

# UNIVERSITY OF CALIFORNIA, SANTA BARBARA

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SANTA BARBARA • SANTA CRUZ

OFFICE OF DESIGN & CONSTRUCTION SERVICES and PHYSICAL FACILITIES

CONTRACTING SERVICES

Building 439  
Santa Barbara, California 93106-1030  
Telephone (805) 893-3356  
Fax (805) 893-8592

**SENT VIA:** ☒ FAX ON THIS DATE  
☐ HAND DELIVERY ON THIS DATE  
☐ FEDERAL EXPRESS ON THIS DATE  
☐ UNITED PARCEL SERVICE ON THIS DATE

HOLDERS OF PLANS AND SPECIFICATIONS:

Materials Research Laboratory Infill, MRL, Bldg. 615  
Project No. FM150347S/981910

**Addendum No. 1**

April 15, 2015

Enclosed is **ADDENDUM NO. 1** to the Construction Documents on the above-captioned project.

Bid date has been changed from Friday, April 17, 2015 to Tuesday, April 21, 2015 at 2:30 PM to be held at:

CONTRACTING SERVICES  
Facilities Management, Bldg. 439,  
Door #E, Reception Counter  
University of California, Santa Barbara  
Santa Barbara, CA 93106-1030.

Late arrivals shall be disqualified. Please allow time for unforeseen traffic delays, securing a parking permit and potential parking problems.

  
Greg Moore  
Associate Director, Contracting Services

ADDENDUM No.1  
to the  
CONSTRUCTION DOCUMENTS  
April 15, 2015

**GENERAL**

The following changes, additions or deletions shall be made to the following document(s) as indicated; all other conditions shall remain the same.

**I. ADVERTISEMENT**

Item No.

- 1.1 **CHANGE** sentence beginning with “Bid Deadline” to read as follows:  
“Bids will not be accepted after **2:30 PM on April 21, 2015.**”

**II. SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

Item No.

- 2.1 **CHANGE** item 4. To read as follows:  
“Bids will be received on or before the Bid Deadline: 2:30 PM, April 21, 2015, and only at:  
Contracting Services  
Facilities Management, Building 439  
Door E, Reception Counter  
University of California, Santa Barbara  
Santa Barbara, California 93106-1030

**III. SPECIFICATIONS**

Item No.

- 3.1 **ADD** to Table of Contents, Division 9 – FINISHES, Section 09220 Portland Cement Plaster.
- 3.2 **ADD** to Table of Contents, Division 16 – ELECTRICAL, Section 16521 Exterior Lighting.
- 3.3 **REPLACE** in its entirety Section 02741 Asphalt Paving, Paragraph 2.5 A. with  
“1. Dowels: Galvanized steel, diameter  $\frac{3}{4}$  inch, minimum length 12 inches.”
- 3.4 **ADD** to Section 03300 CAST-IN-PLACE CONCRETE, PART 2 – PRODUCTS, 2.8 RELATED MATERIALS, paragraph to read as follows:  
“C. Expanded Polystyrene Block: Expanded Polystyrene Block shall be Harbor Foam Geofoam as manufactured by Harbor Foam, or equal. The EPS block shall be EPS 19 through EPS 46,

which have a minimum compressive strength of 5.8 psi at 1% deformation and a minimum modulus of 580 psi per ASTM D6817.”

- 3.5 **CHANGE** Section 08710 Door Hardware, Paragraph 3.7 B. Hardware Sets. Hardware Group 03 – Lab Exit Pair to read as follows:

**“Hardware Group 03 - LAB EXIT PAIR**

PR 4' 6" X 7' 0" X 1 3/4" X HMD X HMF X NONRTD

For use on door(s): 55B

Qty		Description	Catalog Number	Finish	Mfr
6	EA	HW HINGE	3CB1HW 4.5 X 4.5 NRP	630	IVE
1	SET	AUTO FLUSH BOLT	FB31P	630	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	PANIC HARDWARE	LD-9975-L-NL-03 SS-630	630/626	VON
1	EA	MORTISE CYLINDER	20-061 EV D	626	SCH
1	EA	COORDINATOR	COR X FL	628	IVE
2	EA	MOUNTING BRACKET	MB	689	IVE
2	EA	SURFACE CLOSER	4040XP SCUSH	689	LCN
2	EA	CUSH SHOE SUPPORT	4040-30	689	LCN
2	EA	ARMOR PLATE	8400 34" X 2" LDW	630	IVE
1	SET	JAMB SEALS	700ES	AL	NGP
1	SET	HEAD SEALS	700SA	CL	NGP
1	EA	ASTRAGAL	158NA	CL	NGP
2	EA	DOOR SWEEP	200NA	CL	NGP
1	EA	THRESHOLD	413SS SIA MS/LA	630	NGP”

- 3.6 **ADD** SECTION 09220 - PORTLAND CEMENT PLASTER, 7 pages, attached.

- 3.7 **ADD** SECTION 16521- EXTERIOR LIGHTING, 4 pages, attached.

**IV. DRAWINGS**

**Item No.**

- 4.1 **REVISE** Sheet T1-1.3, Access Site Plan to show existing accessible parking spaces as shown on AD1-A1, attached.
- 4.2 **REVISE** Sheet T1-1.4, Access Floor Plan to show existing accessible parking spaces as shown on AD1-A1, attached.
- 4.3 **REVISE** Sheet AS-1.1, Site Demolition Plan to show existing accessible parking spaces as shown on AD1-A1, attached.

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- 4.4 **REVISE** Sheet AS-2.1, Site Plan to show existing accessible parking spaces as shown on AD1-A1, attached.
  - 4.5 **ADD** to Sheet AS-2.1, Keynote 111, “Relocate clean-out if in conflict with new wall in room 1055A.”
  - 4.6 **ADD** to sheet A2-1.1. Keynote 159 – “See keynote 236 on 2/A5-1.3.”
  - 4.7 **ADD** to Sheet A2-1.0, “ Existing storm drain clean-out in room 1055 is to be removed to wye-fitting and capped. New storm drain clean-out is to be provided and installed in road as shown on AD1-A2, attached.”
  - 4.8 **ADD** to Sheet A2-1.1, Keynote 167 –“Relocate clean-out if in conflict with new wall in room 1055A.”
  - 4.9 **ADD** to Sheet A2-1.1. “Existing storm drain clean-out in room 1055 is to be removed to wye-fitting and capped. New storm drain clean-out is to be provided and installed in road as shown on AD1-A2, attached.”
  - 4.10 **ADD** to sheet A2-1.1, “FLOOR PLAN ELEVATION REFERENCES, as shown on AD1-A3, attached.”
  - 4.11 **ADD** to Sheet A2-1.1, “12” long handrail extension to match existing to bottom of stair #2 hand-rail next to grid line 14 as shown on AD1-A5. Paint to match existing and paint existing handrail to termination on floor above.”
  - 4.12 **ADD** to Sheet A2-1.2. general note “6. All suspended light fixtures exposed to view to be provided with stainless steel aircraft cable sway braces at 45 degrees from horizontal with attachment to structure above similar to 16/AD-4.1 to prevent sway in any direction.”
  - 4.13 **DELETE** Sheet A2-1.2. Keynote 500, ~~see 15/AD-4.1~~
  - 4.14 **ADD** to sheet A2-1.2. 2<sup>nd</sup> Legend material item “see 17/AD-4.1.”
  - 4.15 **ADD** to Sheet A3-1.3. Keynote 216, “See 3/AD-2.2”.
  - 4.16 **ADD** to Sheet A5-1.3, sheet A5-1.3 with elevation 1 as shown on AD1-A4, attached.
  - 4.17 **ADD** to Sheet A5-1.3, sheet A5-1.3 with elevation 2 as shown on AD1-A5, attached.
  - 4.18 **REPLACE** Sheet A7-1.3, detail 2, with AD1-A6, attached.
  - 4.19 **ADD** Sheet A7-1.3, detail 12 as shown on AD1-A7, attached.
  - 4.20 **REPLACE** Sheet A8-1.2. RBT 1 with VCT 3. **REPLACE** RBT 2 with VCT 4.
  - 4.21 **ADD** Sheet A8-1.3, sign type “d” to Signage Schedule as shown on AD1-A8, attached.
  - 4.22 **ADD** to Sheet A8-1.3, sign type “d” to Signage Plan as shown on AD1-A9, attached.

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- 4.23 **ADD** to Sheet A8-1.3, sign types “a”, “b” and “c” as shown on AD1-A10, attached.
  - 4.24 **REVISE** Sheet A8-1.3. detail 3 sign-type “c” dimensions from 2” x 6” to 3” x 6”. **ADD** “Verify in field existing sign dimensions and match dimensions of new signs to existing”.
  - 4.25 **ADD** to Sheet A8-1.5. Door 55B, “Panic hardware”.
  - 4.26 **REPLACE** Sheet AD-2.1, detail 14, with revised detail as shown on AD1-A11, attached.
  - 4.27 **REPLACE** Sheet AD-2.1, detail 15, with revised detail as shown on AD1-A12, attached.
  - 4.28 **REPLACE** sheet AD-2.2, detail 1,1 with revised detail as shown on AD1-A13, attached.
  - 4.29 **REPLACE** Sheet AD-2.2 , detail 12, with revised detail as shown on AD1-A14, attached.
  - 4.30 **ADD** to Sheet AD-2.2, detail 3 as shown on AD1-A15, attached.
  - 4.31 **ADD** to Sheet AD-4.1. detail 17 as shown on AD1-A16, attached.
  - 4.32 **REVISE** Sheet P-3.0 to read: “Existing storm drain clean-out in room 1055 to be removed and replaced with a wye-fitting and capped. New storm drain clean-out is to be provided and installed in road as shown on AD1-A2 and AD1-P1, attached.”
  - 4.33 **MODIFY** Sheet P-3.0 to read: “For the Storm drain pipe in room 1055 running West-East install a wye-fitting on the East end in lieu of 45 degree fitting, as shown on AD1-P1, attached.”
  - 4.34 **MODIFY** Sheet P-3.0 to read: “New storm drain in pebble bed at base of stair No. 8 to have dome-type cover Zurn Model Z348, no-hub outlet and galvanized cast iron, as shown on AD1-P1, attached.”
  - 4.35 **MODIFY** Sheet P-3.0 to read: New storm drains in landscaped areas at edge of parking lot to have dome-type covers, Zurn Model Z348, no-hub outlet and galvanized cast iron in lieu of 6” grates, typical at two (2) locations, as shown on AD1-P1, attached.
  - 4.36 **ADD** to Sheet P-4.0, keynote 7, “ to FC-1 in center of room 1055A.”
  - 4.37 **DELETE** Sheet P-4.0, ~~existing floor clean-out FC-1 and keynote 7 in room 1055.~~
  - 4.38 **DELETE** Sheet E-1.0, keynote 1 from fixture types C and E identifications.
  - 4.39 **CHANGE** Sheet E-1.0, quantity of fixture type C from 5 to 2.
  - 4.40 **REPLACE** Sheet E-1.0, Fixture type C with surface-mount compact fluorescent fixture by Cooper Industries, or equal, per attached cut sheet.
  - 4.41 **REPLACE** Sheet E-3.0, Fixture type C with surface-mount compact fluorescent fixture by Cooper Industries, or equal, per attached cut sheet.
  - 4.42 **REVISE** Sheet E-3.0, fixture type F from F/29 to F/44.

## SECTION 09220 - PORTLAND CEMENT PLASTER

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Exterior portland cement plasterwork (stucco) on metal lath plaster bases to match existing texture and color.
- B. Related Sections include the following:
  - 1. Division 5 Section "Cold-Formed Metal Framing" for structural, load-bearing (transverse and axial) steel studs and joists that support lath and portland cement plaster.
  - 2. Division 6 Section "Sheathing" for sheathing, and water-resistant barriers included in portland cement plaster assemblies.
  - 3. Division 7 Section "Building Insulation" for thermal insulations and vapor retarders included in portland cement plaster assemblies.
  - 4. Division 7 Section "Joint Sealants" for acoustical sealants and sealants installed with exterior portland cement plaster (stucco).

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show locations and installation of control joints including plans, details of components, and attachments to other work, including the transition to existing portland cement plaster work/building component(s).
- C. Samples: For each type of factory-prepared finish coat indicated.

#### 1.4 QUALITY ASSURANCE

- A. Mockups: Before plastering, install mockups of at least 10 sq. ft. in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.
  - 1. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
  - 2. Obtain University's Representative approval before start of plaster work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes.

1.6 PROJECT CONDITIONS

- A. Comply with ASTM C 926 requirements.
- B. Exterior Plasterwork:
  - 1. Apply and cure plaster to prevent plaster drying out during curing period. Use procedures required by climatic conditions, including moist curing, providing coverings, and providing barriers to deflect sunlight and wind.
  - 2. Apply plaster when ambient temperature is greater than 40 deg F.
  - 3. Protect plaster coats from freezing for not less than 48 hours after set of plaster coat has occurred.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 METAL LATH

- A. Expanded-Metal Lath: ASTM C 847 with ASTM A 653/A 653M, G60, hot-dip galvanized zinc coating.
  - 1. Manufacturers:
    - a. Alabama Metal Industries Corporation (AMICO).
    - b. California Expanded Metal Products Company (CEMCO).
    - c. Western Metal Lath & Steel Framing Systems.
    - d. Or equal.
  - 2. Diamond-Mesh Lath: Flat or self-furring.
    - a. Weight: 3.4 lb/sq. yd.
  - 3. Flat Rib Lath: Rib depth of not more than 1/8 inch.

- a. Weight: 3.4 lb/sq. yd.

- B. Paper Backing: FS UU-B-790, Type I Grade D, Style 2 vapor-permeable paper.

- 1. Provide paper-backed lath unless otherwise indicated.

## 2.3 ACCESSORIES

- A. General: Comply with ASTM C 1063 and coordinate depth of trim and accessories with thicknesses and number of plaster coats required.

- B. Zinc and Zinc-Coated (Galvanized) Accessories:

- 1. Manufacturers:

- a. Alabama Metal Industries Corporation (AMICO).
    - b. California Expanded Metal Products Company (CEMCO).
    - c. Western Metal Lath & Steel Framing Systems.
    - d. Or equal.

- 2. Foundation Weep Screed: Fabricated from hot-dip galvanized steel sheet, ASTM A 653/A 653M, G60 zinc coating.

- 3. Cornerite: Fabricated from metal lath with ASTM A 653/A 653M, G60, hot-dip galvanized zinc coating.

- 4. External-Corner Reinforcement: Fabricated from metal lath with ASTM A 653/A 653M, G60, hot-dip galvanized zinc coating.

- 5. Cornerbeads: Fabricated from zinc-coated (galvanized) steel.

- a. Small nose cornerbead with expanded flanges; use unless otherwise indicated.
    - b. Small nose cornerbead with expanded flanges reinforced by perforated stiffening rib; use on columns.

- 6. Casing Beads: Fabricated from zinc-coated (galvanized) steel; square-edged style; with expanded flanges.

- 7. Control Joints: Fabricated from zinc-coated (galvanized) steel; one-piece-type, folded pair of unperforated screeds in M-shaped configuration; with perforated flanges and removable protective tape on plaster face of control joint.

## 2.4 MISCELLANEOUS MATERIALS

- A. Water for Mixing: Potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.

- B. Fiber for Base Coat: Alkaline-resistant glass or polypropylene fibers, 1/2 inch long, free of contaminants, manufactured for use in portland cement plaster.

- C. Steel Drill Screws: For metal-to-metal fastening, ASTM C 1002 or ASTM C 954, as required by thickness of metal being fastened; with pan head that is suitable for application; in lengths



required to achieve penetration through joined materials of not fewer than three exposed threads.

- D. Fasteners for Attaching Metal Lath to Substrates: Complying with ASTM C 1063.

## 2.5 PLASTER MATERIALS

- A. Portland Cement: ASTM C 150, Type I II.

1. Color for Finish Coats: To match existing.

- B. Plastic Cement: ASTM C 1328.

- C. Lime: ASTM C 206, Type S; or ASTM C 207, Type S.

- D. Sand Aggregate: ASTM C 897.

1. Color for Job-Mixed Finish Coats: In color matching existing.

- E. Acrylic-Based Finish Coatings: Factory-mixed acrylic-emulsion coating systems, formulated with colorfast mineral pigments and fine aggregates; for use over portland cement plaster base coats. Include manufacturer's recommended primers and sealing topcoats for acrylic-based finishes.

1. Products:
- Parex, Inc.
  - Senergy, Inc.
  - Stuc-O-Flex International, Inc.
  - Or equal.

2. Color: To match existing.

## 2.6 PLASTER MIXES

- A. General: Comply with ASTM C 926 for applications indicated.

1. Fiber Content: Add fiber to base-coat mixes after ingredients have mixed at least two minutes. Comply with fiber manufacturer's written instructions for fiber quantities in mixes, but do not exceed 1 lb of fiber/cu. ft. of cementitious materials. Reduce aggregate quantities accordingly to maintain workability.

- B. Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork as follows:

1. Portland Cement Mixes:

- a. Scratch Coat: For cementitious material, mix 1 part portland cement and 0 to 3/4 parts lime. Use 2-1/2 to 4 parts aggregate per part of cementitious material (sum of separate volumes of each component material).
  - b. Brown Coat: For cementitious material, mix 1 part portland cement and 0 to 3/4 parts lime. Use 3 to 5 parts aggregate per part of cementitious material (sum of separate volumes of each component material).
2. Plastic Cement Mixes:
  - a. Scratch Coat: 1 part plastic cement and 2-1/2 to 4 parts aggregate.
  - b. Brown Coat: 1 part plastic cement and 3 to 5 parts aggregate.
3. Portland and Plastic Cement Mixes:
  - a. Scratch Coat: For cementitious material, mix 1 part plastic cement and 1 part portland cement. Use 2-1/2 to 4 parts aggregate per part of cementitious material (sum of separate volumes of each component material).
  - b. Brown Coat: For cementitious material, mix 1 part plastic cement and 1 part portland cement. Use 3 to 5 parts aggregate per part of cementitious material (sum of separate volumes of each component material).

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance.
  1. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Protect adjacent work from soiling, spattering, moisture deterioration, and other harmful effects caused by plastering.
- B. Coordination with Sprayed Fire-Resistive Materials:
  1. Before sprayed fire-resistive materials are applied, attach offset anchor plates or ceiling runners (tracks) to surfaces indicated to receive sprayed fire-resistive materials. Where offset anchor plates are required, provide continuous plates fastened to building structure not more than 24 inches o.c.
  2. After sprayed fire-resistive materials are applied, remove them only to extent necessary for installation of plaster assemblies and without reducing the fire-resistive material thickness to less than that required to obtain fire-resistance rating indicated. Protect remaining fire-resistive materials from damage.

### 3.3 INSTALLING METAL LATH

- A. Expanded-Metal Lath: Install according to ASTM C 1063.
  - 1. Partition Framing and Vertical framing: Install flat diamond-mesh lath.

### 3.4 INSTALLING ACCESSORIES

- A. Install according to ASTM C 1063 and at locations indicated on Drawings.
- B. Reinforcement for External Corners:
  - 1. Install lath-type external-corner reinforcement at exterior locations.
  - 2. Install cornerbead at interior locations.
- C. Control Joints: Install control joints at locations indicated on Drawings where shown and in specific locations approved by Architect for visual effect as follows:
  - 1. As required to delineate plasterwork into areas (panels) of the following maximum sizes:
    - a. Vertical Surfaces: 144 sq. ft.
    - b. Horizontal and other Nonvertical Surfaces: 100 sq. ft.
  - 2. At distances between control joints of not greater than 18 feet o.c.
  - 3. As required to delineate plasterwork into areas (panels) with length-to-width ratios of not greater than 2-1/2:1.
  - 4. Where control joints occur in surface of construction directly behind plaster.
  - 5. Where plasterwork areas change dimensions, to delineate rectangular-shaped areas (panels) and to relieve the stress that occurs at the corner formed by the dimension change.

### 3.5 PLASTER APPLICATION

- A. General: Comply with ASTM C 926.
  - 1. Do not deviate more than plus or minus 1/4 inch in 10 feet from a true plane in finished plaster surfaces, as measured by a 10-foot straightedge placed on surface.
  - 2. Finish plaster flush with metal frames and other built-in metal items or accessories that act as a plaster ground, unless otherwise indicated. Where casing bead does not terminate plaster at metal frame, cut base coat free from metal frame before plaster sets and groove finish coat at junctures with metal.
  - 3. Provide plaster surfaces that are ready to receive field-applied finishes indicated.
- B. Bonding Compound: Apply on unit masonry and concrete plaster bases.
- C. Plaster Finish Coats: Apply to provide sand float finish to match Architect's sample.

- D. Acrylic-Based Finish Coatings: Apply coating system, including primers, finish coats, and sealing topcoats, according to manufacturer's written instructions.

### 3.6 CUTTING AND PATCHING

- A. Cut, patch, replace, and repair plaster as necessary to accommodate other work and to restore cracks, dents, and imperfections. Repair or replace work to eliminate blisters, buckles, crazing and check cracking, dry outs, efflorescence, sweat outs, and similar defects and where bond to substrate has failed.

### 3.7 CLEANING AND PROTECTION

- A. Remove temporary protection and enclosure of other work. Promptly remove plaster from doorframes, windows, and other surfaces not indicated to be plastered. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during plastering.

END OF SECTION 09220

## SECTION 16521- EXTERIOR LIGHTING

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Exterior luminaires with lamps and ballasts.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each luminaire, and support component, arranged in order of lighting unit designation. Include data on features, accessories, and finishes.
- B. Shop Drawings: Anchor-bolt templates keyed to specific poles and certified by manufacturer.

#### 1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with IEEE C2, "National Electrical Safety Code."
- C. Comply with NFPA 70.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide product indicated on Drawings.

#### 2.2 GENERAL REQUIREMENTS FOR LUMINAIRES

- A. Luminaires shall comply with UL 1598 and be listed and labeled for installation in wet locations by an NRTL acceptable to authorities having jurisdiction.

1. LER Tests Incandescent Fixtures: Where LER is specified, test according to NEMA LE 5A.
  2. LER Tests HID Fixtures: Where LER is specified, test according to NEMA LE 5B.
- B. Lateral Light Distribution Patterns: Comply with IESNA RP-8 for parameters of lateral light distribution patterns indicated for luminaires.
- C. Metal Parts: Free of burrs and sharp corners and edges.
- D. Sheet Metal Components: Corrosion-resistant aluminum unless otherwise indicated. Form and support to prevent warping and sagging.
- E. Housings: Rigidly formed, weather- and light-tight enclosures that will not warp, sag, or deform in use. Provide filter/breather for enclosed luminaires.
- F. Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during relamping and when secured in operating position. Doors shall be removable for cleaning or replacing lenses. Designed to disconnect ballast when door opens.
- G. Exposed Hardware Material: Stainless steel.
- H. Plastic Parts: High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.
- I. Light Shields: Metal baffles, factory installed and field adjustable, arranged to block light distribution to indicated portion of normally illuminated area or field.
- J. Reflecting surfaces shall have minimum reflectance as follows unless otherwise indicated:
1. White Surfaces: 85 percent.
  2. Specular Surfaces: 83 percent.
  3. Diffusing Specular Surfaces: 75 percent.
- K. Lenses and Refractors Gaskets: Use heat- and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors.
- L. Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and -tested luminaire before shipping. Where indicated, match finish process and color of pole or support materials.
- M. Factory-Applied Finish for Steel Luminaires: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
-

1. Surface Preparation: Clean surfaces to comply with SSPC-SP 1, "Solvent Cleaning," to remove dirt, oil, grease, and other contaminants that could impair paint bond. Grind welds and polish surfaces to a smooth, even finish. Remove mill scale and rust, if present, from uncoated steel, complying with SSPC-SP 5/NACE No. 1, "White Metal Blast Cleaning," or SSPC-SP 8, "Pickling."
  2. Exterior Surfaces: Manufacturer's standard finish consisting of one or more coats of primer and two finish coats of high-gloss, high-build polyurethane enamel.
    - a. Color: As selected from manufacturer's standard catalog of colors.
- N. Factory-Applied Finish for Aluminum Luminaires: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
1. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
  2. Natural Satin Finish: Provide fine, directional, medium satin polish (AA-M32); buff complying with AA-M20; and seal aluminum surfaces with clear, hard-coat wax.
  3. Class I, Clear Anodic Finish: AA-M32C22A41 (Mechanical Finish: medium satin; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.
  4. Class I, Color Anodic Finish: AA-M32C22A42/A44 (Mechanical Finish: medium satin; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, integrally colored or electrolytically deposited color coating 0.018 mm or thicker) complying with AAMA 611.

Factory-Applied Labels: Comply with UL 1598. Include recommended lamps and ballasts. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.

1. Label shall include the following lamp and ballast characteristics:
  - a. "USES ONLY" and include specific lamp type.
  - b. Lamp tube configuration (twin, quad, triple), base type, and nominal wattage for compact fluorescent luminaires.
  - c. Start type (preheat, rapid start, instant start) compact fluorescent luminaires.
  - d. CCT and CRI for all luminaires.

## 2.3 FLUORESCENT BALLASTS AND LAMPS

### A. Ballasts for Low-Temperature Environments:

1. Temperatures 0 Deg F (Minus 17 Deg C) and Higher: Electronic type rated for 0 deg F (minus 17 deg C) starting and operating temperature with indicated lamp types.

2. Temperatures Minus 20 Deg F (Minus 29 Deg C) and Higher: Electromagnetic type designed for use with indicated lamp types.
- B. Ballast Characteristics:
1. Power Factor: 90 percent, minimum.
  2. Sound Rating: Class A.
  3. Total Harmonic Distortion Rating: Less than 10 percent.
  4. Electromagnetic Ballasts: Comply with ANSI C82.1, energy-saving, high power factor, Class P, automatic-reset thermal protection.
  5. Case Temperature for Compact Lamp Ballasts: 65 deg C, maximum.
  6. Transient-Voltage Protection: Comply with IEEE C62.41.1 and IEEE C62.41.2, Category A or better.
- C. Low-Temperature Lamp Capability: Rated for reliable starting and operation with ballast provided at temperatures 0 deg F (minus 18 deg C) and higher.

### PART 3 - EXECUTION

#### 3.1 LUMINAIRE INSTALLATION

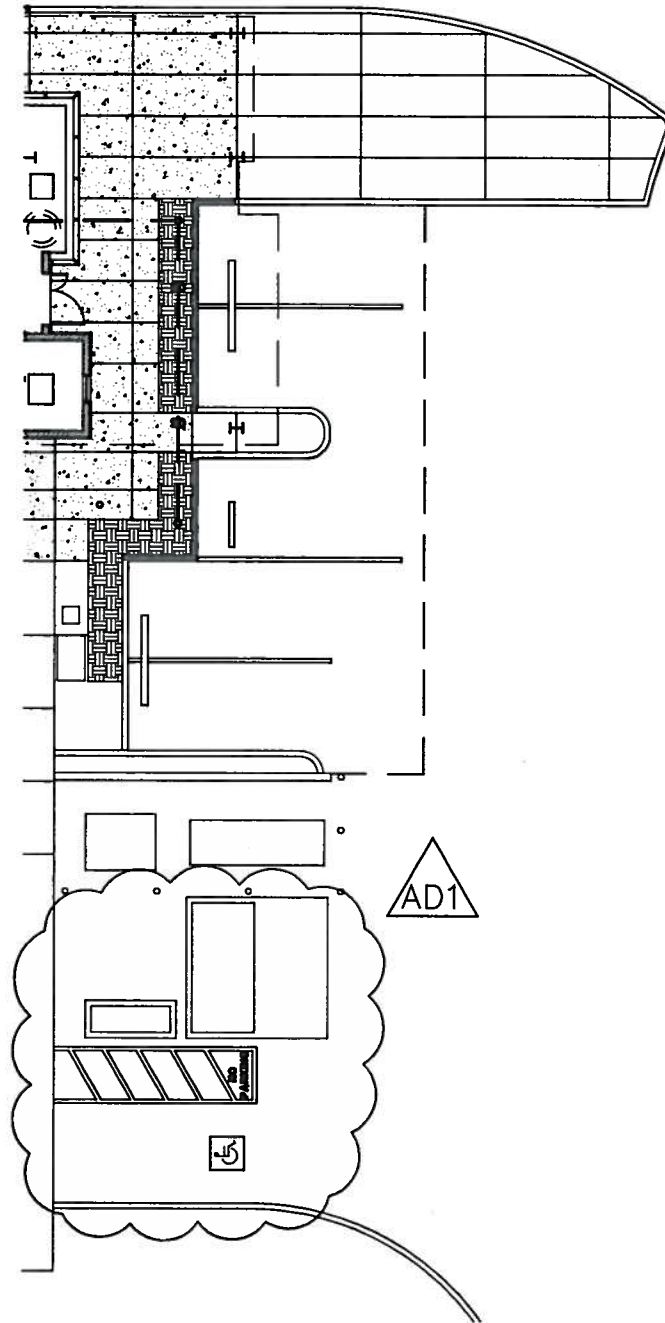
- A. Install lamps in each luminaire.
- B. Fasten luminaire to indicated structural supports.
  1. Use fastening methods and materials selected to resist seismic forces defined for the application and approved by manufacturer.
- C. Adjust luminaires that require field adjustment or aiming.

#### 3.2 CORROSION PREVENTION

- A. Aluminum: Do not use in contact with earth or concrete. When in direct contact with a dissimilar metal, protect aluminum by insulating fittings or treatment.
- B. Steel Conduits: Comply with Section 16130 "Electrical Boxes." In concrete foundations, wrap conduit with 0.010-inch- (0.254-mm-) thick, pipe-wrapping plastic tape applied with a 50 percent overlap.

END OF SECTION 16521





ADDED EXISTING PARKING SPACE AND  
ELECTRICAL GEAR, CLARIFICATION ONLY.



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Terada Architects  
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San Diego, California  
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F619.233.0016  
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TITLE: **EXISTING ACCESSIBLE PARKING SPACE**

UCSB PROJECT NO.  
**FM150347S**

REFERENCE SHEET NO: T1-1.3, T1-1.4, AS-1.1, AS-2.1

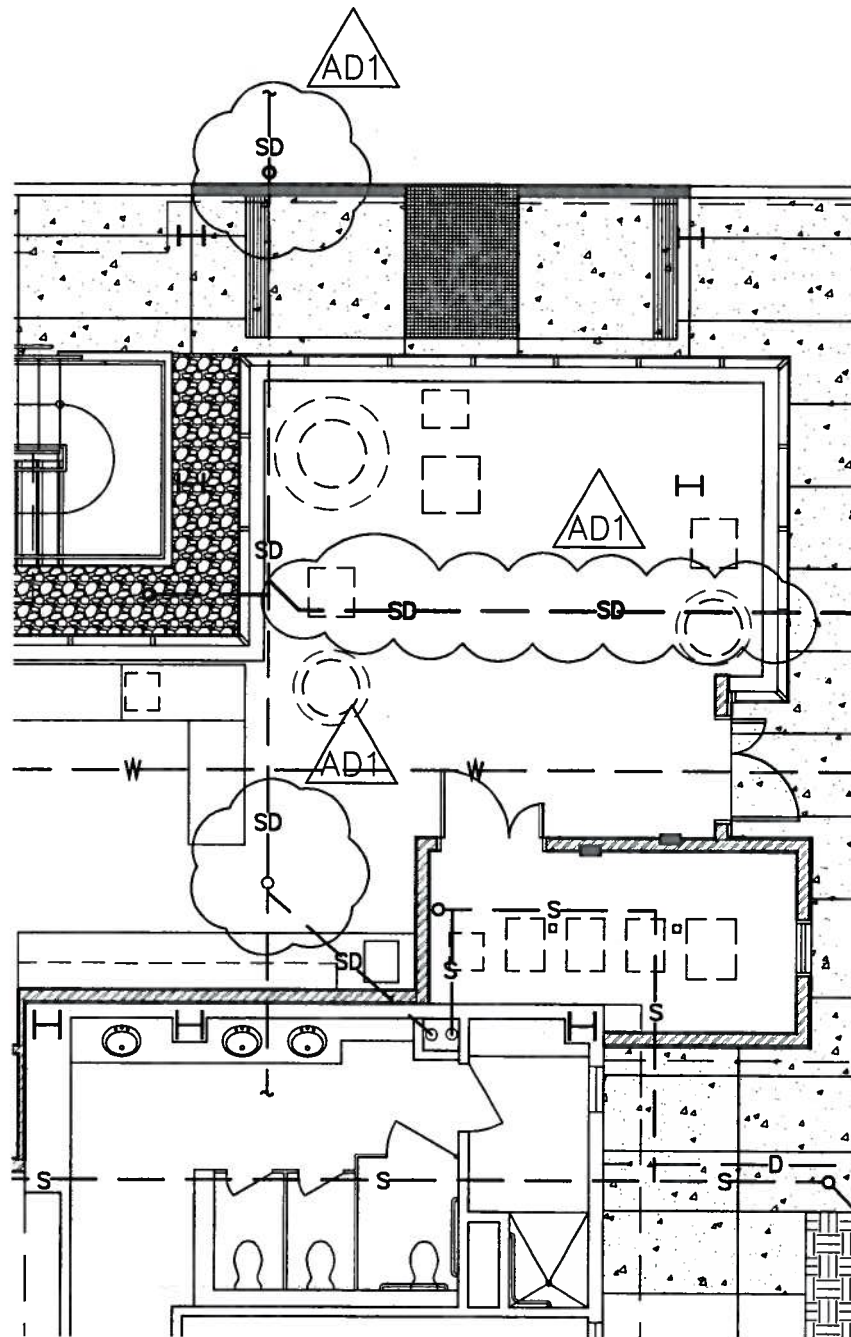
PROJECT NO. **13629**

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

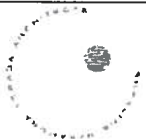
DATE: 04/08/2015

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SHEET NO.  
**AD1 - A1**



DELETED EXISTING STORM DRAIN CLEAN-OUT, ADDED  
NEW STORM DRAIN CLEAN-OUT, SHOWING STORM  
DRAIN PIPING AS NEW



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TITLE: STORM DRAIN CLEAN-OUT AND PIPING

REFERENCE SHEET NO: A2-1.0, A2-1.1

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

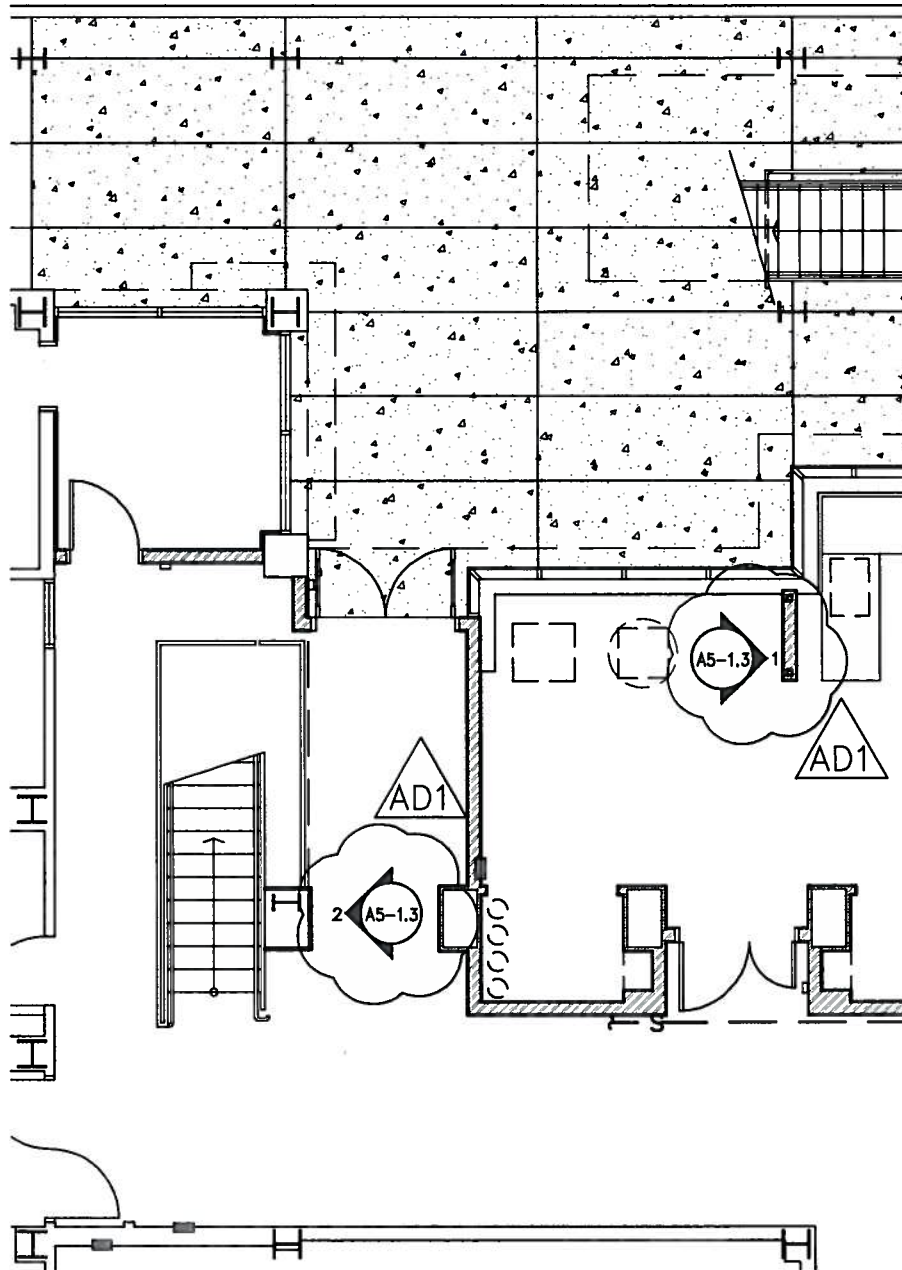
UCSB MATERIALS RESEARCH LABORATORY INFILL  
BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA

UCSB PROJECT NO.  
FM150347S

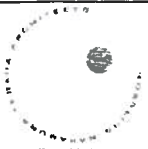

PROJECT NO. 13629

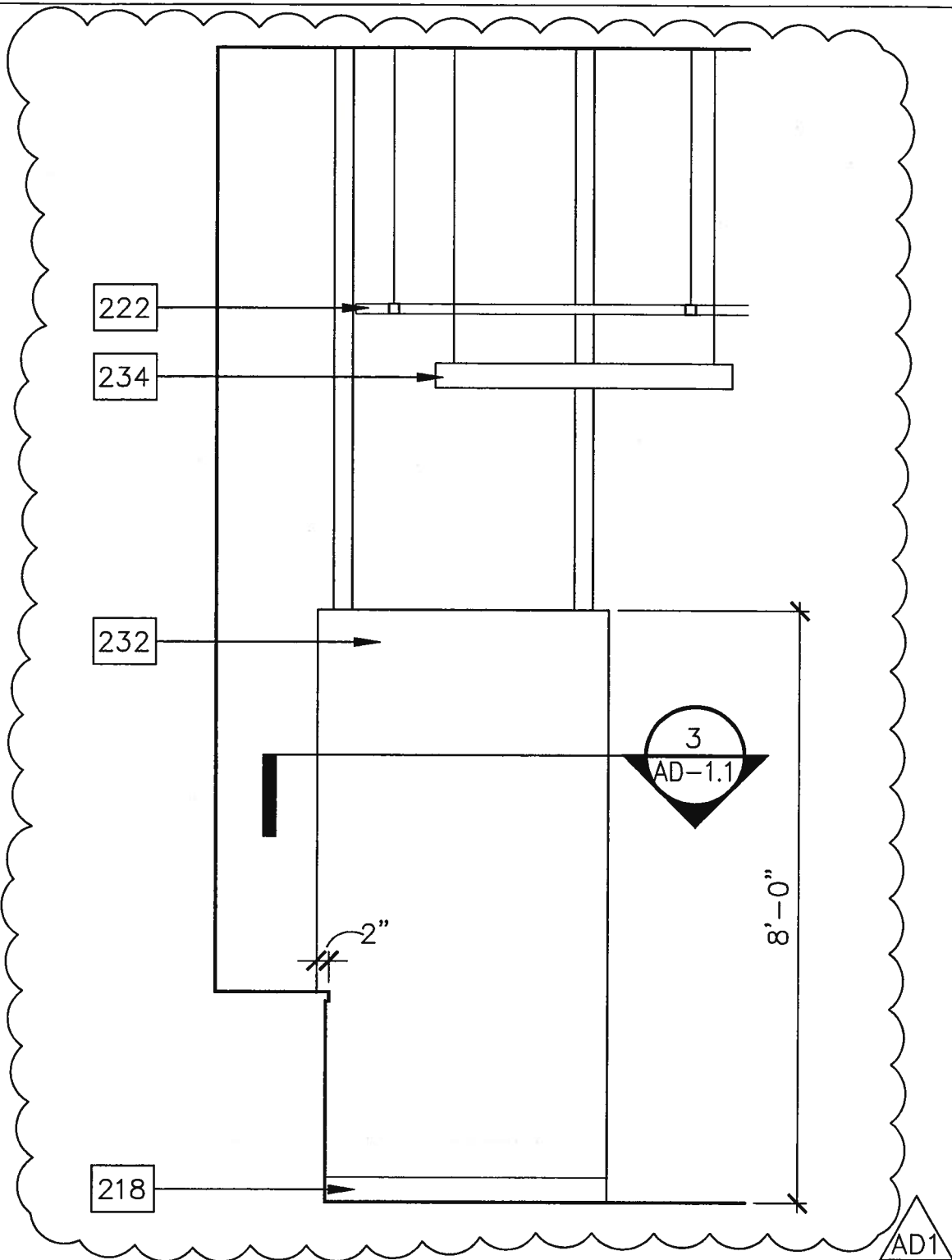
DATE: 04/08/2015

SHEET NO.  
AD1 - A2



ADDED INTERIOR ELEVATION REFERENCES

 <p>Roesling Nakamura Terada Architects 363 Fifth Avenue, Suite 202 San Diego, California P619.233.1023 F619.233.0016 www.RNTArchitects.com</p>		<p>TITLE: FLOOR PLAN ELEVATION REFERENCES</p> <p>REFERENCE SHEET NO: A2-1.1</p> <p>SCALE: 1/8" = 1'-0"</p> <p>UCSB MATERIALS RESEARCH LABORATORY INFILL BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA</p>	<p>UCSB PROJECT NO. FM150347S</p> <p>PROJECT NO. 13629</p> <p>DATE: 04/08/2015</p> <p>SHEET NO. AD1 - A3</p>
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ADDED ELEVATION OF FREE-STANDING WALL  
SEE SHEET A5-1.1 FOR KEYNOTES



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TITLE: FREE-STANDING WALL ELEVATION

UCSB PROJECT NO.  
FM150347S

REFERENCE SHEET NO: A2-1.1, A5-1.3

PROJECT NO. 13629

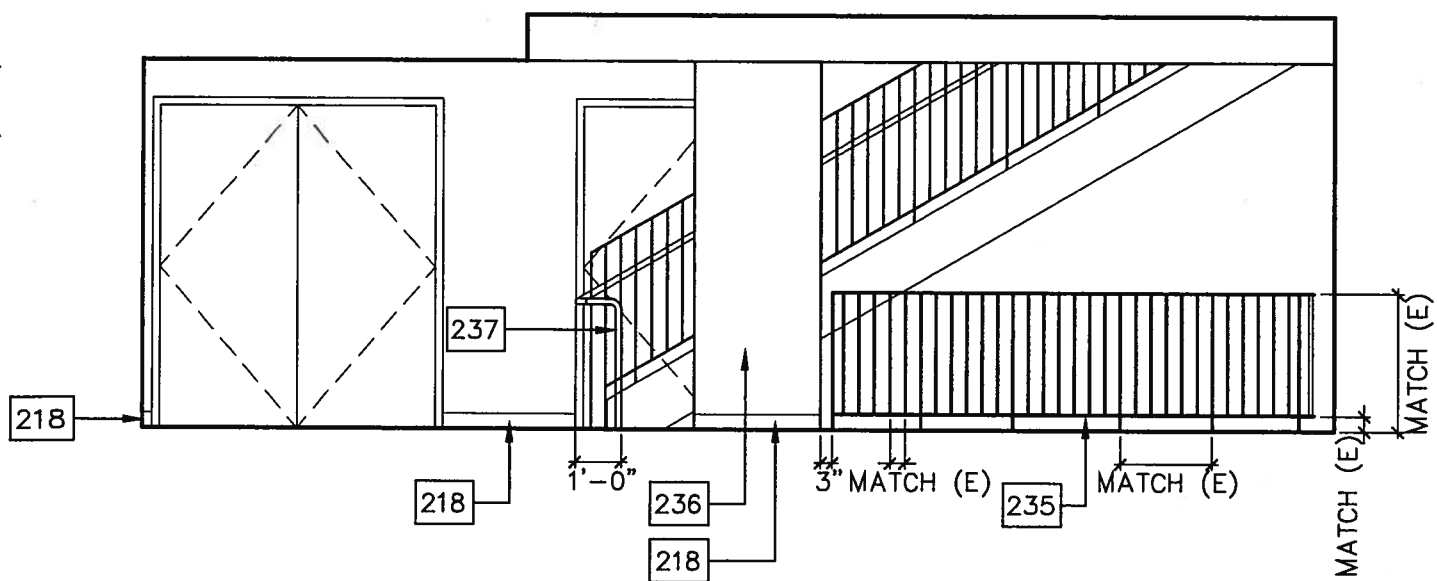
SCALE: 1/2" = 1'-0"

DATE: 04/08/2015

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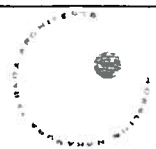
SHEET NO.  
AD1 - A4

AD1



- 235 NEW GUARDRAIL PROHIBITING ACCESS UNDER STAIR
- 236 GYPSUM BOARD ON FURRING CHANNEL AT BASE OF (E) COLUMN WHERE PEDESTAL WAS REMOVED
- 237 HANDRAIL EXTENSION, WELD TO (E) HANDRAIL AND SET IN EPOXY IN CONCRETE SLAB CORE PER AD1-A7

ADDED WEST ELEVATION OF VESTIBULE, ADDED KEYNOTES 235, 236 AND 237  
SEE SHEET A5-1.1 FOR KEYNOTES NOT SHOWN HERE

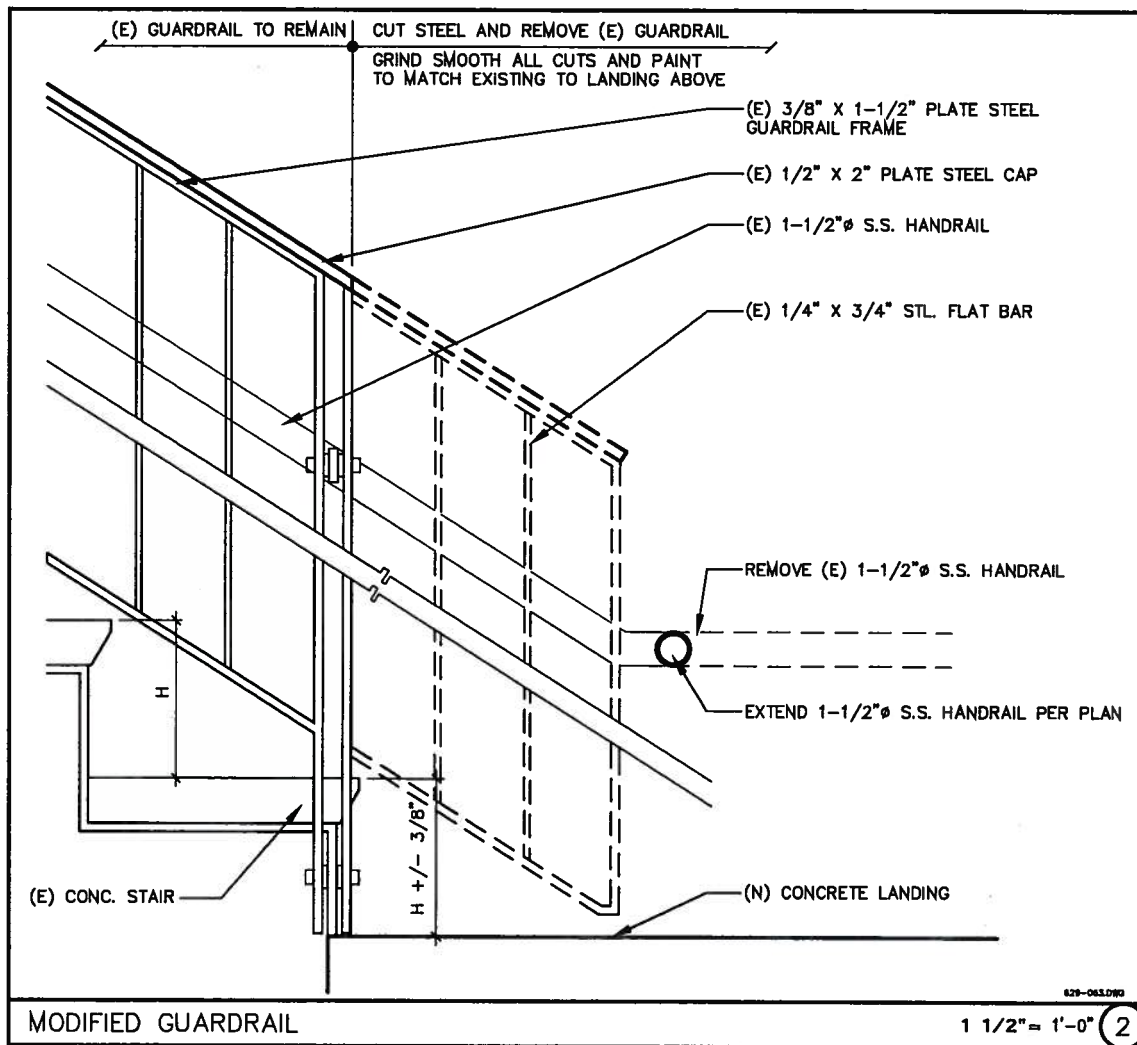


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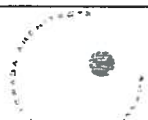


TITLE: VESTIBULE ELEVATION - WEST	UCSB PROJECT NO. FM150347S
REFERENCE SHEET NO: A2-1.1, A5-1.3	PROJECT NO. 13629
SCALE: 1/4" = 1'-0" (1/2" = 1'-0" ON SHEET A5-1.3)	DATE: 04/08/2015
UCSB MATERIALS RESEARCH LABORATORY INFILL BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA	SHEET NO. AD1 - A5

AD1



REPLACED DETAIL 2/A7-1.3



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**UCSB**

TITLE: **MODIFIED GUARDRAIL**

UCSB PROJECT NO.  
**FM150347S**

REFERENCE SHEET NO: A7-1.3

PROJECT NO. **13629**

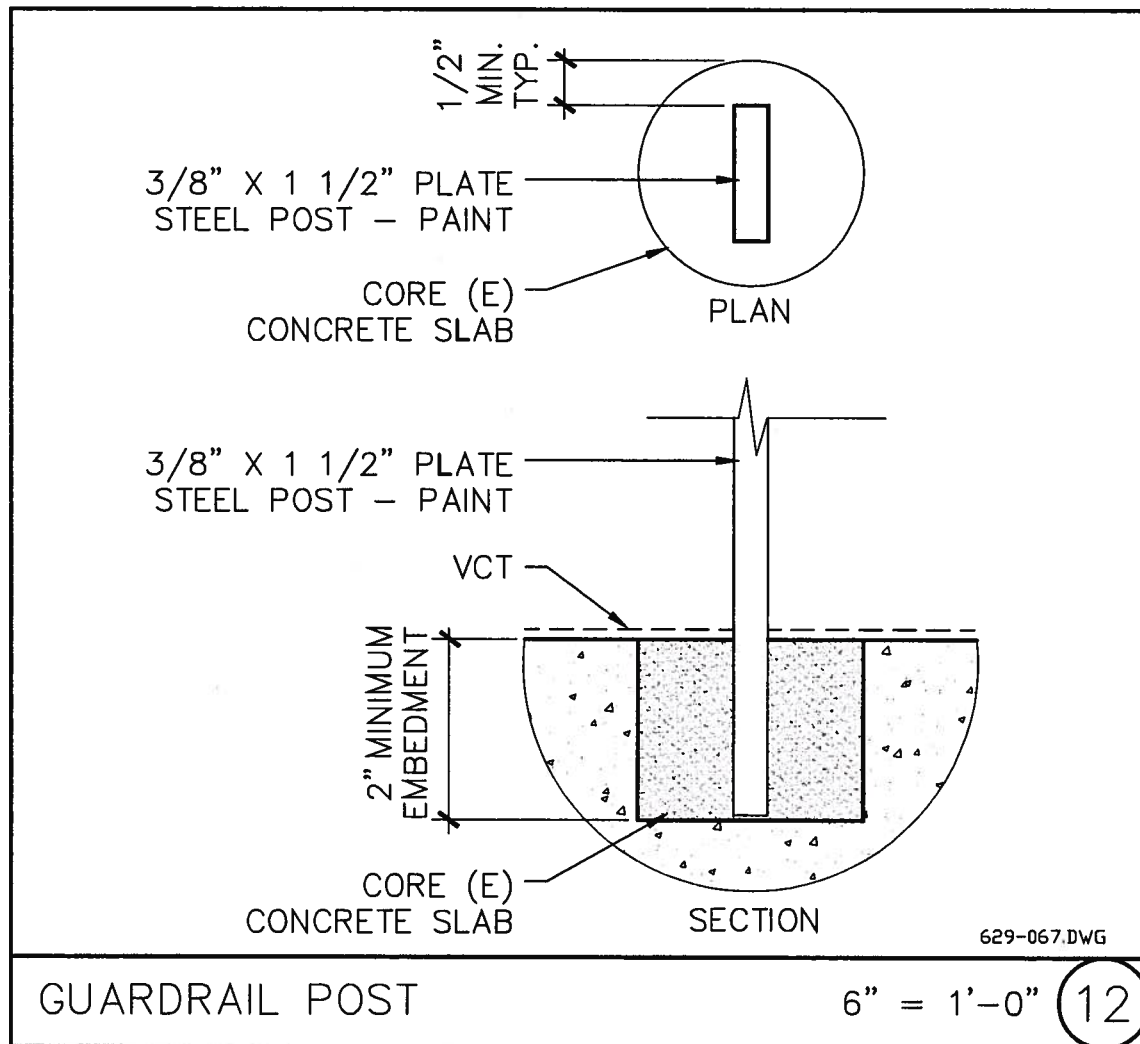
SCALE: 1 1/2" = 1'-0" (3" = 1'-0" ON SHEET A7-1.3)

DATE: 04/08/2015



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SHEET NO.  
**AD1 - A6**

AD1












ADDED DETAIL 12/A7-1.3

 <p>Roesling Nakamura Terada Architects 363 Fifth Avenue, Suite 202 San Diego, California P619.233.1023 F619.233.0016 www.RNTArchitects.com</p>		TITLE: GUARDRAIL POST	UCSB PROJECT NO. FM150347S
		REFERENCE SHEET NO: A7-1.3	PROJECT NO. 13629
		SCALE: 6" = 1'-0"	DATE: 04/08/2015
		UCSB MATERIALS RESEARCH LABORATORY INFILL BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA	SHEET NO. AD1 - A7



## SIGNAGE SCHEDULE

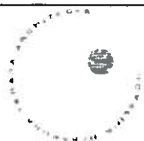
FOR SIGN LOCATIONS, SEE THIS SHEET  
SIGNS TO MATCH EXISTING

SIGN LOCATION ROOM NO.	TYPE	QTY.	COPY	SIZE
1000B		1	1053	B
1000B		1	 EXIT	C
1000C		1	1055 LOW TEMPERATURE CHARACTERIZATION FACILITY	A
EAST ELEV.		1	1055 LOW TEMPERATURE CHARACTERIZATION FACILITY	A
1055		1	1055A	B
1055		1	 EXIT	C
EXTERIOR – MAIN DOOR		1	ACCESSIBLE ENTRANCE  WITH INTERNATIONAL SYMBOL OF ACCESSIBILITY	A

NOTE: SIGN TYPE "d" TO BE BRUSHED ALUMINUM WITH BLACK CHARACTERS

REVISED SIGNAGE SCHEDULE

AD1



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**UCSB**

TITLE: **SIGNAGE SCHEDULE**

UCSB PROJECT NO.  
**FM150347S**

REFERENCE SHEET NO: A7-1.3

PROJECT NO. **13629**

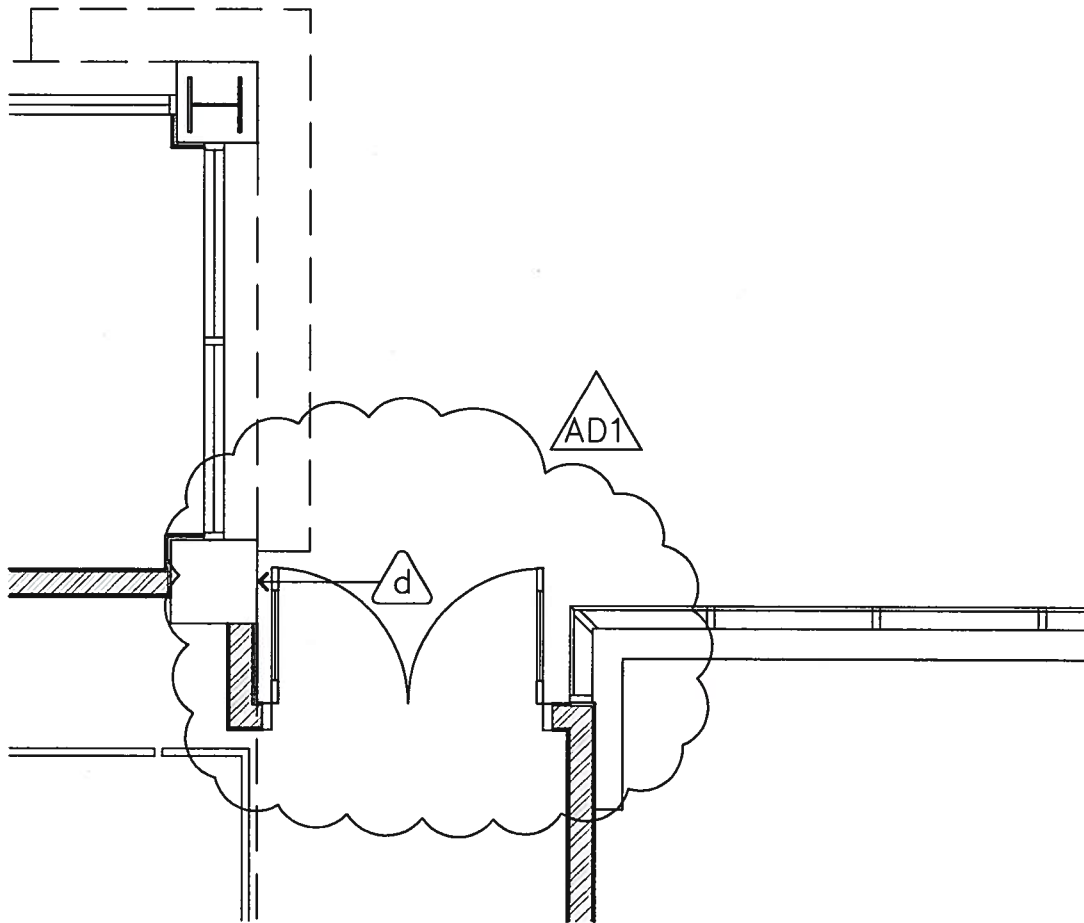
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DATE: 04/08/2015

**UCSB MATERIALS RESEARCH LABORATORY INFILL**  
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SHEET NO.  
**AD1 - A8**





ADDED SIGN TYPE "d" TO SIGNAGE PLAN



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TITLE: SIGN TYPE "d" LOCATION

REFERENCE SHEET NO: A8-1.3

SCALE: 1/4" = 1'-0"

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BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA

UCSB PROJECT NO.  
FM150347S

PROJECT NO. 13629

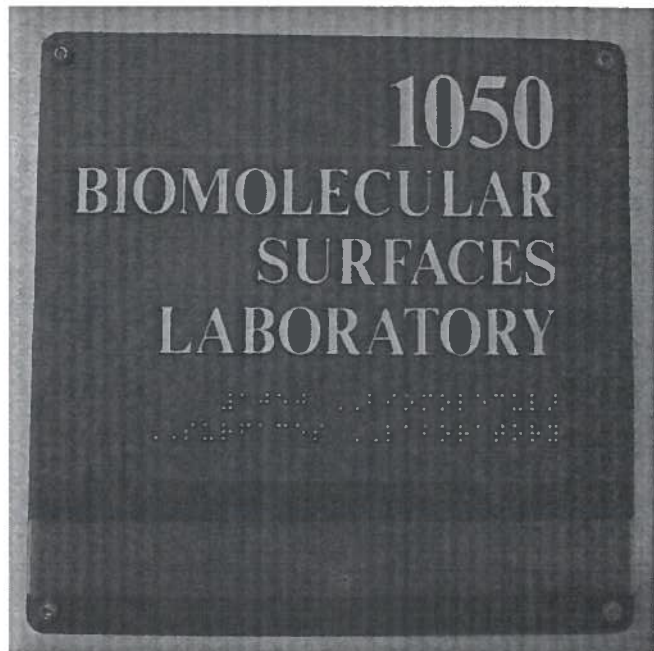
DATE: 04/08/2015

SHEET NO.  
AD1 - A9

AD1



SIGN TYPE "a"

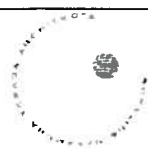



SIGN TYPE "b"

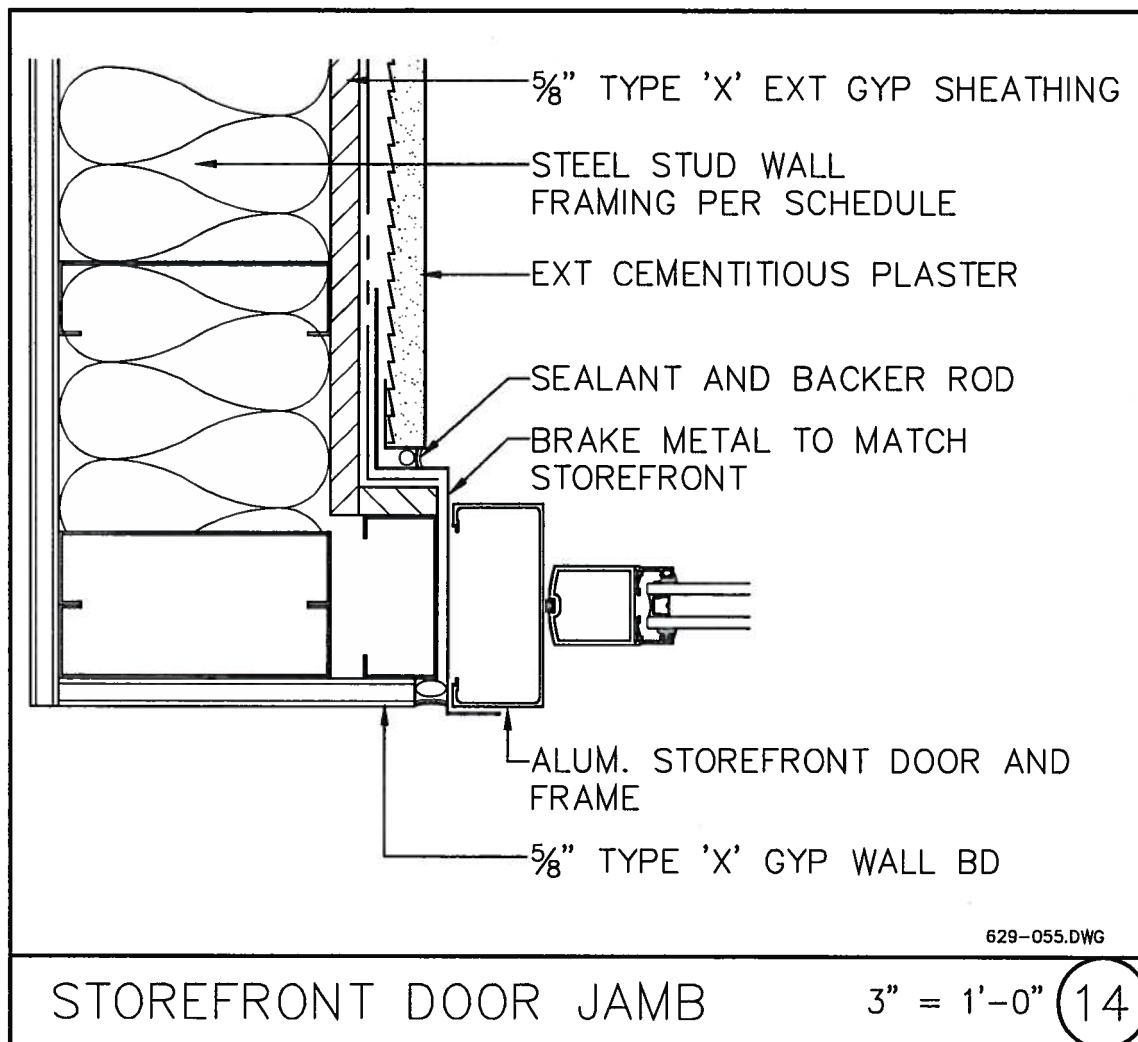


SIGN TYPE "c"



ADDED SIGN TYPES "a", "b" AND "c"

 <p>Roesling Nakamura Terada Architects 363 Fifth Avenue, Suite 202 San Diego, California P619.233.1023 F619.233.0016 www.RNTarchitects.com</p>		<p>TITLE: SIGNS TYPES "a", "b" AND "c"</p>	<p>UCSB PROJECT NO. FM150347S</p>
		<p>REFERENCE SHEET NO: A8-1.3</p>	<p>PROJECT NO. 13629</p>
		<p>SCALE: NONE</p>	<p>DATE: 04/08/2015</p>
		<p>UCSB MATERIALS RESEARCH LABORATORY INFILL BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA</p>	<p>SHEET NO. AD1 - A10</p>

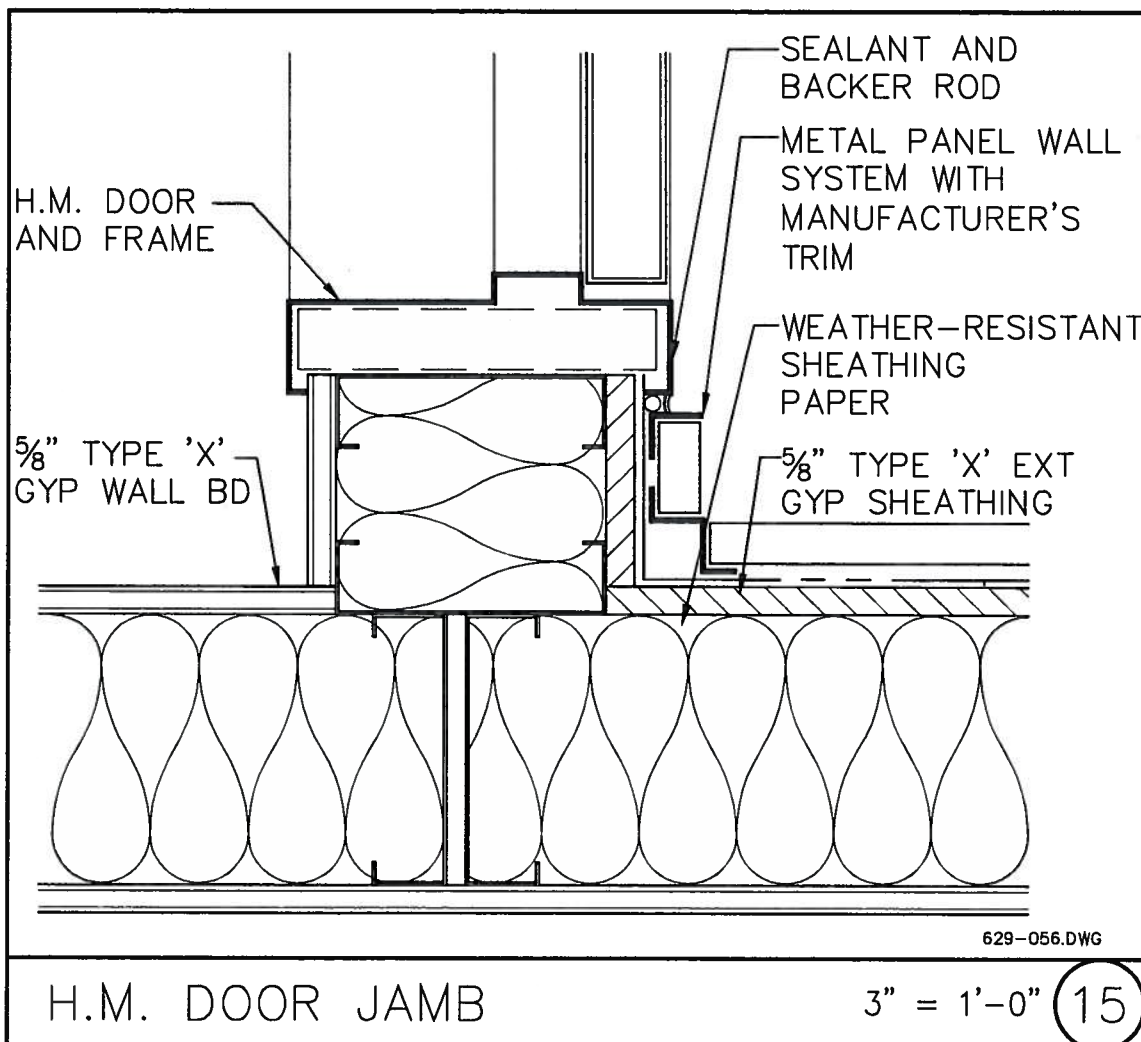
AD1





REPLACED DETAIL 14/AD-2.1

 <p>Roesling Nakamura Terada Architects 363 Fifth Avenue, Suite 202 San Diego, California P619.233.1023 F619.233.0016 www.RNTarchitects.com</p>		<p>TITLE: <b>STOREFRONT DOOR JAMB</b></p> <p>REFERENCE SHEET NO: AD-2.1</p> <p>SCALE: 3" = 1'-0"</p> <p><b>UCSB MATERIALS RESEARCH LABORATORY INFILL</b> BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA</p>	<p>UCSB PROJECT NO. <b>FM150347S</b></p> <p>PROJECT NO. <b>13629</b></p> <p>DATE: 04/08/2015</p> <p>SHEET NO. <b>AD1 - A11</b></p>
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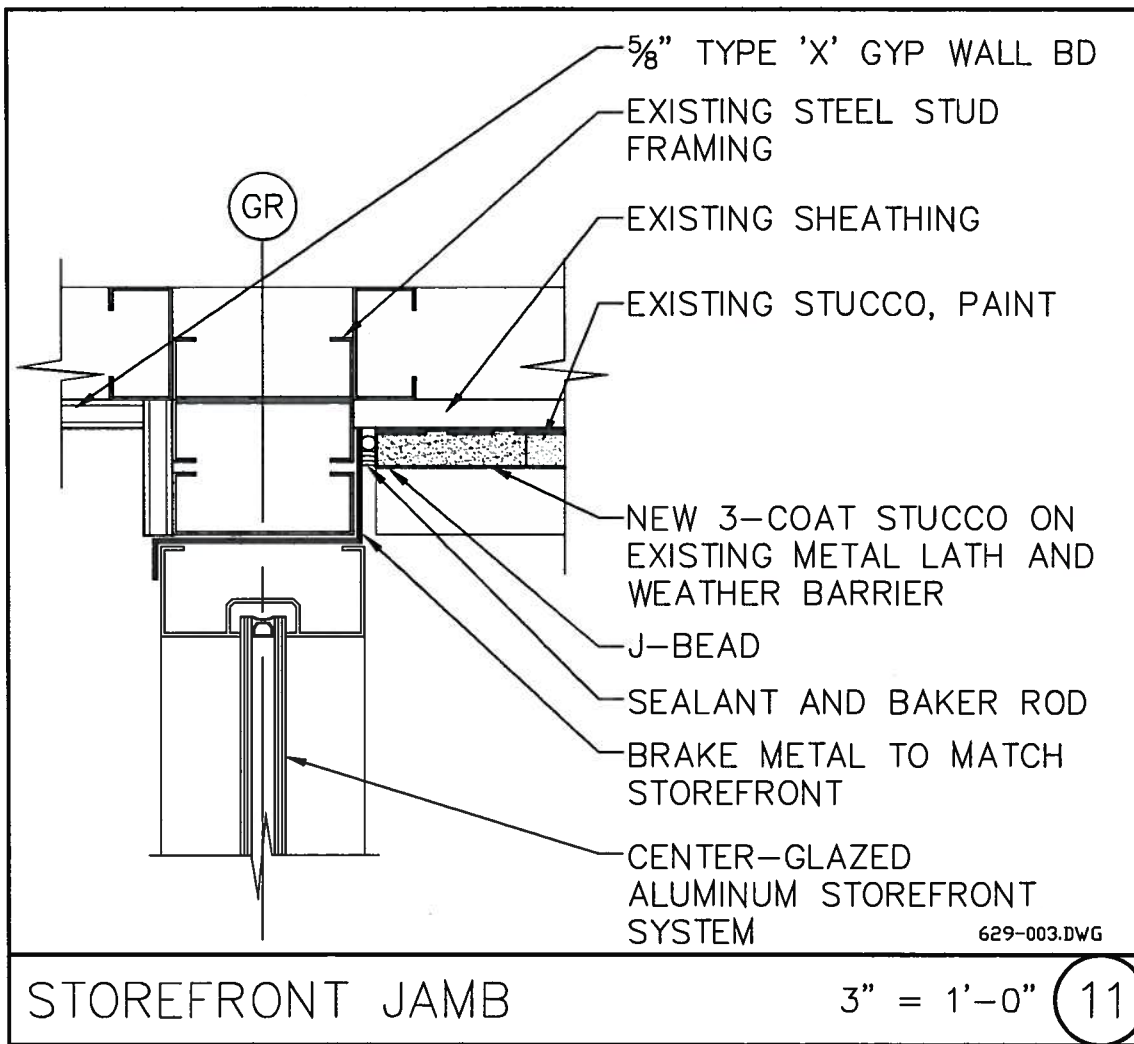
AD1



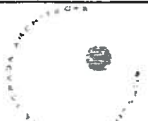

REPLACED DETAIL 15/AD-2.1

 <p>Roesling Nakamura Terada Architects 363 Fifth Avenue, Suite 202 San Diego, California P619.233.1023 F619.233.0018 www.RNTarchitects.com</p>		TITLE:	HOLLOW METAL DOOR JAMB	UCSB PROJECT NO. FM150347S
		REFERENCE SHEET NO:	AD-2.1	PROJECT NO. 13629
		SCALE:	3" = 1'-0"	DATE: 04/08/2015
		UCSB MATERIALS RESEARCH LABORATORY INFILL BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA		SHEET NO. AD1 - A12

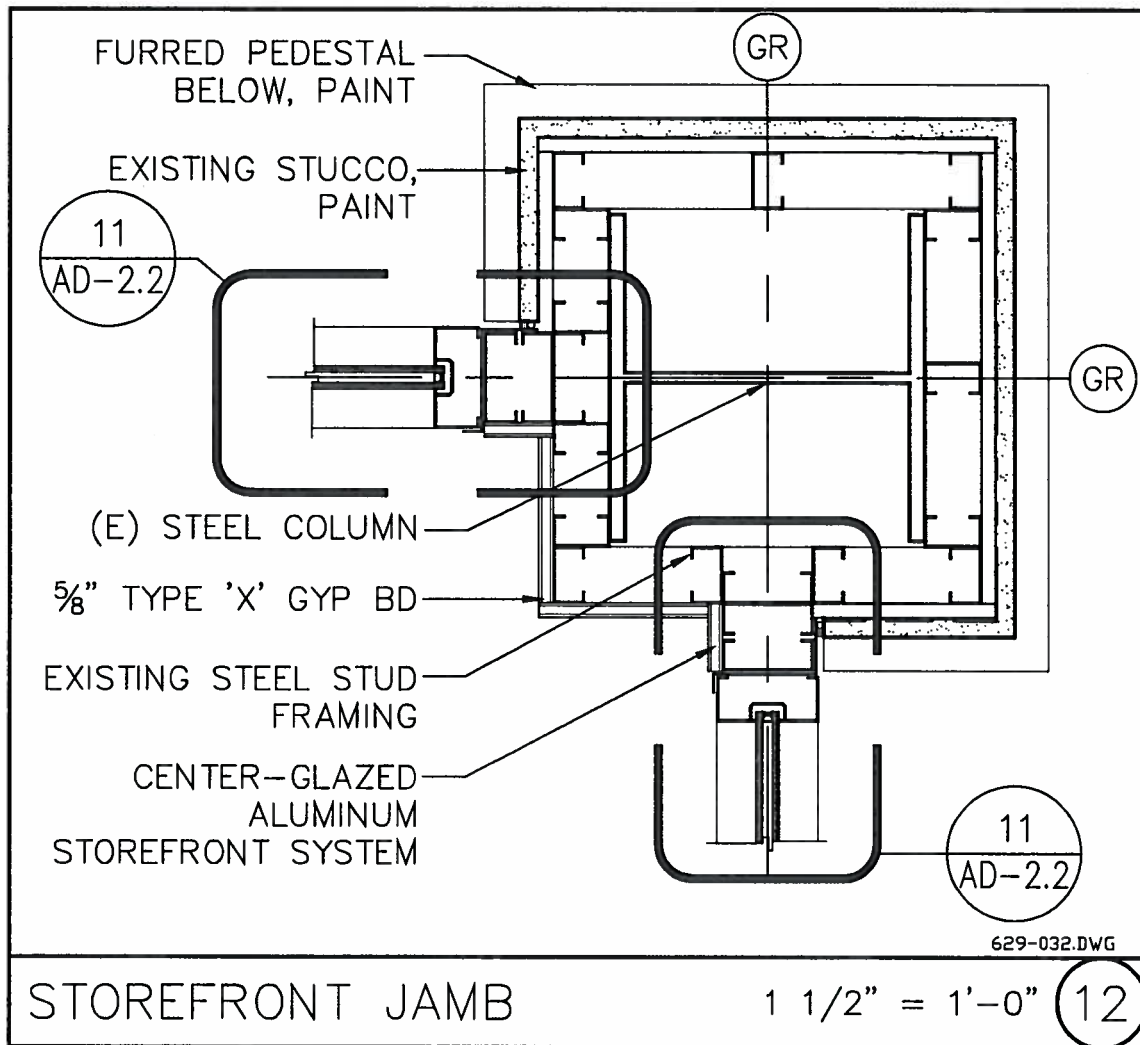
AD1



REPLACED DETAIL 11/AD-2.2

 <p>Roesling Nakamura Terada Architects 363 Fifth Avenue, Suite 202 San Diego, California P619.233.1023 F619.233.0016 www.RNTarchitects.com</p>		<p>TITLE: <b>STOREFRONT JAMB</b></p> <p>REFERENCE SHEET NO: AD-2.2</p> <p>SCALE: 3" = 1'-0"</p> <p><b>UCSB MATERIALS RESEARCH LABORATORY INFILL</b> BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA</p>	<p>UCSB PROJECT NO. <b>FM150347S</b></p> <p>PROJECT NO. <b>13629</b></p> <p>DATE: 04/08/2015</p> <p>SHEET NO. <b>AD1 - A13</b></p>
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AD1



REPLACED DETAIL 12/AD-2.2



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**UCSB**

TITLE: **STOREFRONT JAMB**

UCSB PROJECT NO.  
**FM150347S**

REFERENCE SHEET NO: AD-2.2

PROJECT NO. **13629**

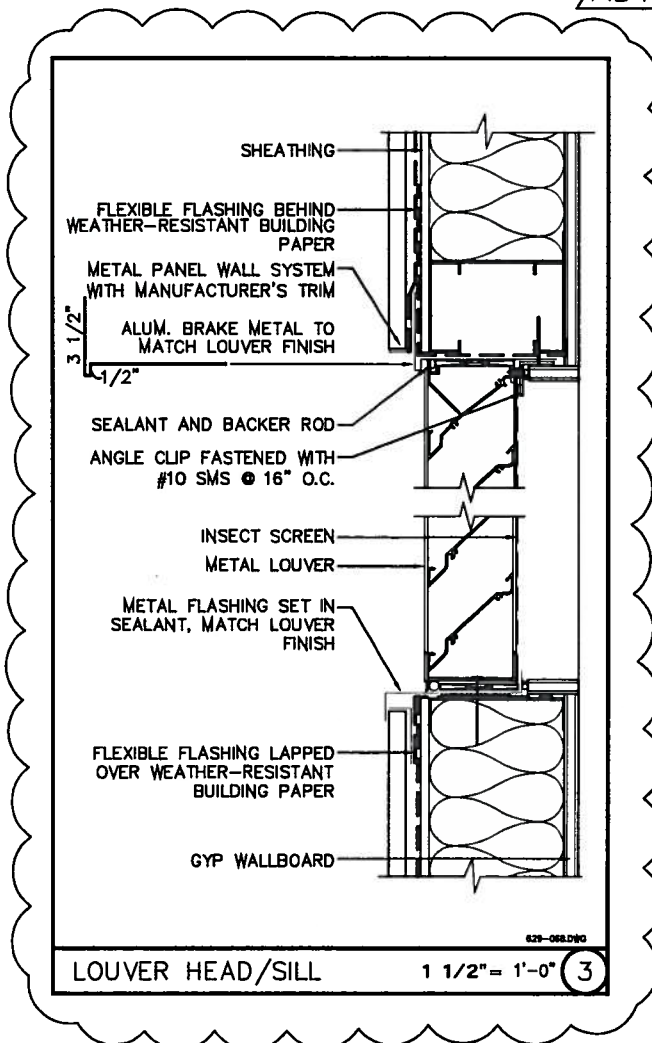
SCALE: 1 1/2" = 1'-0"

DATE: 04/08/2015



**UCSB MATERIALS RESEARCH LABORATORY INFILL**  
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SHEET NO.  
**AD1 - A14**

AD1

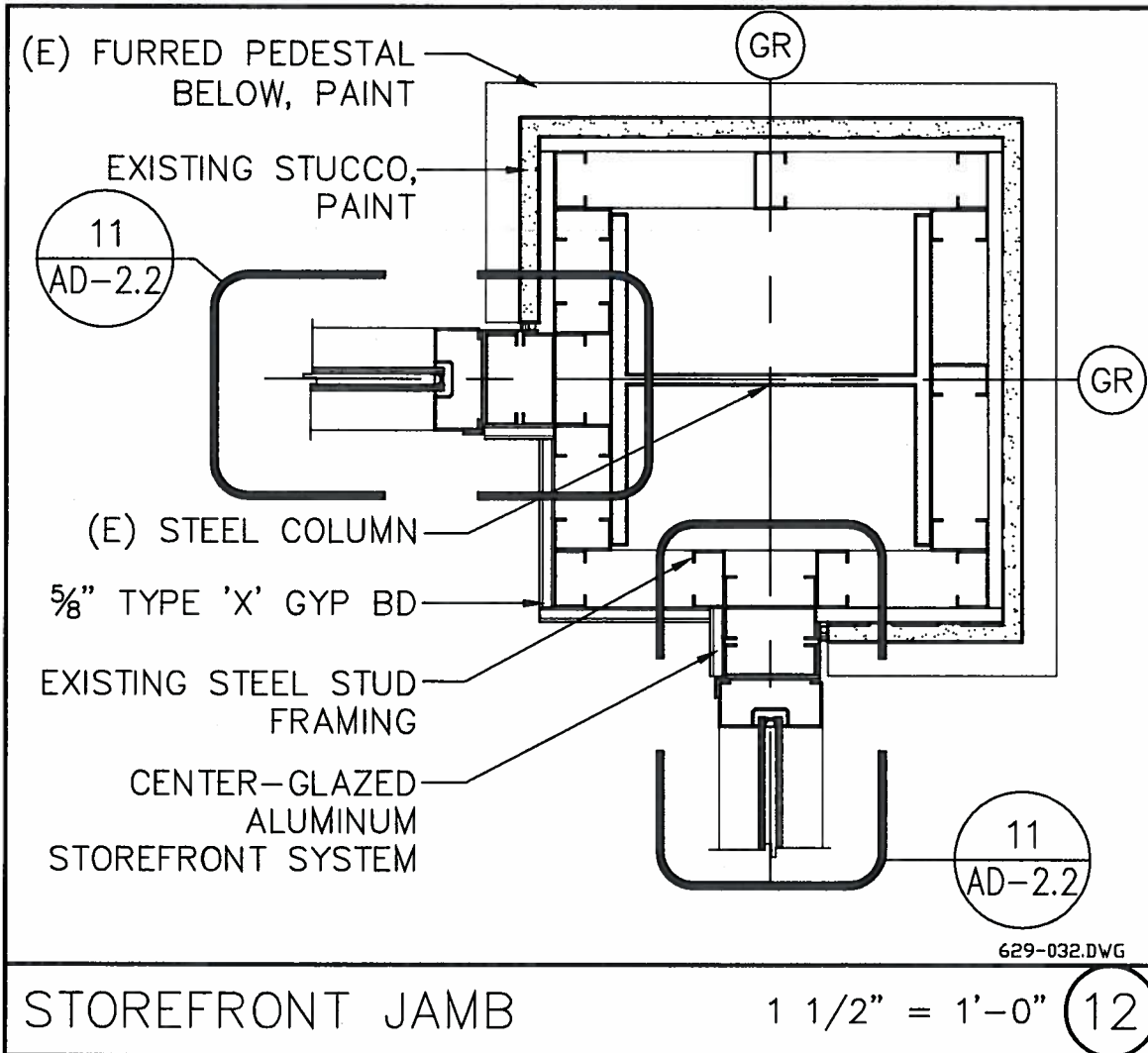


ADDED DETAIL 3/AD-2.2



 <p>Roesling Nakamura Terada Architects 363 Fifth Avenue, Suite 202 San Diego, California P619.233.1023 F619.233.0016 www.RNTarchitects.com</p>		<p>TITLE: LOUVER HEAD/SILL DETAIL</p> <p>REFERENCE SHEET NO: AD-2.2</p> <p>SCALE: 1 1/2" = 1'-0" (3" = 1'-0" ON SHEET AD-2.2)</p> <p>UCSB MATERIALS RESEARCH LABORATORY INFILL BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA</p>	<p>UCSB PROJECT NO. FM150347S</p> <p>PROJECT NO. 13629</p> <p>DATE: 04/08/2015</p> <p>SHEET NO. AD1 - A15</p>
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AD1

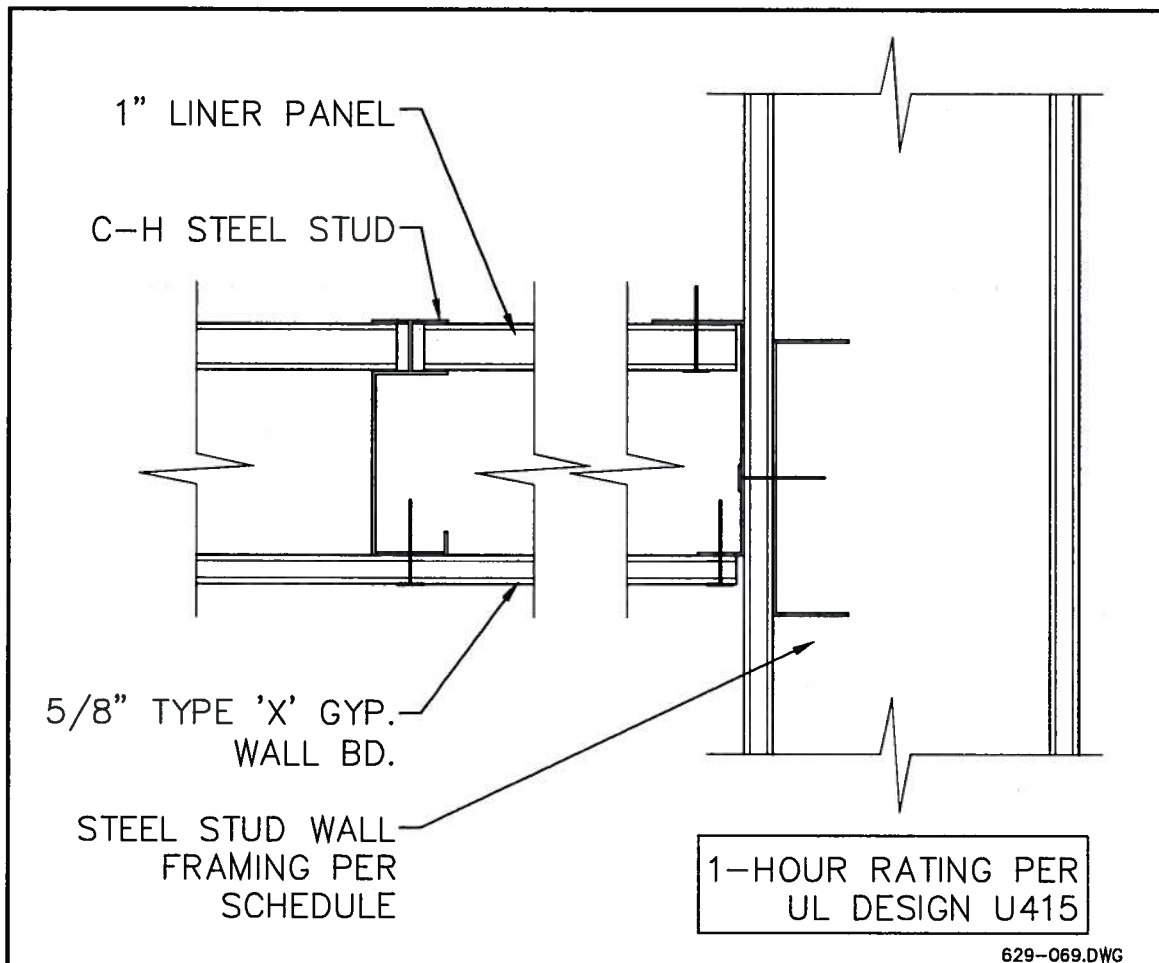


REPLACED DETAIL 12/AD-2.2

 <p>Roesling Nakamura Terada Architects 363 Fifth Avenue, Suite 202 San Diego, California P619.233.1023 F619.233.0016 www.RNTarchitects.com</p>		<p>TITLE: STOREFRONT JAMB</p> <p>REFERENCE SHEET NO: AD-2.2</p> <p>SCALE: 1 1/2" = 1'-0"</p> <p>UCSB MATERIALS RESEARCH LABORATORY INFILL BUILDING 615 UNIVERSITY OF CALIFORNIA, SANTA BARBARA</p>	<p>UCSB PROJECT NO. FM150347S</p> <p>PROJECT NO. 13629</p> <p>DATE: 04/08/2015</p> <p>SHEET NO. AD1 - A14</p>
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AD1



RATED CEILING ASSEMBLY

3" = 1'-0" 17

ADDED DETAIL 17/AD-4.1



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TITLE:  
FIRE-PROTECTION RATED CEILING ASSEMBLY

REFERENCE SHEET NO: AD-4.1

SCALE: 3" = 1'-0"

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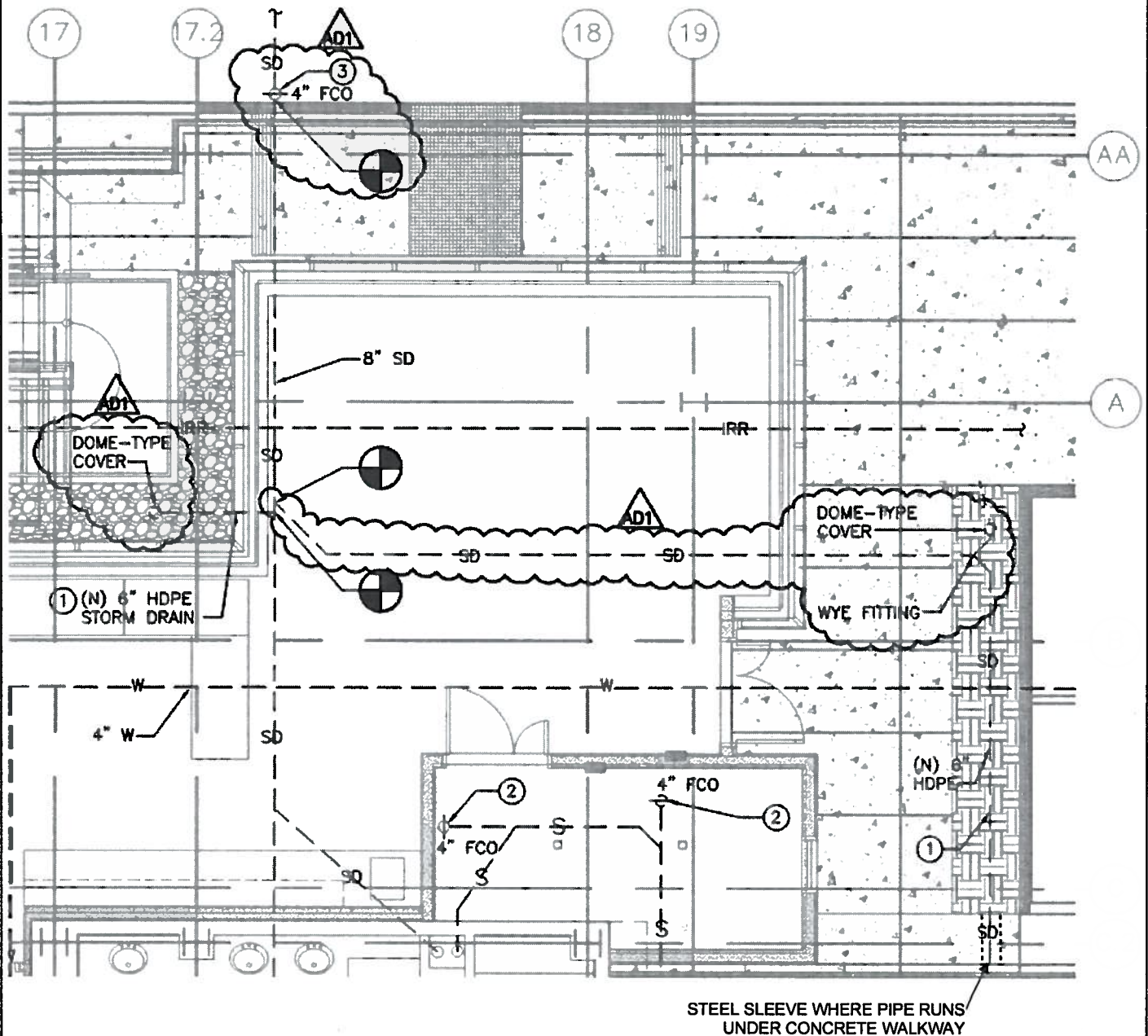
UCSB PROJECT NO.  
FM150347S

PROJECT NO. 13629

DATE: 04/08/2015

SHEET NO.  
AD1 - A16

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TITLE: ADDENDUM 1- PLUMBING

REFERENCE SHEET NO: P3.0

SCALE: NONE

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UCSB PROJECT NO.  
FM150347S

PROJECT NO. 13629

DATE: 04/08/2015

SHEET NO.  
AD1 - P1