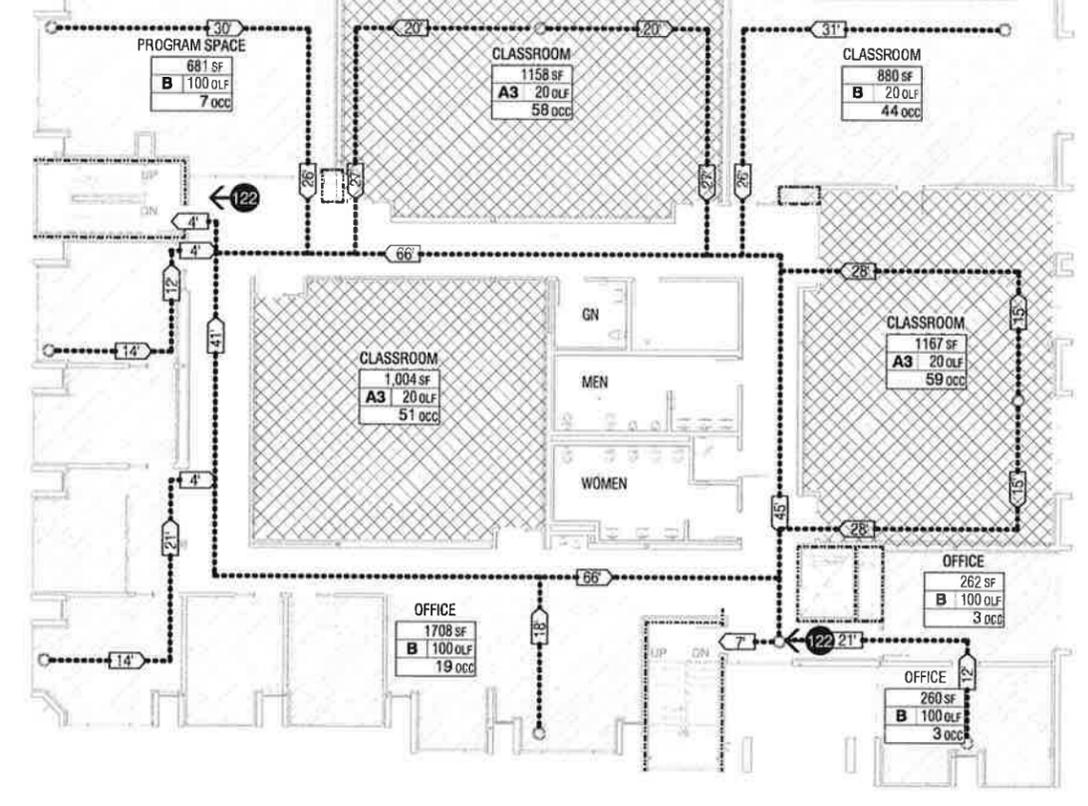
FIRE RESISTIVE RATING:
TABLE 601, UON
PRIMARY STRUCTURAL FRAME 0 HOURS
EXTERIOR BEARING WALLS 2 HOURS
INTERIOR BEARING WALLS 0 HOURS
EXTERIOR NONBEARING WALLS/PARTITIONS (TABLE 602) 1 HOUR
INTERIOR NONBEARING WALLS/PARTITIONS 0 HOURS
FLOORS: 0 HOURS
SHAFT (713.4) 1 HOUR
STAIR ENCLOSURE 1 HOUR
STAIR DOORS 45 MINS
PROTECTION OF OPENINGS (NORTH WALL) BASED ON DISTANCE TO PROPERTY LINE
OPENINGS AT UNPROTECTED SPRINKLERED = 25% ALLOWABLE (TABLE 705.B)
WALL AREA FIRST FLOOR: 1100.99 sf (without openings)
25% of WALL, max allowed for openings is 0.25 x 1100.99 = 275.24 sf
WALL AREA SECOND FLOOR: 1100.99 sf (without openings)
25% of WALL, max allowed for openings is 0.25 x 1100.99 = 275.24 sf
WALL ABOVE SECOND FLOOR - PARAPET - NOT INCLUDED IN WALL AREA
WINDOW TYPE AA = 64.11 SF
WINDOW TYPE AB = 63.10 SF
WINDOW TYPE AC = 40.89 SF
PROPOSED OPENINGS PER FLOOR = 64.11 + (2) 63.10 + (2) 40.89 = 272.09
272.09 PROPOSED < 275.24 MAX ALLOWED
ELEVATOR LOBBY & HOISTWAY OPENING PROTECTION-COMPLY WITH 713 AND 3006
1. 3006.2, EXCEPTION 2 - PROTECTION NOT REQUIRED AT LEVEL OF EXIT DISCHARGE WHERE EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM
2. 3006.3, EXCEPTION 5 - SMOKE CONTAINMENT SYSTEM COMPLYING WITH ICC ES AC 77 PROVIDED IN LIEU OF ENCLOSED ELEVATOR LOBBY
PARAPETS AT NORTH AND WEST WALLS-COMPLY WITH 705.11.1
STAIR EXIT DISCHARGE-COMPLY WITH 102B.1
1. 102B.1, EXCEPTION 1 @ MILVIA STREET EXIT. < 50 PERCENT
2. 102B.1 EXCEPTION 2 @ CENTER STREET EXIT. 1 HOUR VESTIBULE
UNDERSTAIR STORAGE-COMPLY WITH 1011.7.3
SKYLIGHT-COMPLY WITH CHAPTER 24 REQUIREMENTS FOR GLAZING



1 GROSS FLOOR AREA- 1ST FLOOR
61.11 3/32" = 1'-0"

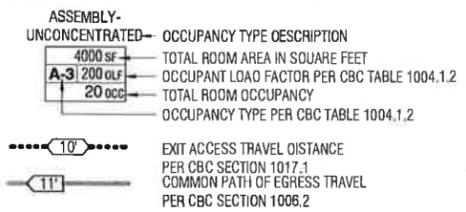


3 OCCUPANCY/EXITING DIAGRAM- 3RD FLOOR
61.12 3/32" = 1'-0"

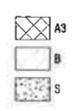


2 OCCUPANCY/EXITING DIAGRAM- 2ND FLOOR
61.12 3/32" = 1'-0"

SYMBOL LEGEND



OCCUPANCY TYPE



REQUIRED PLUMBING FIXTURES-BY OCCUPANCY TYPE

PER 2016 CPC CH. 4 TABLE 422.1 & TABLE A

Plumbing Fixture Occupant Load (PER 2016 CPC CH. 4 TABLE A)	S.F.	Load Factor	Total Occ.	Male/Female
Group A3 - Assembly classrooms, study area	6,923	50	138.5	70
Group B - Business classrooms and offices	10,203	200	51.0	26
Group S - Storage	674	5,000	0.1	1 Moved into B
Total	17,800	n/a	190	97

Note: Per 2016 CPC Table A Footnote **Accessory Areas may be excluded (for example: hallway, restroom, stair enclosure)

Required Plumbing Fixtures (PER 2016 CPC CH. 4 TABLE 422.1)	No. of M/W	Men (WCs)	Women (WCs)	Men (Urinal)	Men Lavs	Women Lavs	Drink. Fount.
A3 Req'd Fixtures	70	1	3	1	1	1	1
B Req'd Fixtures	27	1	2	1	1	1	1
Total Required Fixtures		2	5	2	2	2	2
Total Fixtures Provided*		4	10	4	6	6	6

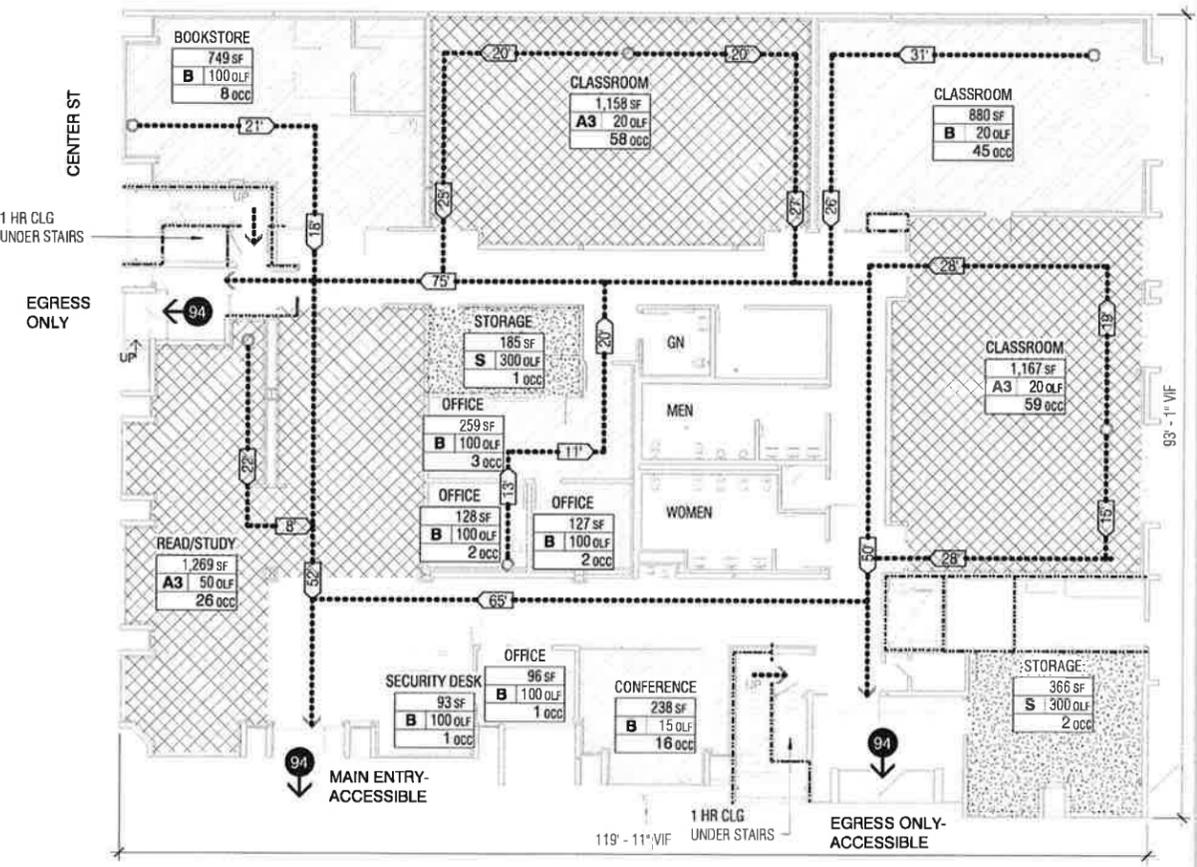
*Additionally, 4 gender neutral WCs and lavs provided
 ** Per Table 422.1 Footnote 3. The Total number of required water closets for females shall not be less than the total number of required water closets and urinals for males. [BSC] This requirement shall not apply when single occupancy toilet facilities are provided for each sex in an A or E occupancy with an occupant load of less than 50. Either
 a. The required urinal shall be permitted to be omitted or
 b. If installed, the urinal shall not require a second water closet to be provided for the female.

OCCUPANCY AND EXITING

PER 2016 CPC TABLE 1004.1.2

	1st Floor	2nd Floor	3rd Floor	Total
Group A3 - Assembly classrooms, study area	3,594	3,329	0	6,923
Group B - Business classrooms and offices	2,570	3,791	3,842	10,203
Group S - Storage	543	0	131	674
Total	6,707	7,120	3,973	17,800

FLOOR	AREA	OCCUPANT LOAD	OCCUPANTS
1st FLOOR			
OCCUPANCY GROUP			
Group A3 - Assembly classrooms	2,325	20	116
Group A3 - Assembly reading room	1,269	50	25
Group B - Business classrooms	880	20	44
Group B - Offices	1,690	100	17
Group S - Storage	543	300	2
Total	6,707		205
2nd FLOOR			
OCCUPANCY GROUP			
Group A3 - Assembly classrooms	3,329	20	166
Group B - Business classrooms	880	20	44
Group B - Offices	2,911	100	29
Total	7,120		240
3rd FLOOR			
OCCUPANCY GROUP			
Group B - Offices	3,842	100	38
Group S - Storage	131	300	0.44
Total	3,973		39
TOTAL	17,800		484



1 OCCUPANCY/EXITING DIAGRAM- 1ST FLOOR
61.12 3/32" = 1'-0"

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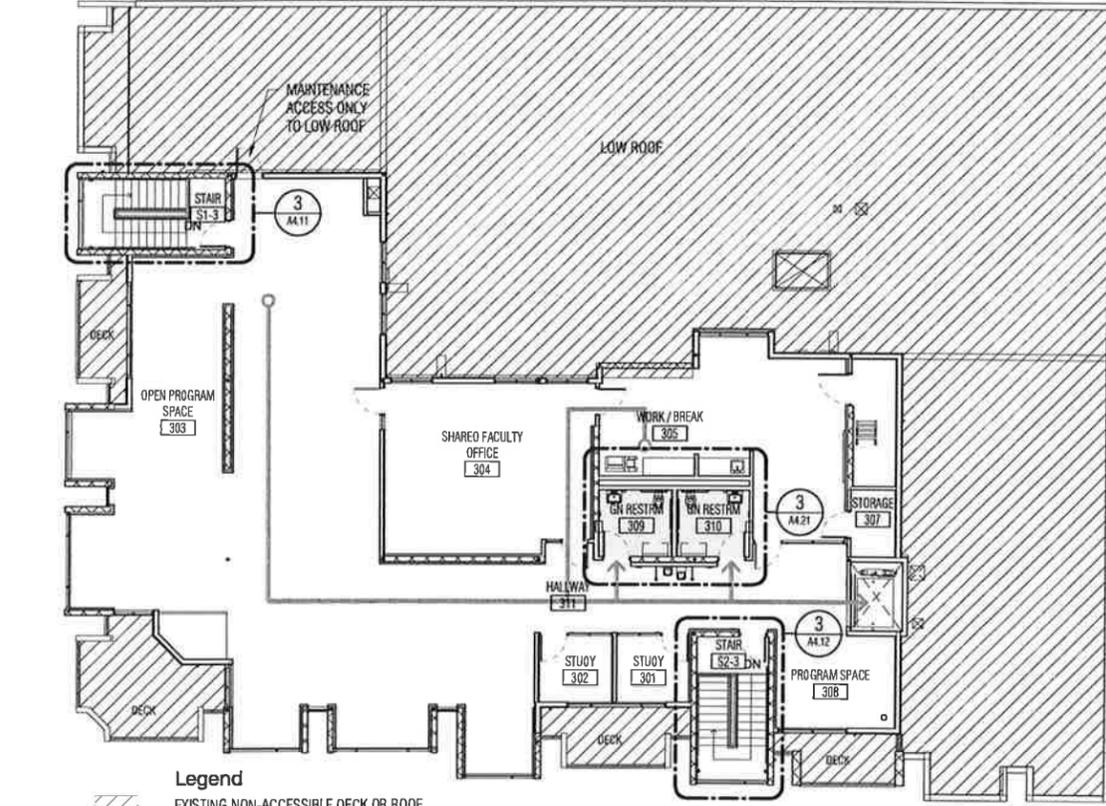
Peralta Community College District
Berkeley City College
2118 Milvia Street Rehabilitation
 2118 Milvia Street
 Berkeley, CA 94704

ISSUE DATE: 6/29/2018
 N&T JOB #: 21603.00
 REVISIONS
 DATE DESCRIPTION
 6/29/18 REH RESUBMITTAL

SHEET TITLE
OCCUPANCY & EXITING, PLUMBING FIXT CALCS

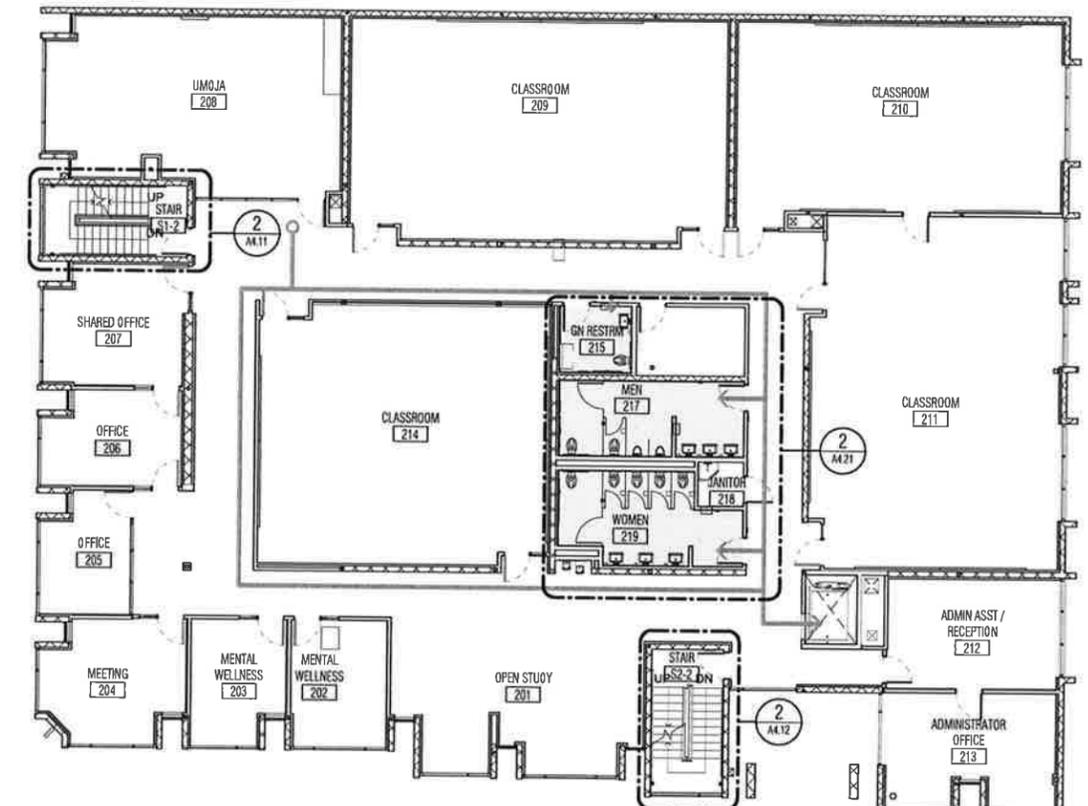
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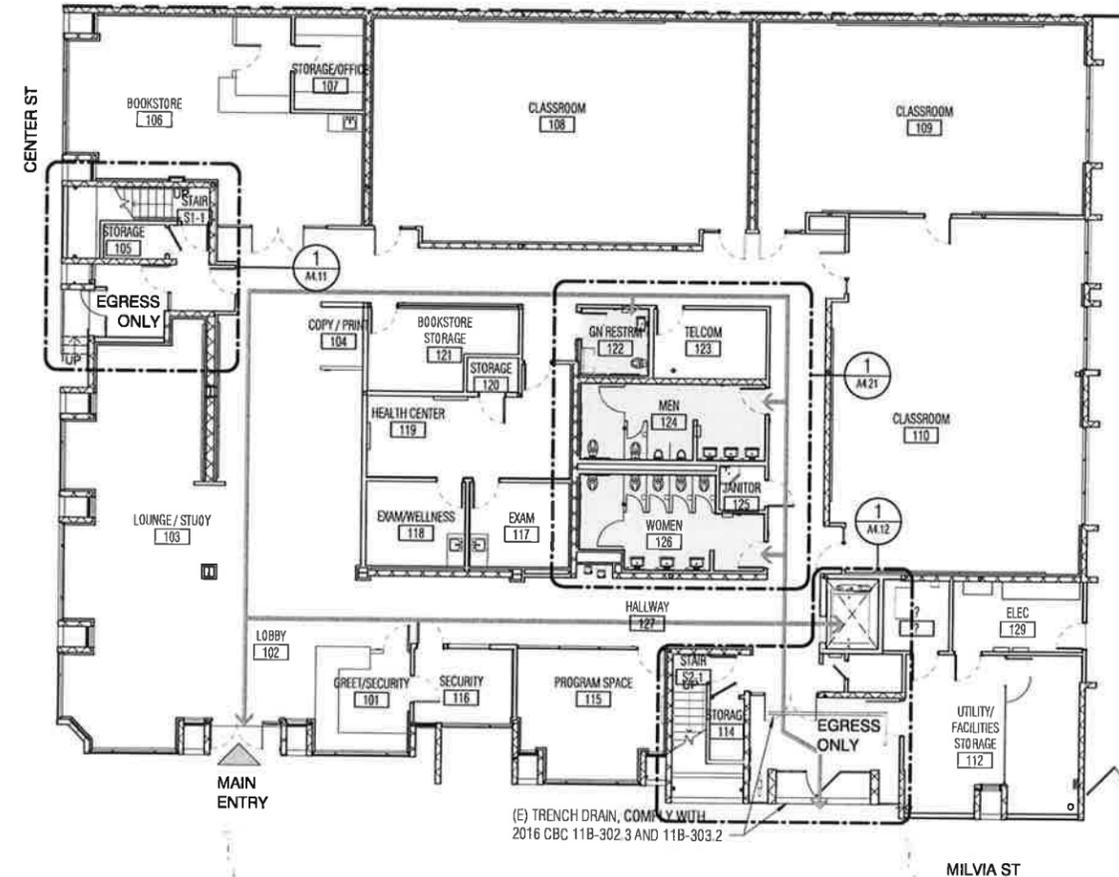


3 ACCESSIBILITY DIAGRAM - 3RD FLOOR
G1.13 3/32" = 1'-0"

Legend
 EXISTING NON-ACCESSIBLE DECK OR ROOF MAINTENANCE ACCESS ONLY



2 ACCESSIBILITY DIAGRAM - 2ND FLOOR
G1.13 3/32" = 1'-0"



1 ACCESSIBILITY DIAGRAM - 1ST FLOOR
G1.13 3/32" = 1'-0"

ACCESSIBLE PATH OF TRAVEL

ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A CONTINUOUS, BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAX SLOPE, OR VERTICAL CHANGES NOT EXCEEDING 1/4" MAX AND AT LEAST 44" WIDE PER CBC SECTION 11B-403.5.1. SURFACE IS SLIP RESISTANT, STABLE, FIRM, AND SMOOTH. CROSS SLOPES DOES NOT EXCEED 1:48 AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 1:20 UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL VERIFY THAT ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED OR WILL BE REMOVED UNDER THIS PROJECT, AND PATH OF TRAVEL COMPLIES WITH CBC.

ALL PATHS OF TRAVEL SHALL BE ACCESSIBLE.

SYMBOL LEGEND

- ACCESSIBLE PATH
- ACCESSIBLE FACILITIES
- BUILDING ENTRANCE

ACCESSIBILITY NOTES

1. SEE SHEETS G3.21 AND G3.22 FOR TYPICAL MOUNTING HEIGHTS, STANDARD CODE AND ACCESSIBILITY DETAILS.
2. SEE SHEETS G3.31- G3.33 FOR CODE REQUIRED SIGNAGE.

APPROVALS

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**Peralta Community College District
Berkeley City College
2118 Milvia Street
Rehabilitation**

2118 Milvia Street
Berkeley, CA 94704

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6/29/18	REH RESUBMITTAL

SHEET TITLE
ACCESSIBILITY COMPLIANCE DIAGRAMS

SHEET NUMBER
G1.13

SHEET NOTES

1. FDR INT PARTITION TYPE SCHEDULE, SEE A8.1D.
2. FDR DDDR SCHEDULE, SEE A8.4D.
3. FOR INT STOREFRONT SCHEDULE, SEE A8.6D.
4. ALL (E) DIMENSIONS AND HEIGHTS/ELEVATIONS MUST BE FIELD VERIFIED PRIOR TO PROCEEDING WITH CONSTRUCTION.

KEY NOTES

- D2-31 (E) STRUCTURAL COLUMN TO REMAIN, PROTECT, SSD
- 05-D3 STRUCTURAL COLUMN, SSO.
- 06-D2 BUILT-IN CASE/DRK.
- 09-D9 TACKABLE ACOUSTIC PANELS, 4' HT, B.O. PANEL MOUNTED AT +3'-0"
- 1D-D1 DISPLAY CASE
- 10-02 MARKER BOARD
- 27-01 FLAT PANEL DISPLAY, SEO

LEGEND

- (E) FRAMED PARTITION
- (E) CMU WALL
- (N) CMU WALL
- (N) MTL-STUD FRAMED PARTITION; FOR INT PARTITION TYPE SCHEDULE, SEE A8.1D
- 1 HR FIRE RATING

SEAL

APPROVALS

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Berkeley City College
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Rehabilitation**

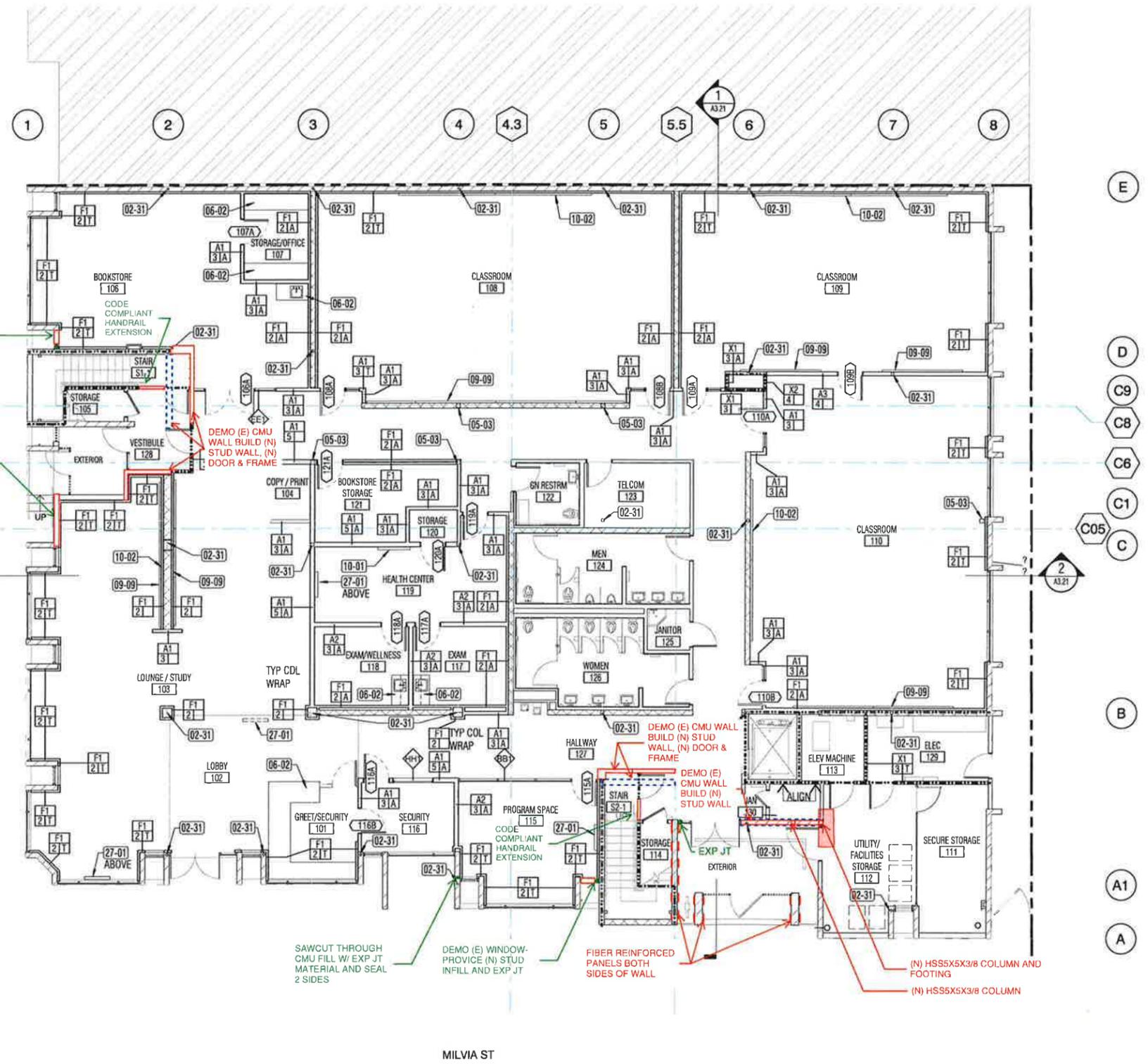
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SHEET TITLE
FLOOR PLAN- 1ST FLR, TI

SHEET NUMBER

A2.31.2



1 FLOOR PLAN- 1ST FLOOR, TI
1/8" = 1'-0"

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SHEET NOTES

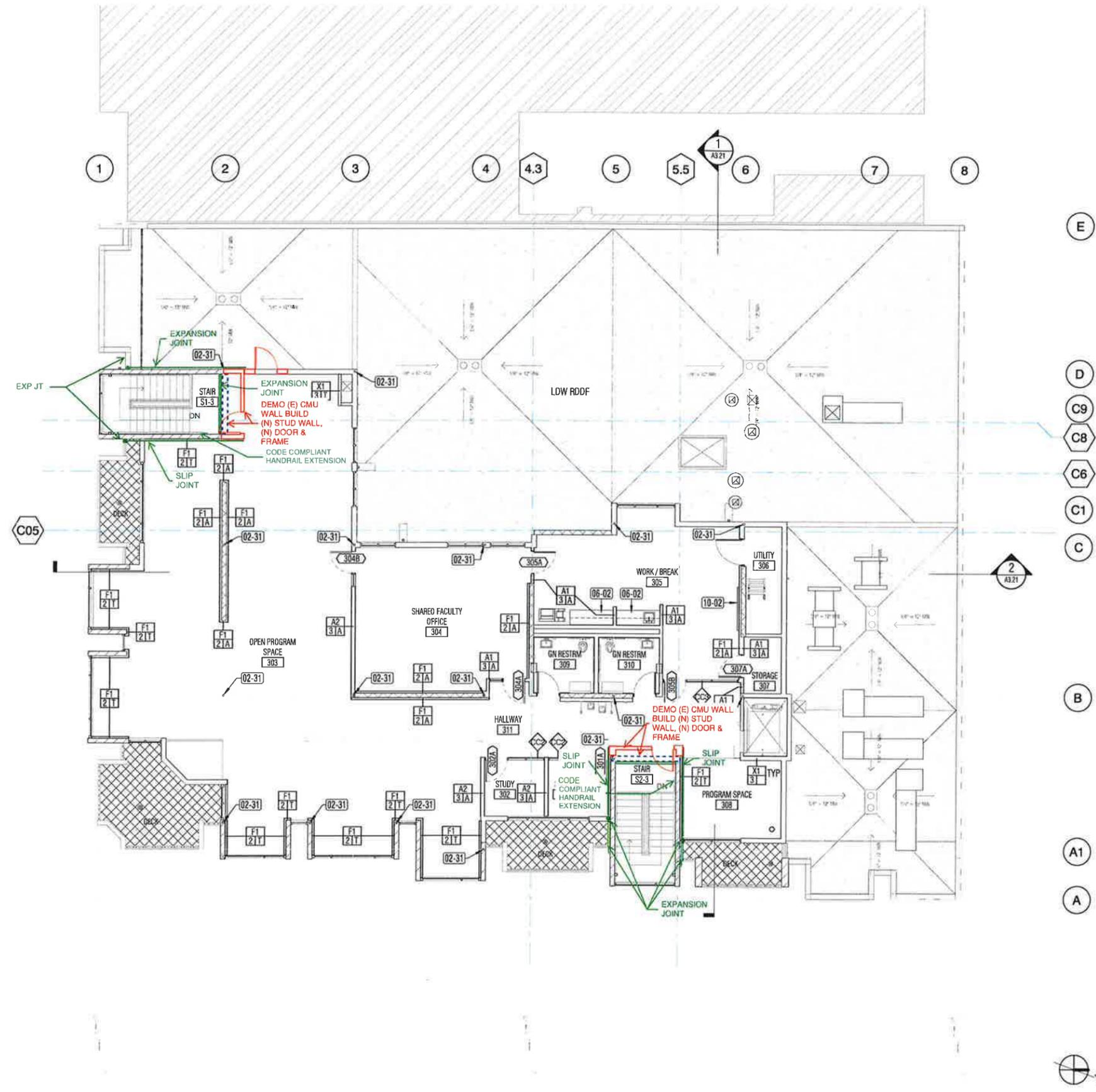
1. FDR INT PARTITION TYPE SCHEDULE, SEE A8.10.
2. FDR DDDR SCHEDULE, SEE A8.40.
3. FDR INT STOREFRONT SCHEDULE, SEE A8.50.
4. ALL (E) DIMENSIONS AND HEIGHTS/ELEVATIONS MUST BE FIELD VERIFIED PRIOR TO PROCEEDING WITH CONSTRUCTION.

KEY NOTES

- 02-31 (E) STRUCTURAL COLUMN TO REMAIN. PROTECT. SSD
- 06-02 BUILT-IN CASEWORK
- 10-02 MARKER BOARD

LEGEND

- (E) FRAMED PARTITION
- (E) CMU WALL
- (N) CMU WALL
- (N) MTL-STUD FRAMED PARTITION; FDR INT PARTITION TYPE SCHEDULE, SEE A8.10
- 1 HR FIRE RATING



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2118 Milvia Street
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SHEET TITLE
**FLOOR PLAN- 3RD
FLR, TI**

SHEET NUMBER
A2.33.2

SHEET NOTES

1. ALL NEW EXTERIOR FRAMED WALLS TO HAVE PLASTER FINISH TO MATCH (E) ADJACENT, WEATHER BARRIER, SHEATHING; THERMAL INSULATION FULL DEPTH, (1) LAYER OF GYP BD AT INTERIOR, UON.
2. FOR DOOR SCHEDULE, SEE A8.40.
3. FOR EXT STOREFRONT TYPES, SEE EXTERIOR ELEVATIONS. FOR EXT STOREFRONT & SKYLIGHT SCHEDULE, SEE A6.60.
4. ALL (E) DIMENSIONS AND HEIGHTS/ELEVATIONS MUST BE FIELD VERIFIED PRIOR TO PROCEEDING WITH CONSTRUCTION.
5. REPLACE TOPPING SLAB WHERE REMOVED, SEE DEMO PLANS AND SSD.
6. AT LOW, HIGH, AND STAIR TOWER ROOFS, PROVIDE NEW ROOFING AND PEDESTRIAN TRAFFIC WATERPROOFING SYSTEMS. INCLUDE NEW GSM FLASHINGS AT ALL PERIMETER WALLS AND CURBS, AND WALKPADS FROM ROOF ACCESS TO ALL ROOFTOP EQUIPMENT.

KEY NOTES

- 05-07 ROOF SCREEN / GUARORAIL.
- 06-06 INTERNAL ROOF CURB, SEE 5/A6.41.
- 08-01 ALUM STOREFRONT.
- 23-01 MECH EQUIP, SMD.

LEGEND

- PEDESTRIAN TRAFFIC WATERPROOFING
- ROOFING, 2" THICK MIN TAPERED INSUL
- BUILT UP CURB, WD-FRAMED, SEE 2 / A6.41
- BUILT UP CURB, CMU 3 / A6.41
- ROOF DRAIN/ OVERFLOW DRAIN, SPD
- ROOF DRAIN, SPD

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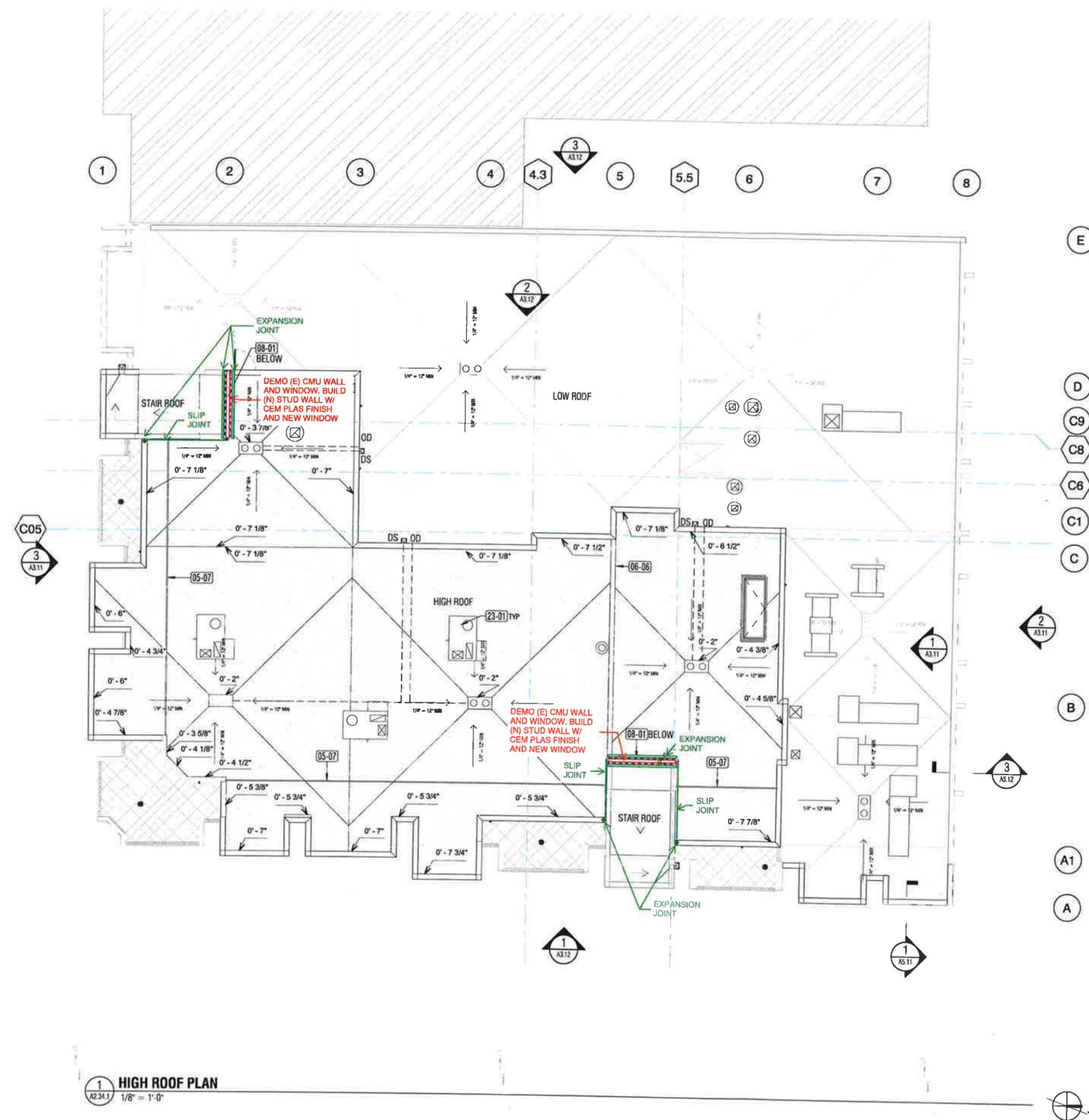
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6/29/18 REH RESUBMITTAL

SHEET TITLE
HIGH ROOF PLAN

SHEET NUMBER

A2.34.1



1 HIGH ROOF PLAN
A2.34.1 1/8" = 1'-0"

SHEET NOTES

- REMOVE/REPLACE (E) PLASTER AS REQD FOR INSTALLATION OF EXT STDREFRONTS AND WINDOWS. TIE-IN FLASHING AND PLASTER ASSEMBLY TO (E) WALL ASSEMBLY AND TEXTURE TO MATCH (E).
- ALL (E) DIMENSIONS AND HEIGHTS/ELEVATIONS MUST BE FIELD VERIFIED PRIOR TO PROCEEDING WITH CONSTRUCTION.

- 02-29 (E) SLOPED EXT WALL
- 02-51 (E) SLOPED STAIR ROOF
- 04-02 (E) CMU PARAPET
- 05-02 STL FENCE AND GATE. EMERGENCY EXIT ONLY.
- 05-07 RDDF SCREEN / GUARDRAIL
- 05-08 REINFORCE (E) GUARDRAIL
- 07-03 SAFETY RAIL AT RDDF HATCH
- 07-05 GSM SCUPPER AND DS, PTO.
- 07-06 GSM PARAPET CAP
- 08-01 ALUM STDREFRONT.
- 08-03 PROVIDE 4MM SAFETY FILM AT (E) FIXED LOWER LITE OF WINDDW. MODIFY (E) OPERABLE WINDDW HARDWARE TO LIMIT OPENING TO 4" MAX.
- 08-06 WALL LOUVER.
- 09-01 WD-FRAMED, PLASTER FINISH EXT INFILL WALL.
- 09-02 WD-FRAMED, PLASTER FINISH EXT KNEE WALL.

APPROVALS

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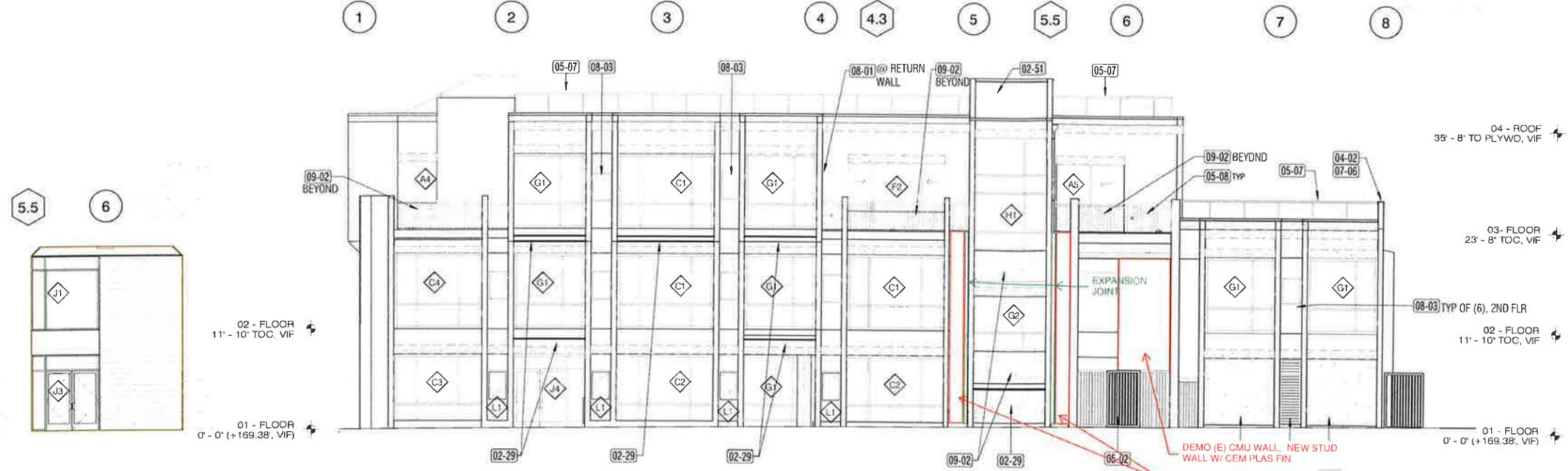
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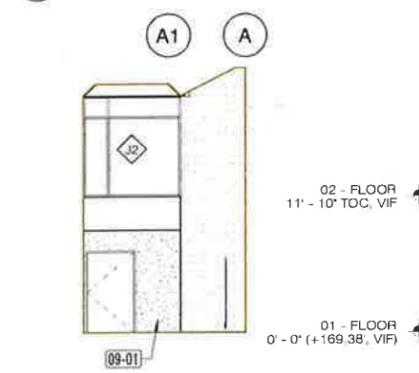
SHEET TITLE
EXT ELEVS- EAST, WEST

SHEET NUMBER

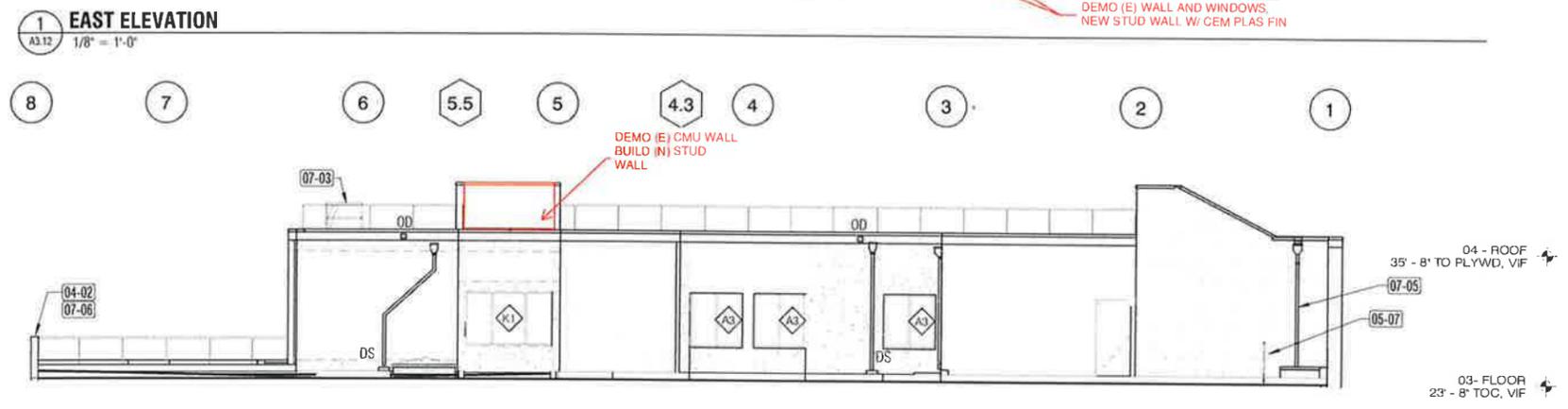
A3.12



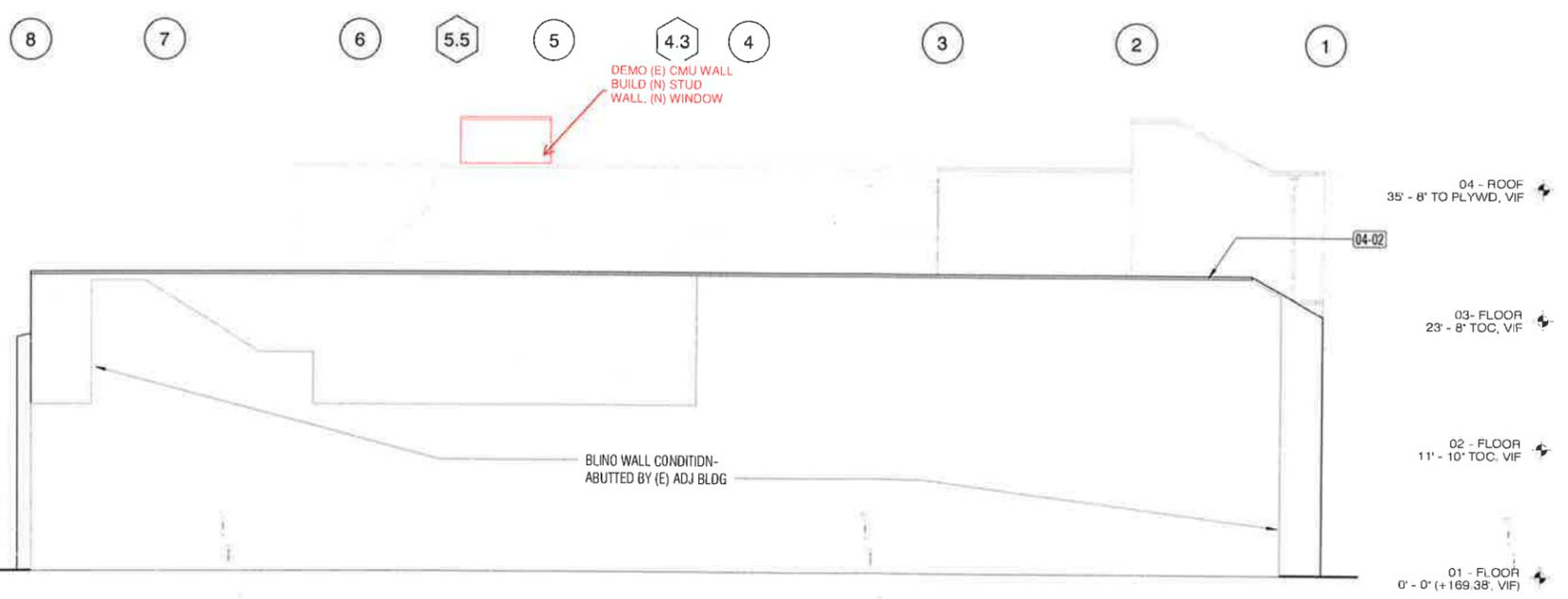
4 MILVIA ST VESTIBULE- WEST ELEV
A3.12 1/8" = 1'-0"



5 MILVIA ST VESTIBULE- NORTH ELEV
A3.12 1/8" = 1'-0"



2 WEST ELEVATION @ 3RD FLOOR
A3.12 1/8" = 1'-0"



3 WEST ELEVATION
A3.12 1/8" = 1'-0"

- (E) GLAZING TO REMAIN
- (N) GLAZING, SEE SCHEDULE FOR TYPE
- (E) OR (N) CMU - RECDAT
- (E) PCP OVER CMU - REPAIR, RECDAT
- (E) PCP - REPAIR, RECDAT
- (N) PCP - CDAT