

LONG BEACH CITY COLLEGE
Liberal Arts Campus (LAC)
Informal Public Works Bid
“Building V Whiteboard Replacement Project”

PROJECT OVERVIEW

Provide all labor, materials and equipment for the removal and replacement of the whiteboards in Building V, including relocation of electrical outlets, per bid plans and specifications

SCOPE OF WORK

1. Contractor to remove and legally dispose of existing whiteboards in indicated rooms. Patch and repair any damaged gypsum board in the removed areas as necessary and paint to match.
2. Contractor to install district standard markerboards (2) 16’ long boards and (1) 8’ long board in rooms V-159, 161, 162, 173, 174 centered on the walls and according to attached specifications.
3. Contractor to install district standard markerboard one (1) 16’ long boards in rooms V-152, 153, 154, 158, 236, 237, 238, 239, 240, 242, 243, and 244 centered on the walls and according to attached specifications.
4. Electrical receptacles and light switches are to be relocated closer to the wall, but kept at their current height.
5. Contractor to protect in place adjacent walls, flooring, and ceiling tiles.

GENERAL REQUIREMENTS:

- Proposals are due no later than **Tuesday, May 31, 2022 at 2 pm**. Contact Senior Construction Manager Michael Michael (Mmichael.bmt@lbcc.edu), the Assistant Construction Manager - Chibuikem Agwamba (Cagwamba.bmt@lbcc.edu) and Field Engineer - Steven Lemos (Slemos.bmt@lbcc.edu) to schedule a job walk.
- A job walk of the site is optional and will be scheduled for **Friday, May 20th at 11:30 am** at Long Beach City College, Liberal Arts Campus starting in Building V, Room 159 (marked on the Job Site Page of Sheet A001).
- The Project site is to be kept tidy and cleaned daily. Contractor is responsible for preventing the spread of debris and trash around the project site.
- Supervisor is to possess a minimum of OSHA 10 safety certification.
- All arrivals and departure of heavy equipment for the project to be coordinated in advance with the college representative.
- Follow the manufacturer’s directions and requirements as specified for all products used.
- Workers to adhere to OSHA safety guidelines during work including wearing harness (and be tied off) at all times when the fall distance is greater than 6 feet.
- Workers must wear face masks **at all times** while on District property (inside and outside). All workers must follow City of Long Beach Health Department and Long Beach City Covid-19 safety protocols.

Send all-inclusive proposals via e-mail to Michael Michael (Mmichael.bmt@lbcc.edu).

INSURANCE, W9 & BOND INFORMATION

INSURANCE & W9

1. All insurers must be duly licensed and admitted by State of California.
2. Commercial General Liability for bodily injury and property damage, including accidental death in the combined single limit of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate.
3. Worker's Compensation in the amount required by law or signed exemption and Employer's Liability insurance of not less than \$1,000,000.
4. Automobile Liability insurance per accident for bodily and property damage shall not be less than \$1,000,000 per occurrence with no annual aggregate limits.
5. The Long Beach Community College District and its Board of Trustees shall be named as additional insured under all insurance policies, except Worker's Compensation. Additional Insured Endorsements are required and should accompany certificates of insurance.
6. Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.
7. Insurance coverage must be in effect for the duration of the services being performed.

To process a purchase order for payment, Fiscal Operations requires that the enclosed IRS W-9 Form be completed and returned with Insurance documents to Michael Michael at Mmichael.bmt@lbcc.edu.

PAYMENT BOND; PERFORMANCE BOND:

For projects in excess of \$25,000, prior to commencement of the work, the Contractor shall obtain and deliver to the District within seven (7) days after receipt of the Purchase Order, a Labor and Materials Payment Bond and a Performance Bond. Bonds required hereunder will be accepted by the District only if: (a) they are in the form and content included in the Contract; (b) the Bonds are issued by an Admitted Surety insurer under California law; and (c) in a penal sum equal to one hundred percent (100%) of the Contract Price. The Surety issuing the Bonds shall () be authorized to issue Bonds under California Law; and (ii) be A.M. Best Rated at least A-/VII.

PREVAILING WAGE:

The Contractor shall comply with the applicable provisions of the California Labor Code, Division 2, Part 7, Chapter 1, Article 1-5 (Labor Code § 1720-1964), including the payment of the general prevailing rates for public works projects of more than One Thousand Dollars (\$1,000). Copies of the prevailing rate of per diem wages are on the California Department of Industrial Relations web site: www.dir.ca.gov/DIRdatabases.html.

Scope of Work

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- 3. Contractor to install district standard markerboard: one (1) 16' long board in rooms V-152, 153, 154, 158, 236, 237, 238, 239, 240, 242, 243, and 244 centered on the walls and according to attached specifications.
- 4. Electrical receptacles and light switches are to be relocated closer to the wall, but kept at current height.
- 5. Contractor to protect in place adjacent walls, flooring, and ceiling tiles.

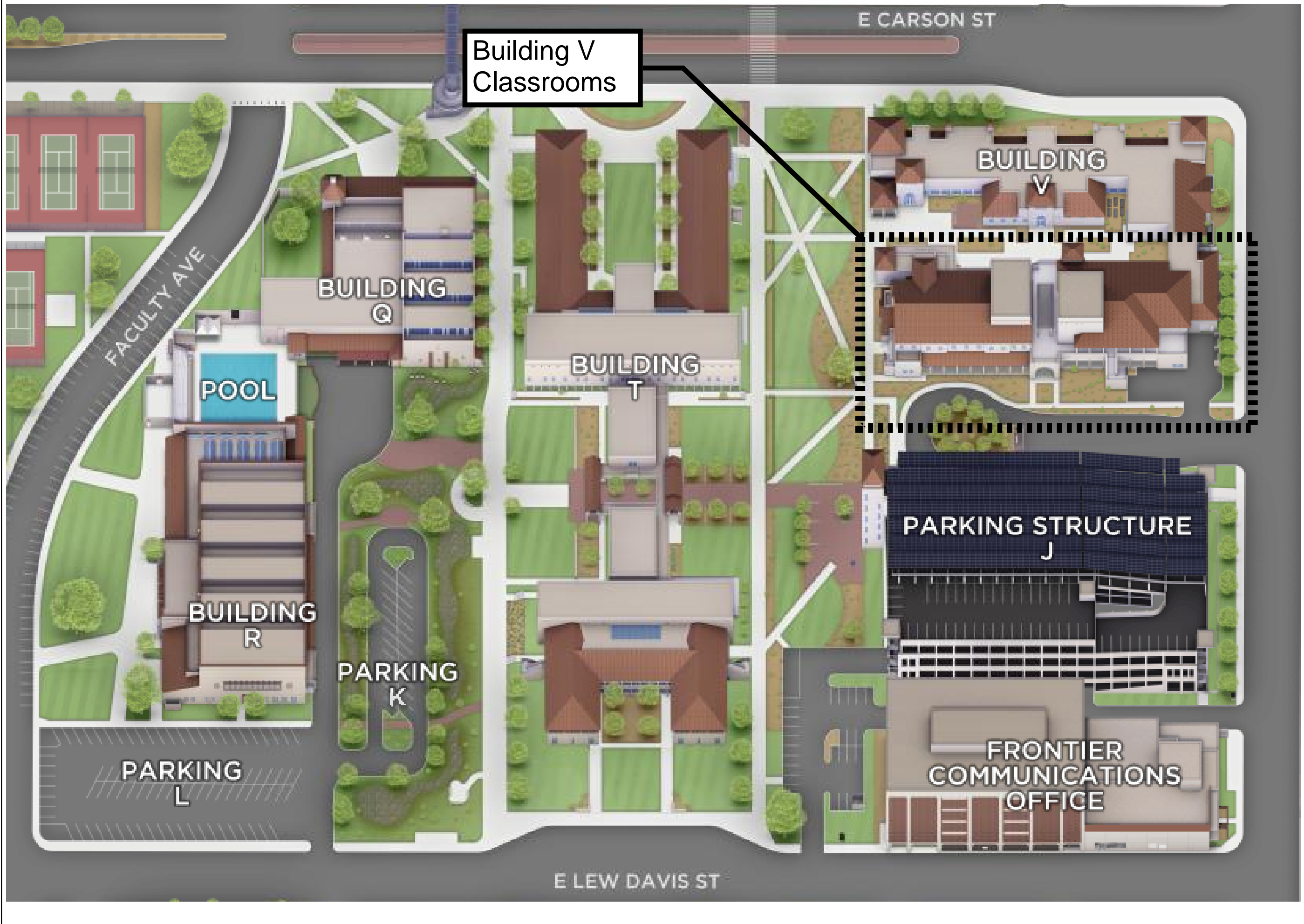
Project Information

- 1. Project Name:
Building V Whiteboard Replacement Project
- 2. Project Address:
4901 East Carson St. Long Beach, CA 90808
- 3. Project Description:
The purpose of this project is to replace whiteboards at the Long Beach City College in multiple classrooms in Building V.
- 4. Owner:
Long Beach City College
- 5. Construction Manager: Facilities Management Team
Long Beach Community College District

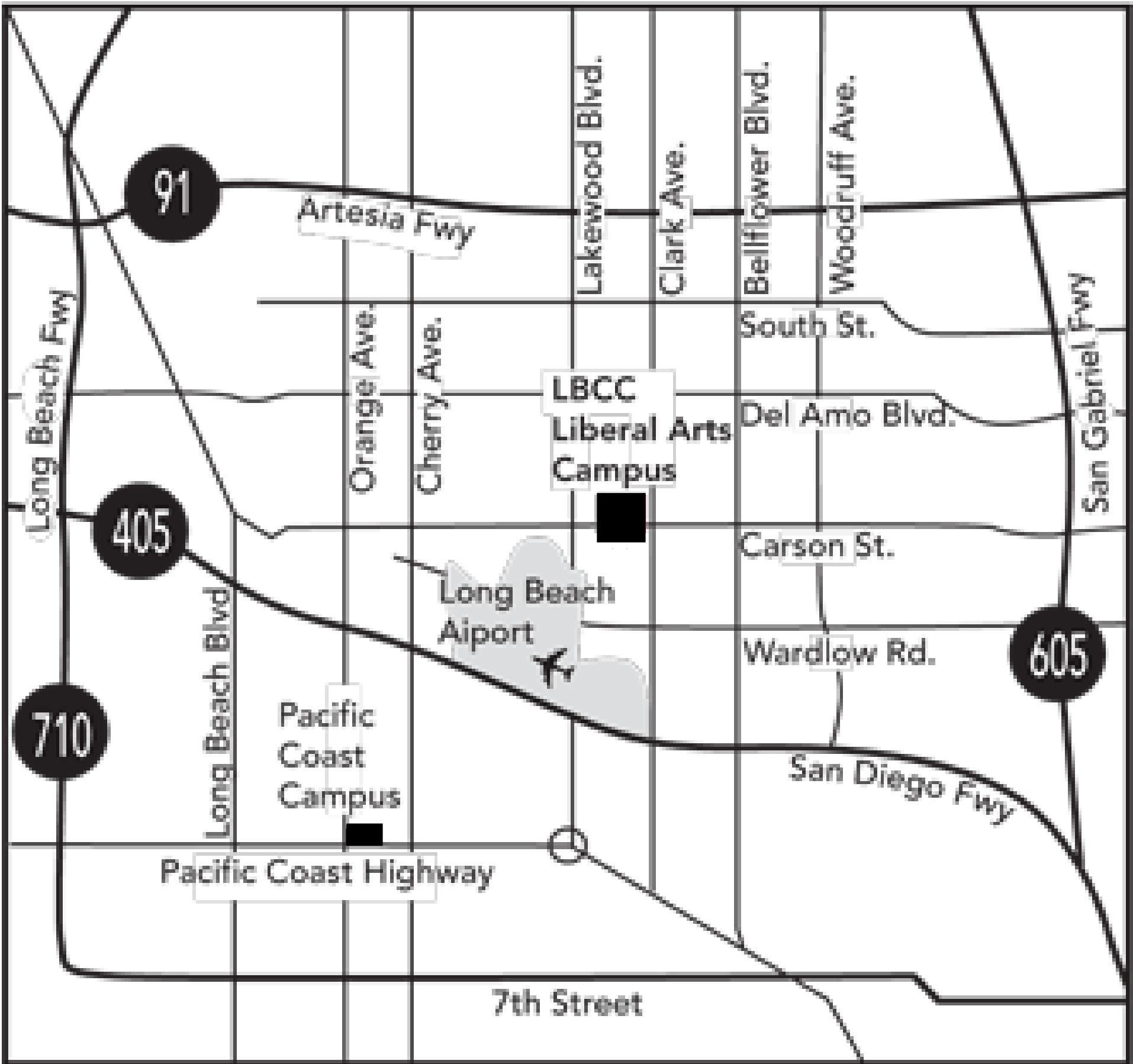
Sheet Index

A000	Cover Sheet
A001	Job Site Page
A002	40' Room Example Measurements
A003	25' Room Example Measurements
S8	Typical Steel Stud Sections and Details

Campus Map



Vicinity Map



Project Title
Building V
White-board
Replacement

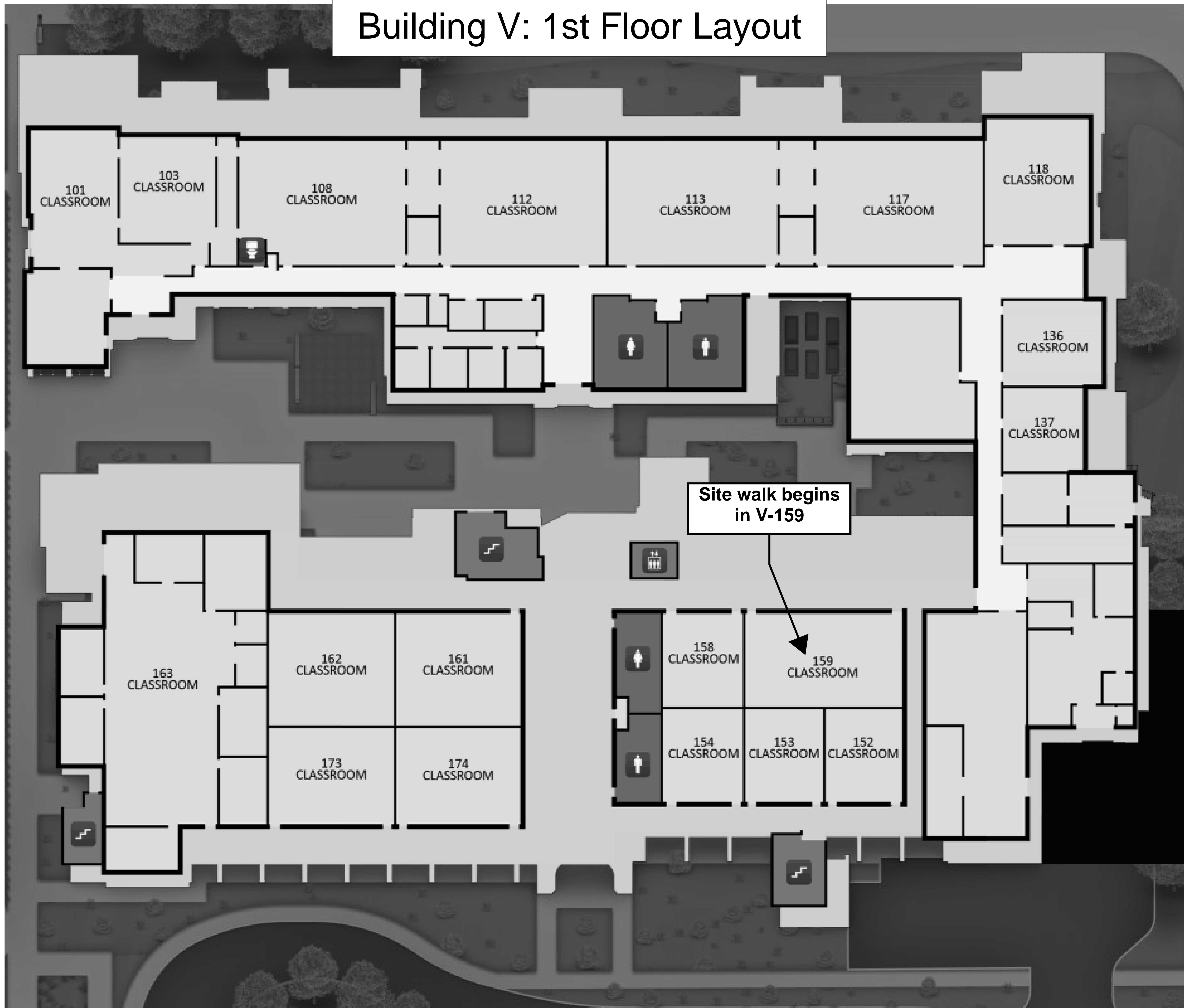
Revisions		
Number	Description	Date

Sheet Title
Cover Sheet

Sheet Number
A000



Building V: 1st Floor Layout



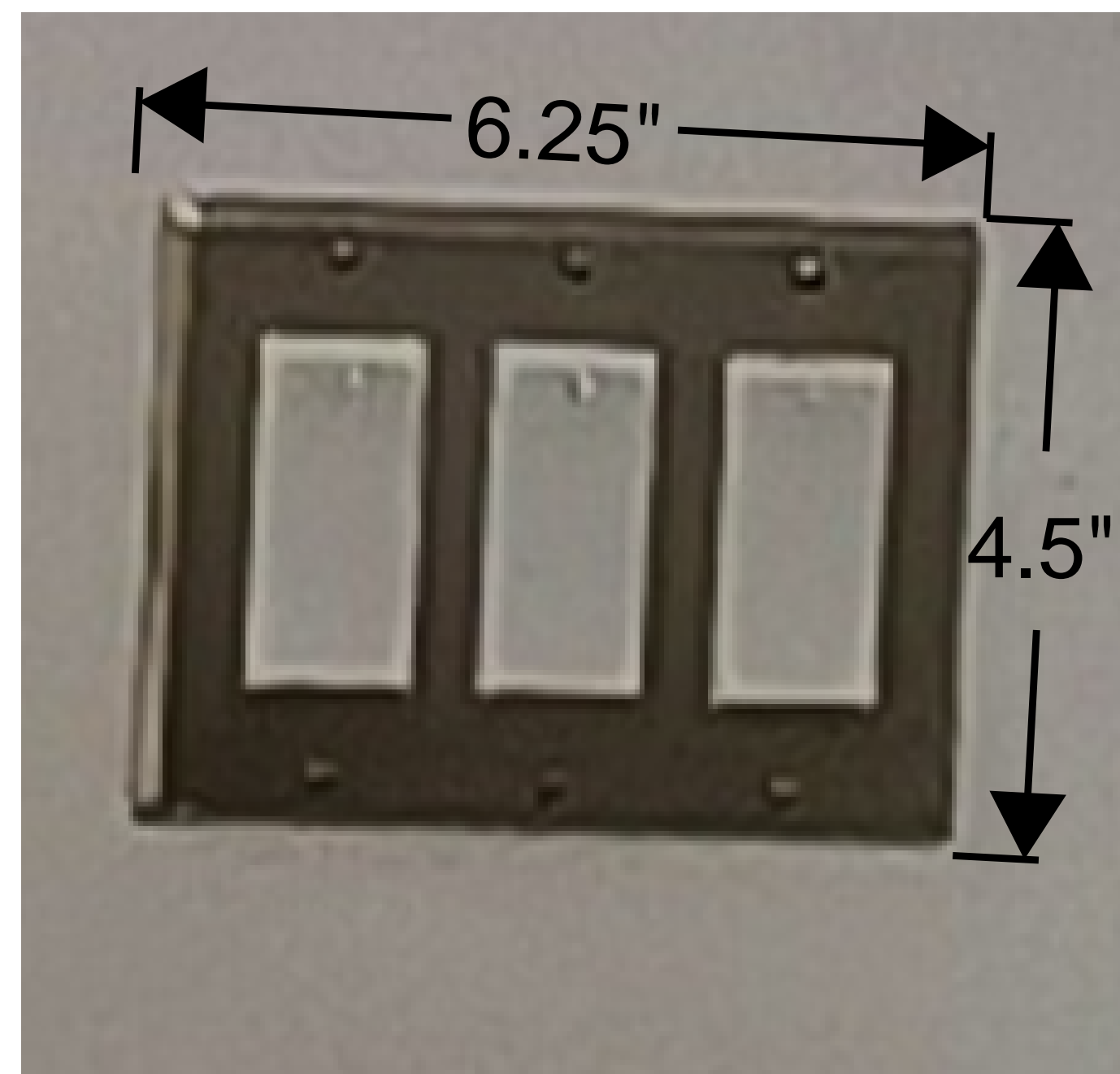
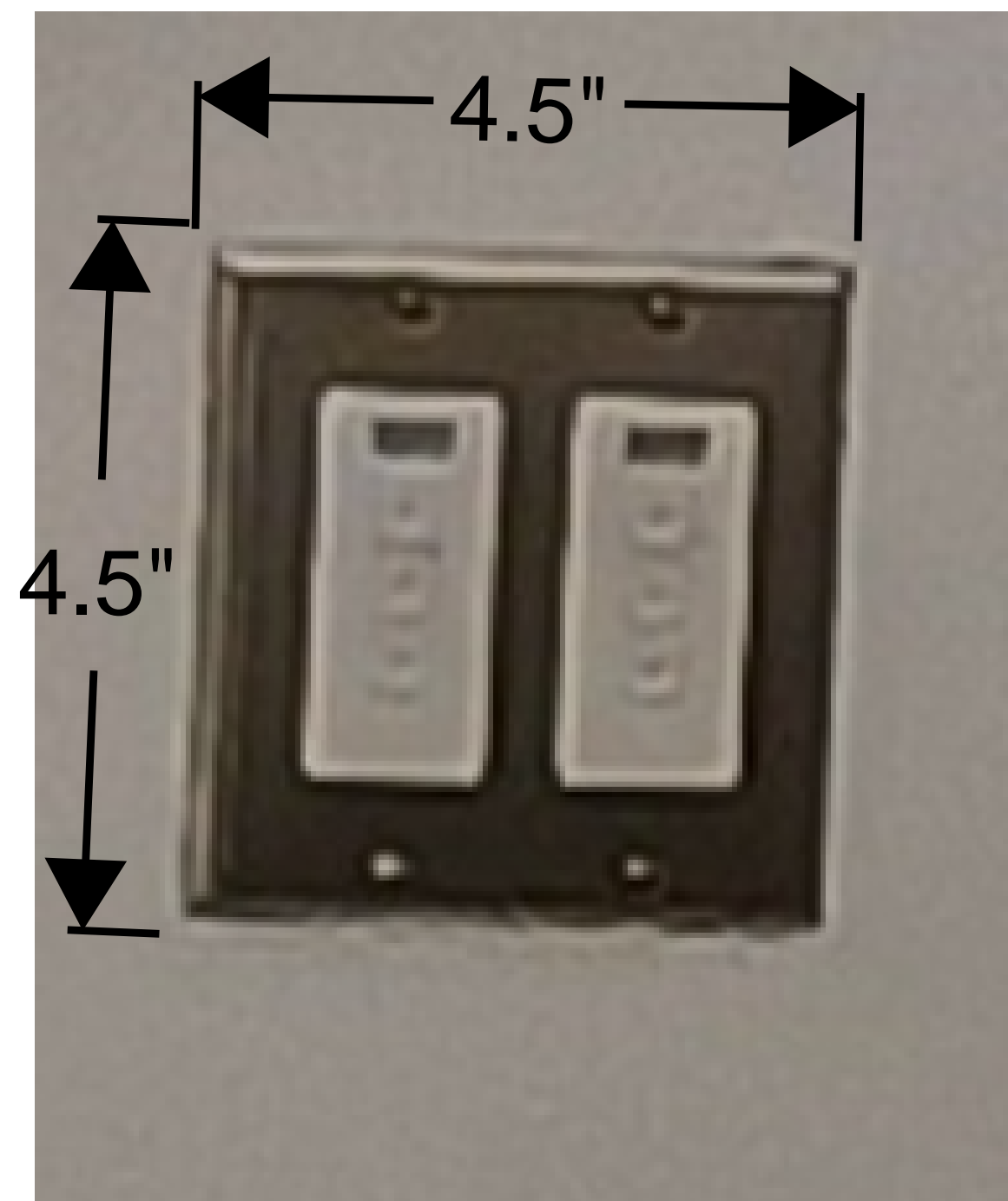
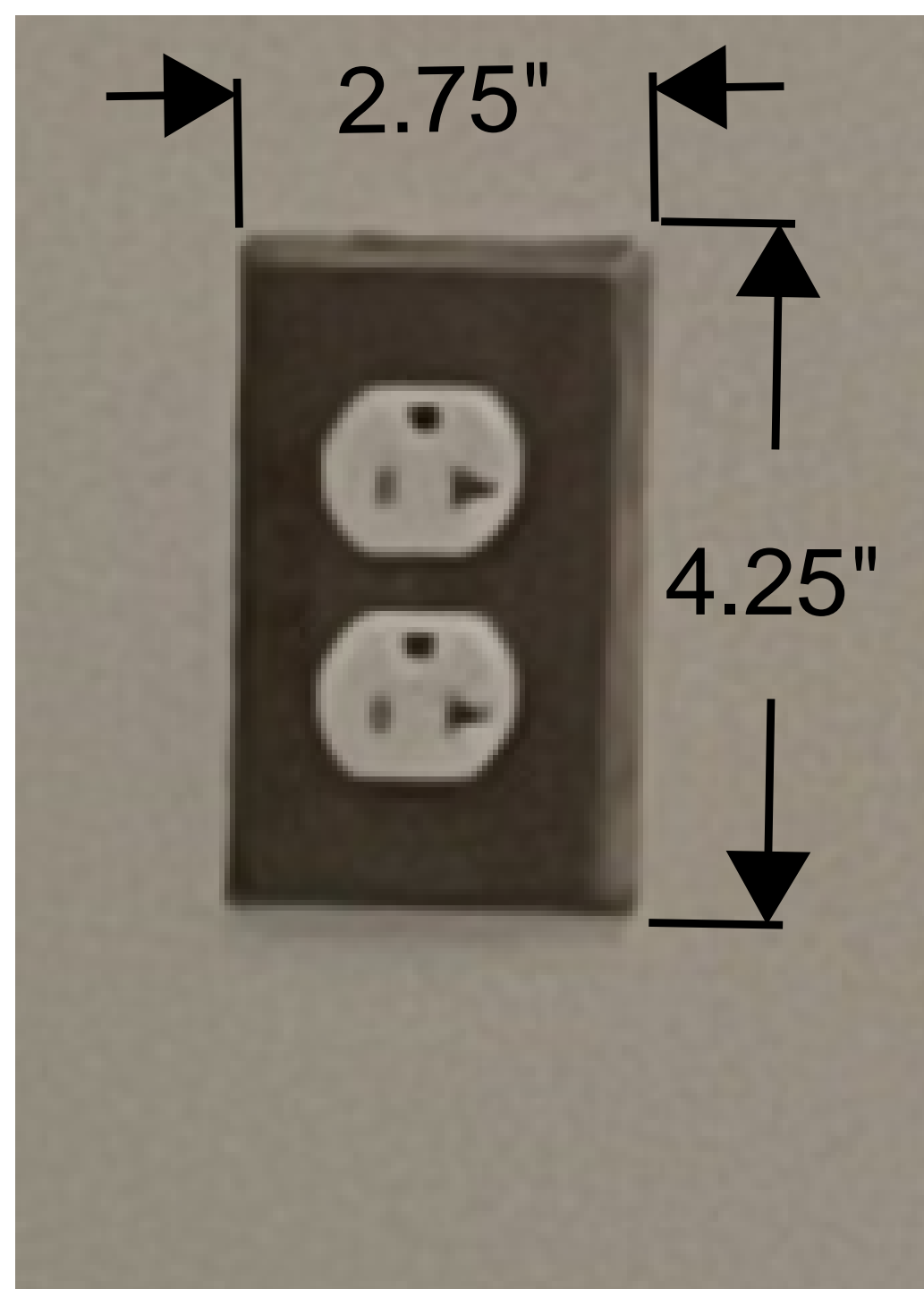
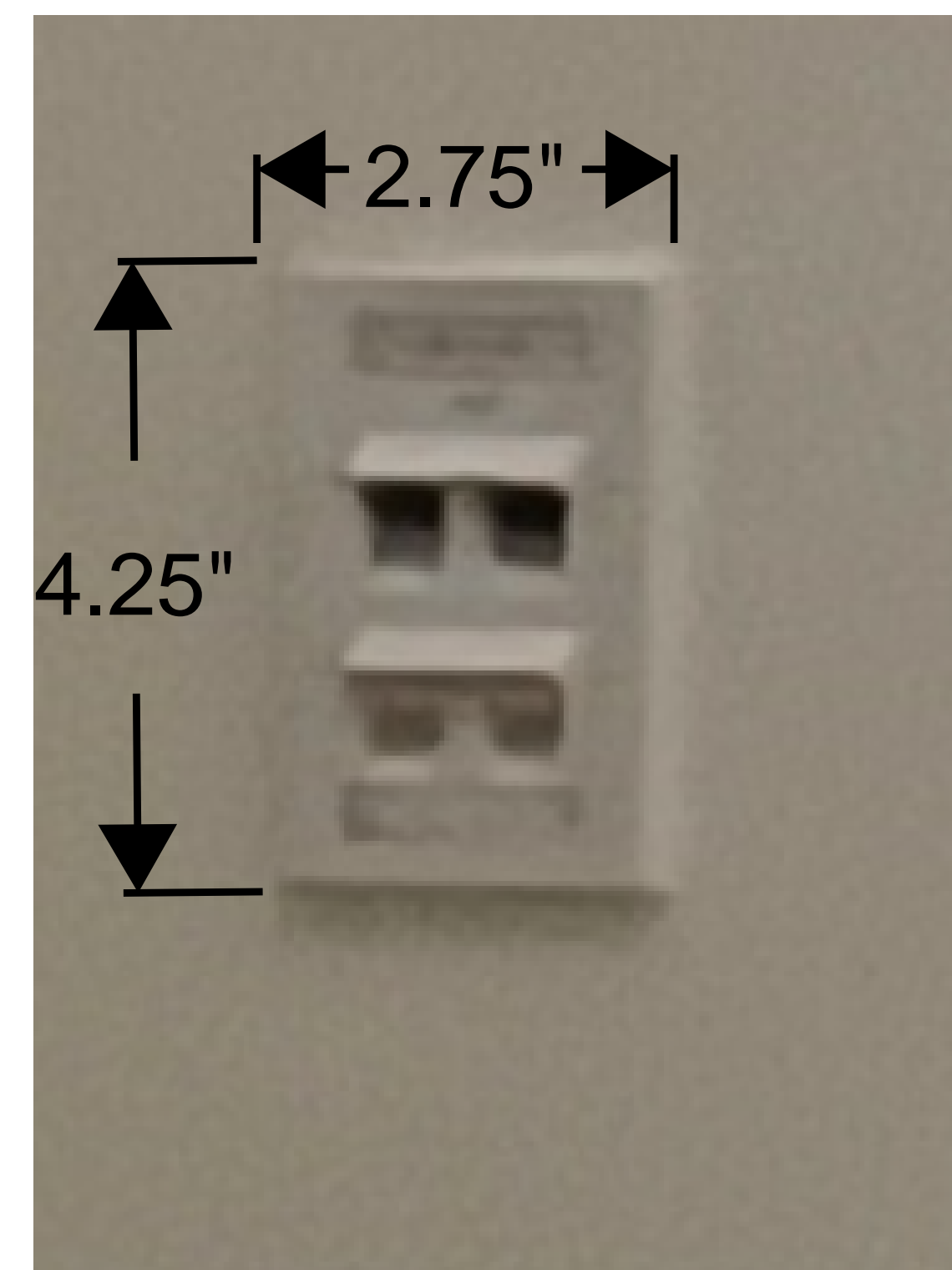
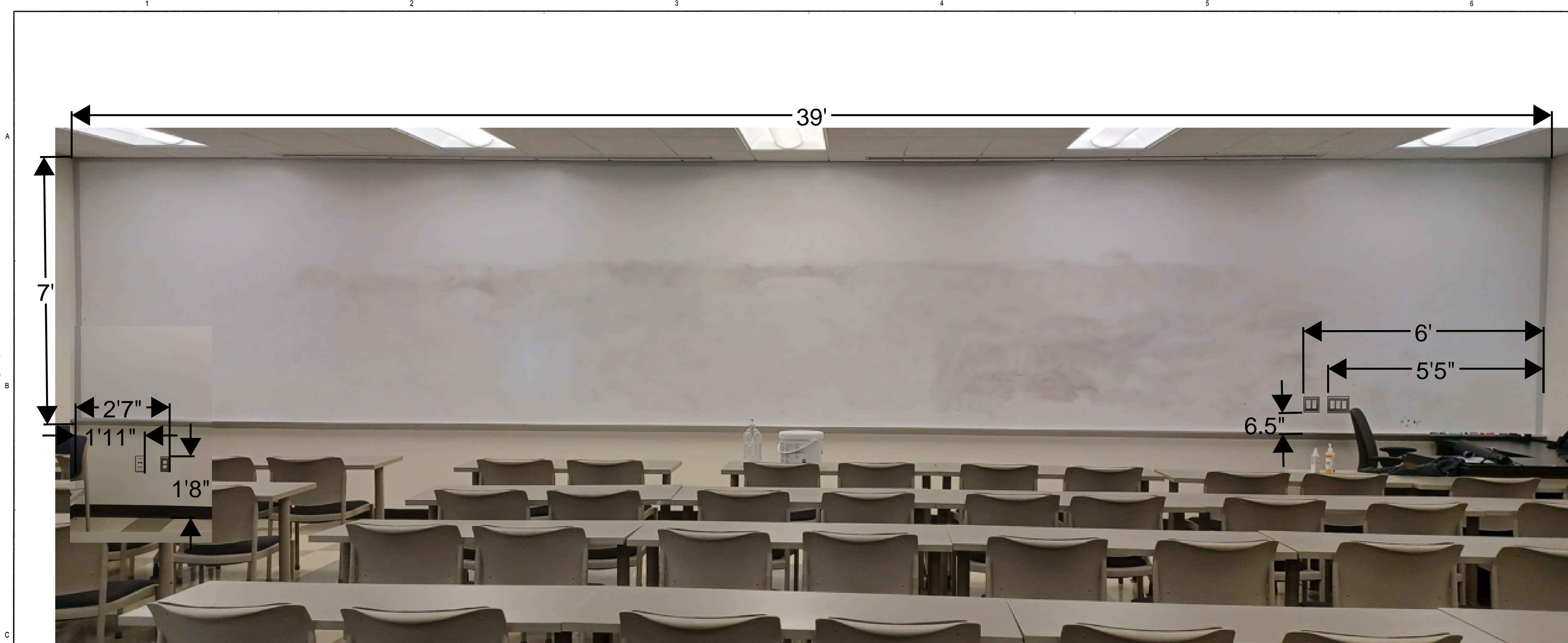
Project Title
Building V
White-board
Replacement

Revisions	Number	Description	Date

Sheet Title
Job Site
Page

Sheet Number
A001





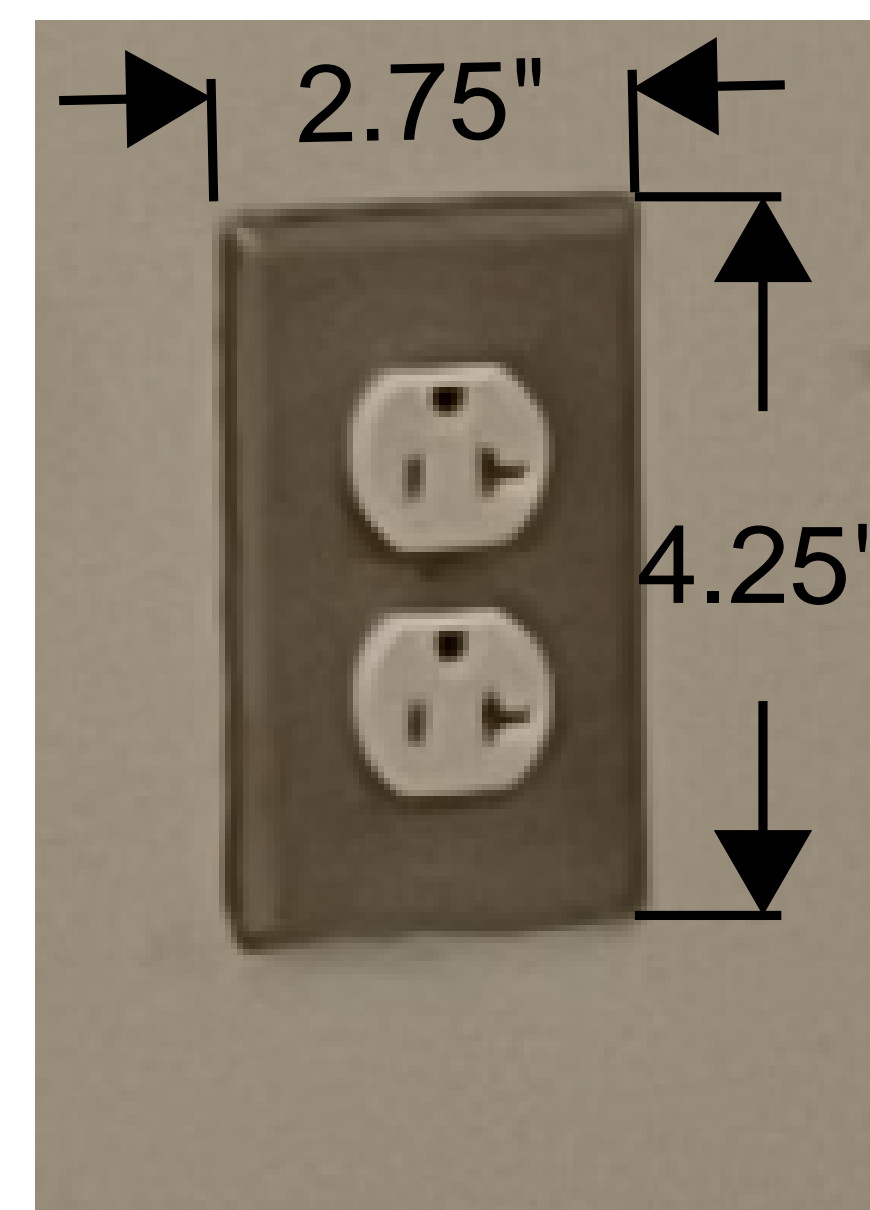
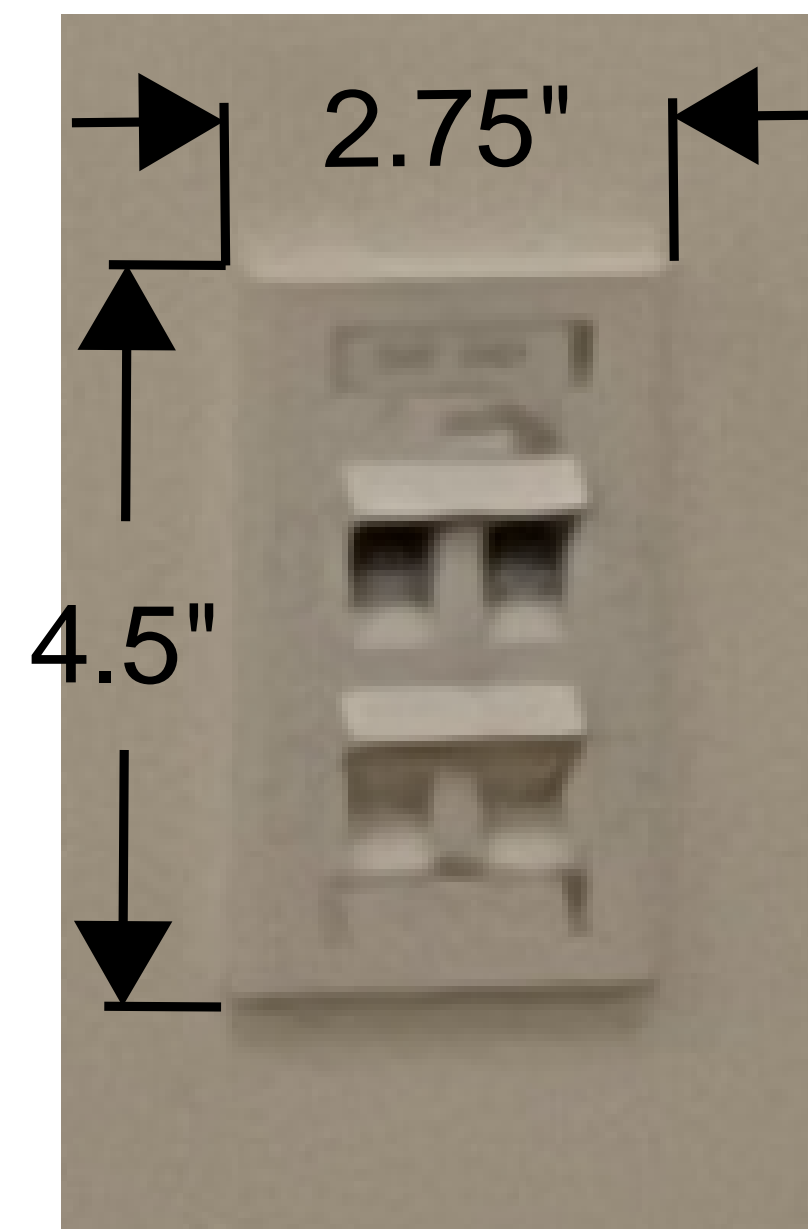
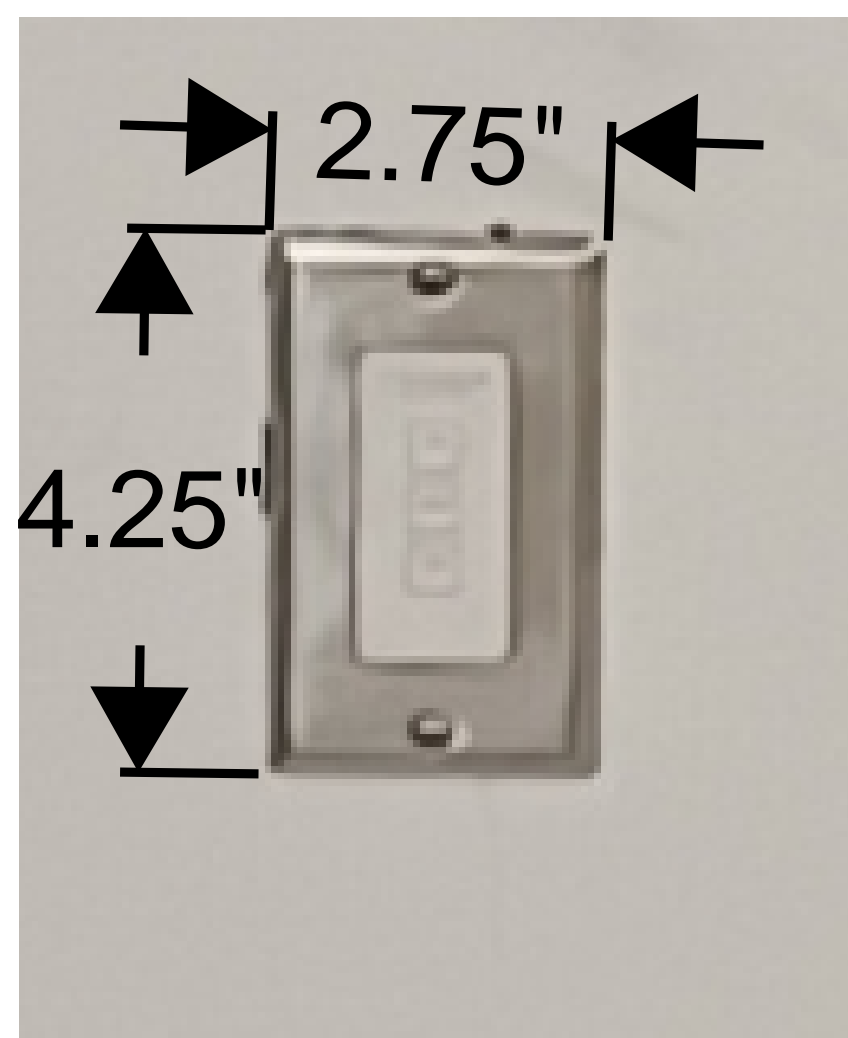
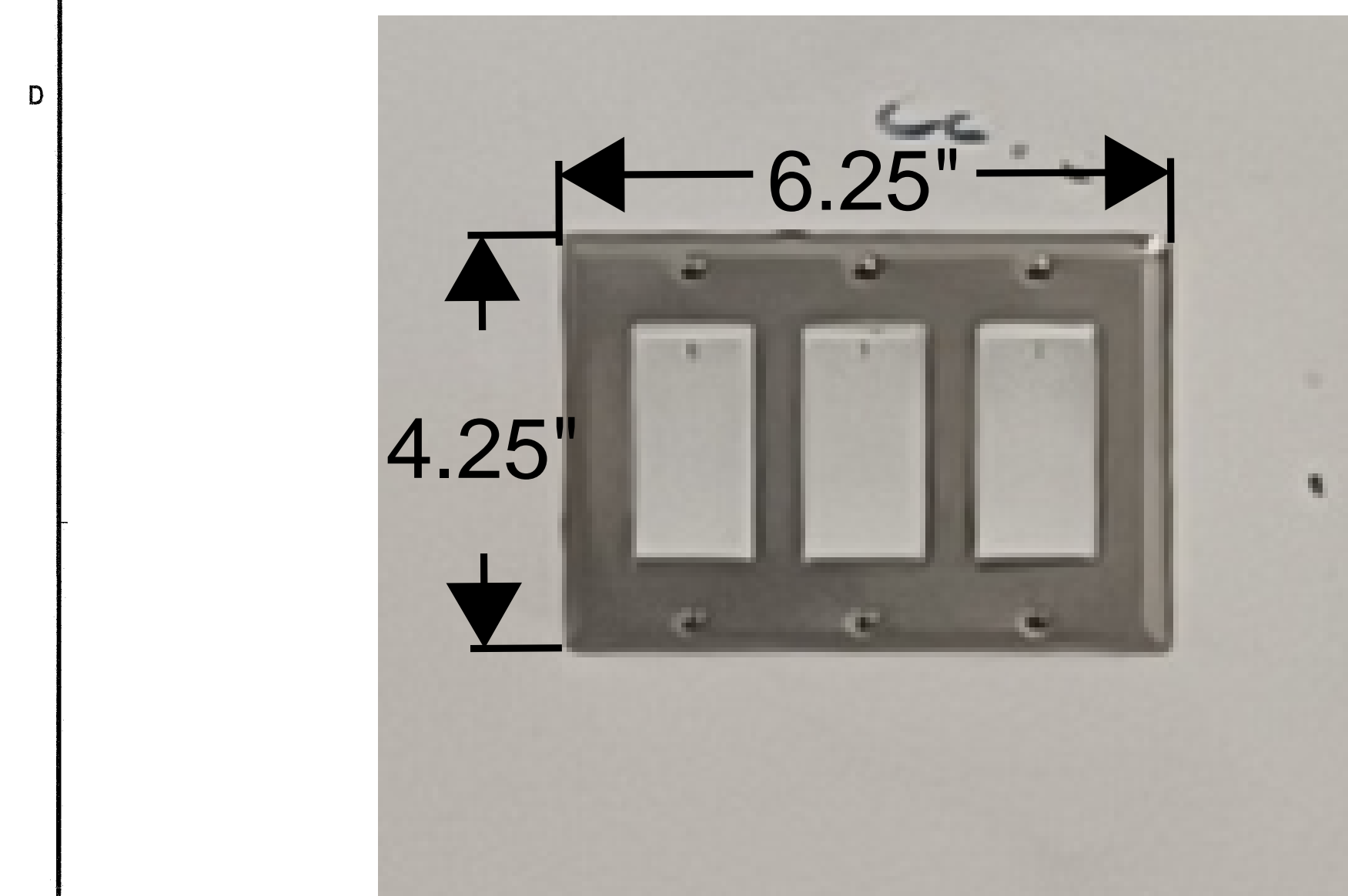
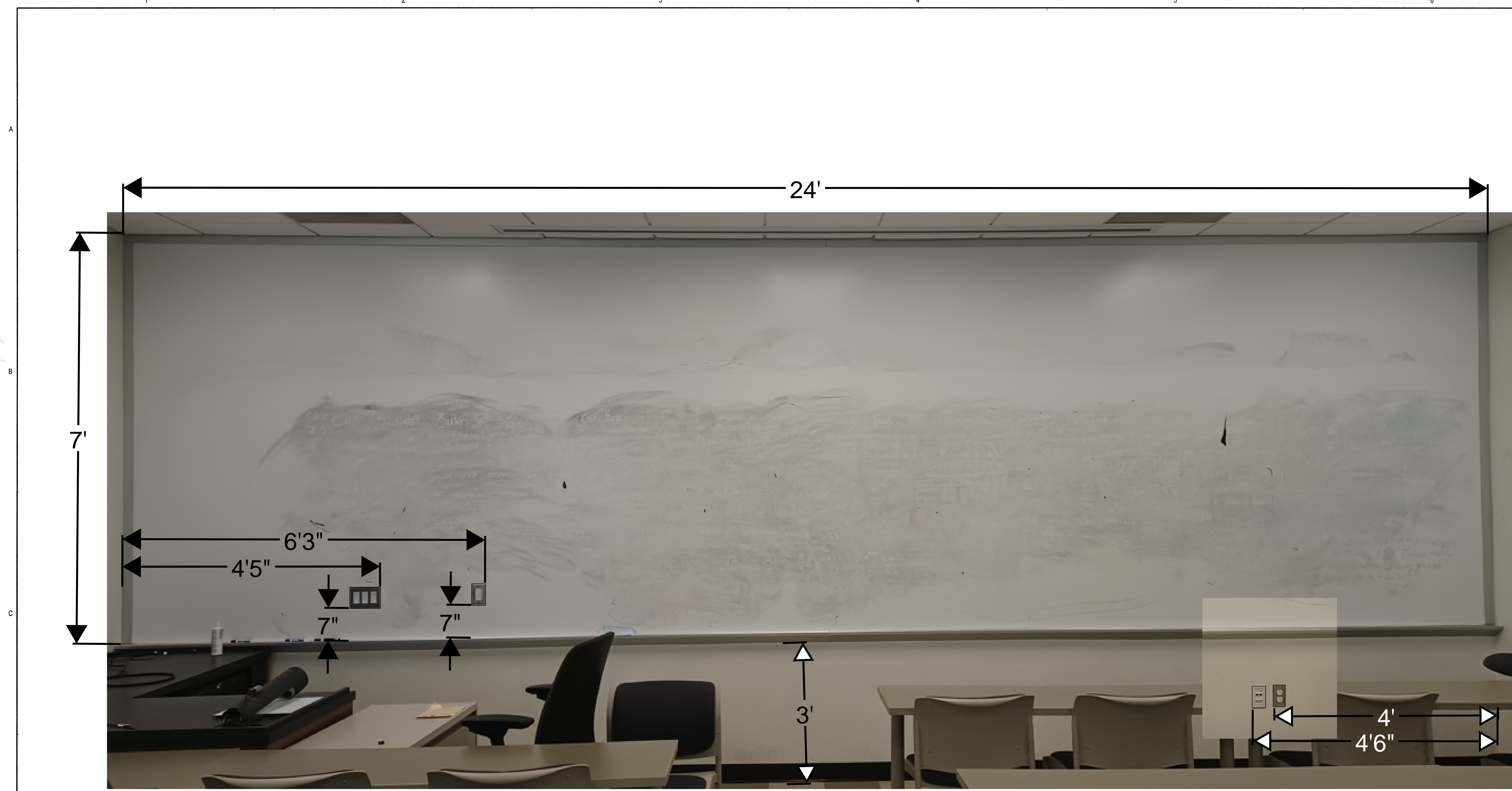
Project Title
Building V
White-board
Replacement

Revisions		
Number	Description	Date

Sheet Title
40' Room
Example
Measurement

Sheet Number
A002





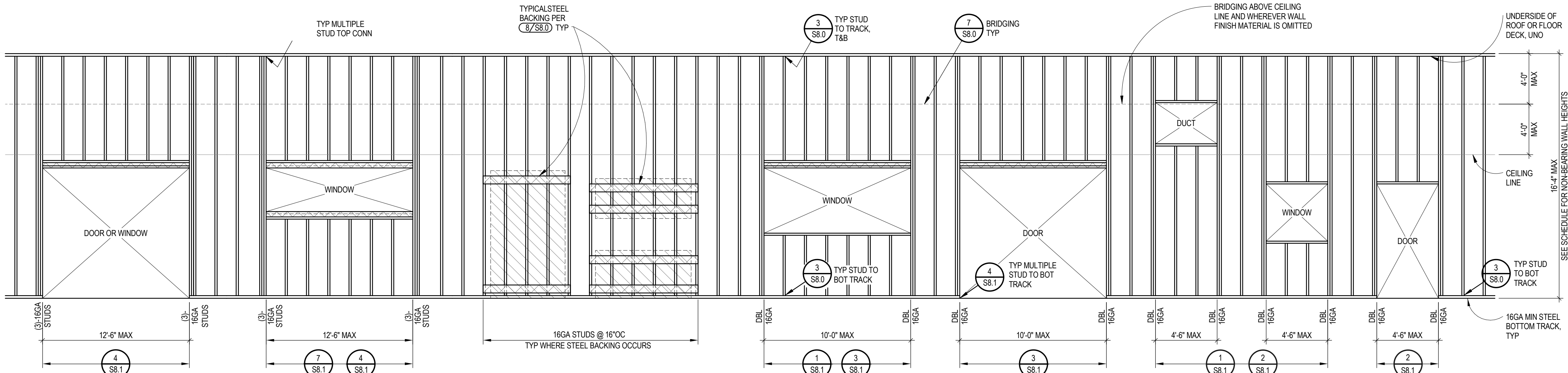
Project Title
Building V
White-board
Replacement

Revisions		
Number	Description	Date

Sheet Title
25' Room
Example
Measurement

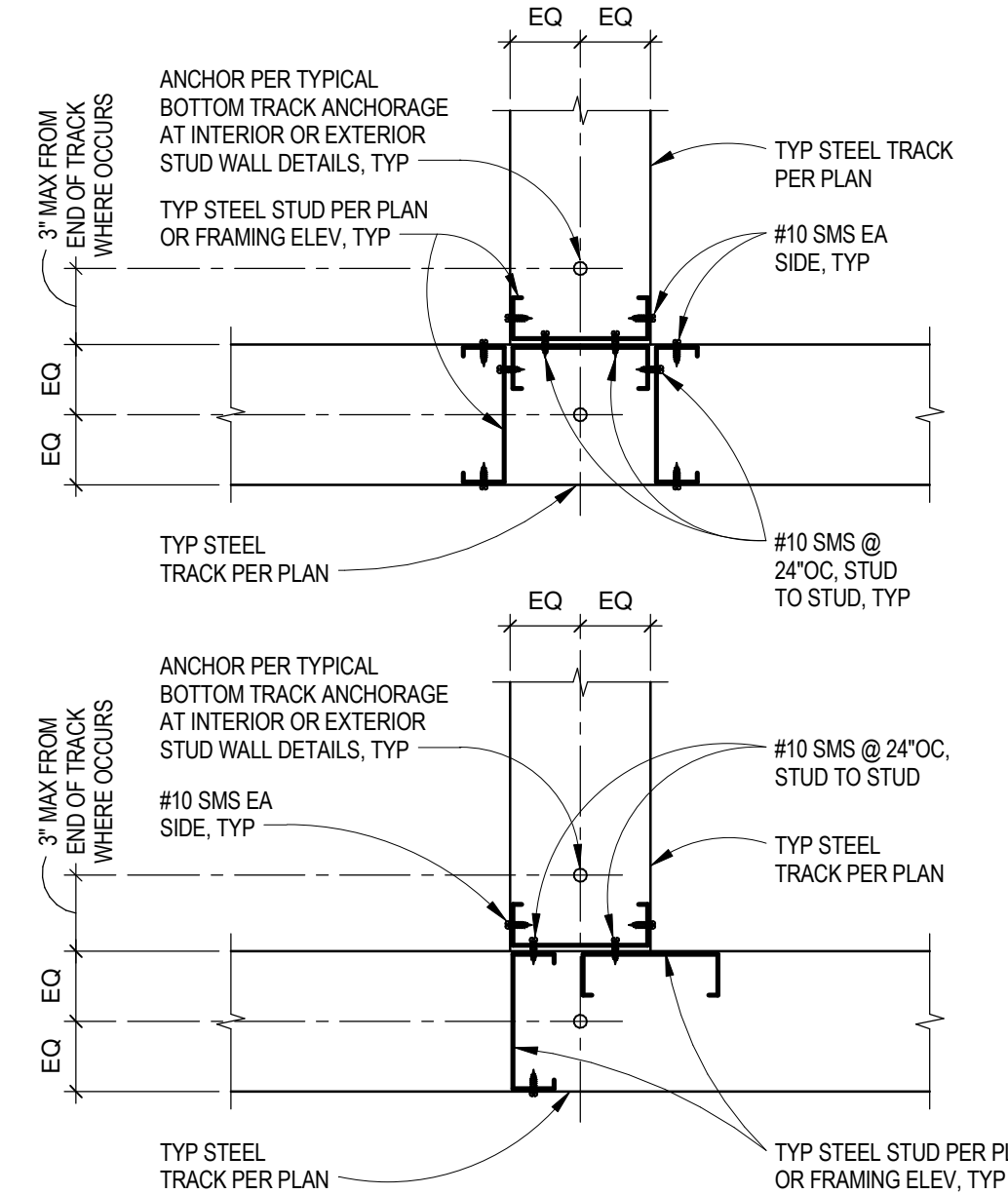


Sheet Number
A003



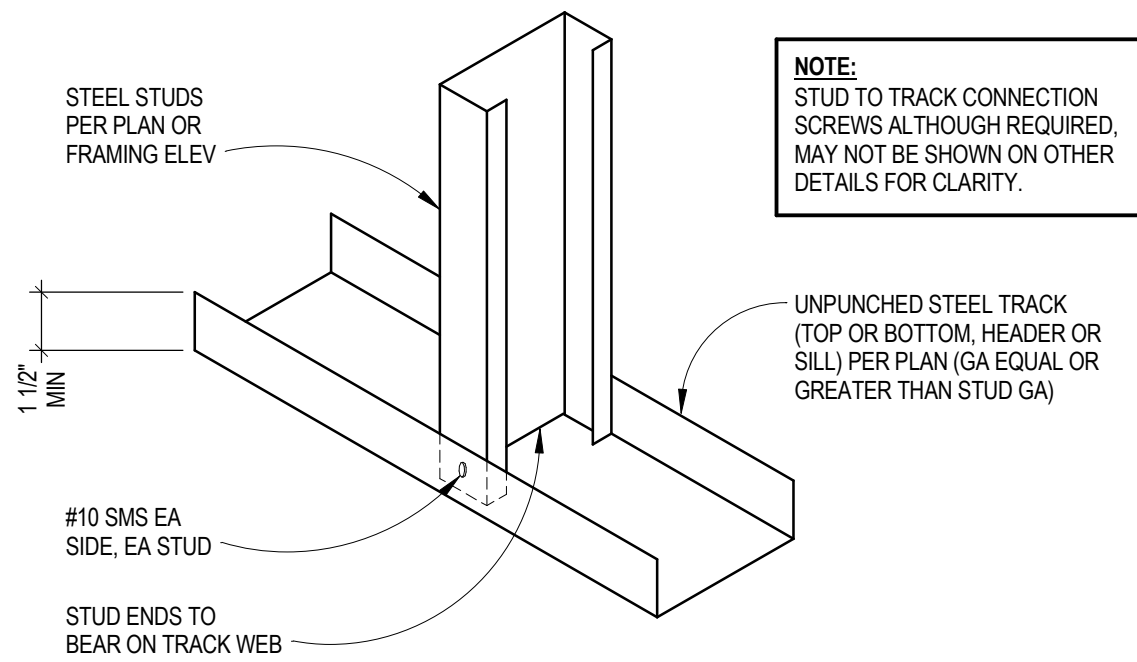
TYPICAL INTERIOR
STEEL STUD WALL FRAMING ELEVATION
SCALE: 1/4" = 1'-0"

A
S8.0



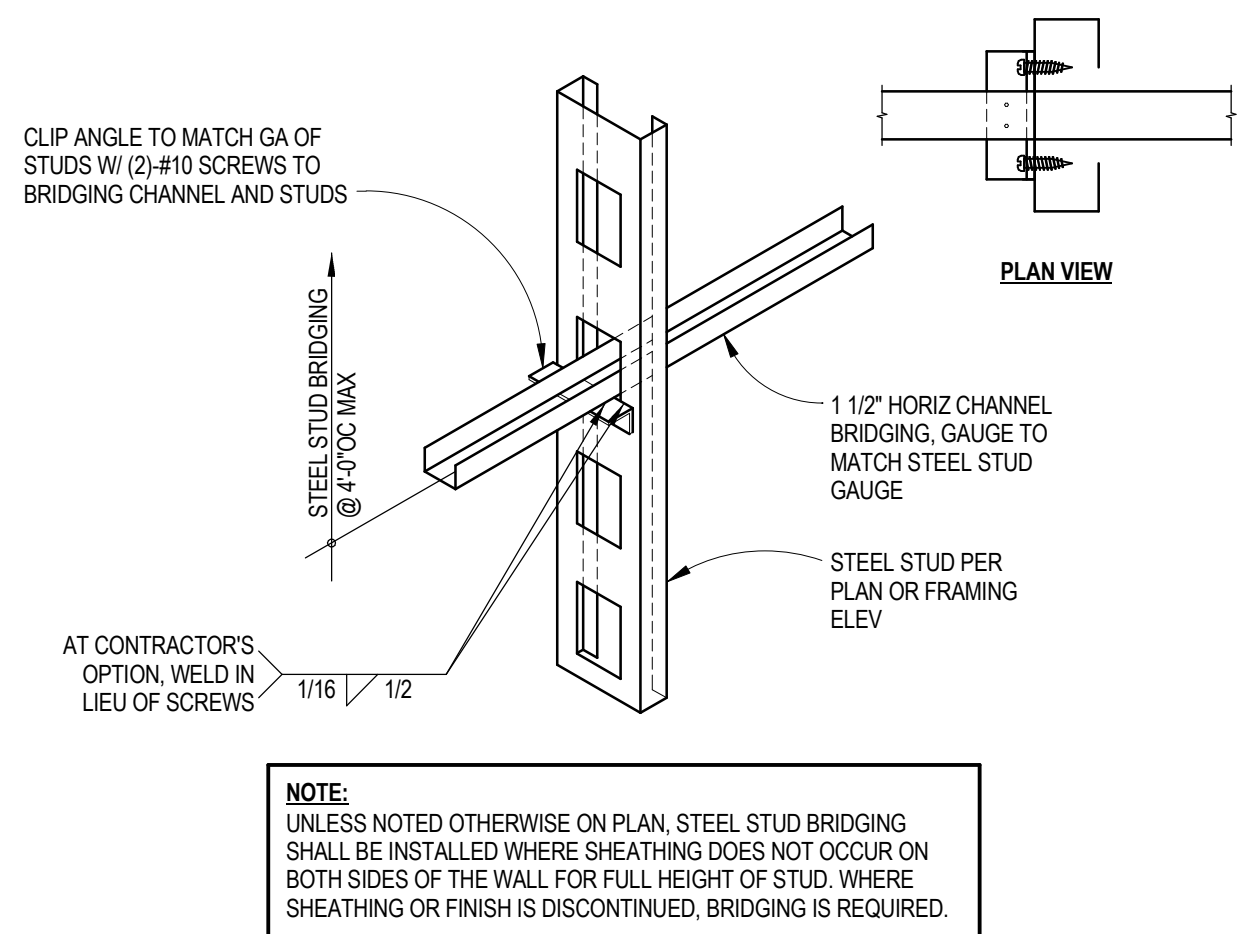
TYPICAL STEEL STUDS AT INTERSECTION
SCALE: 1 1/2" = 1'-0"

6
S8.0



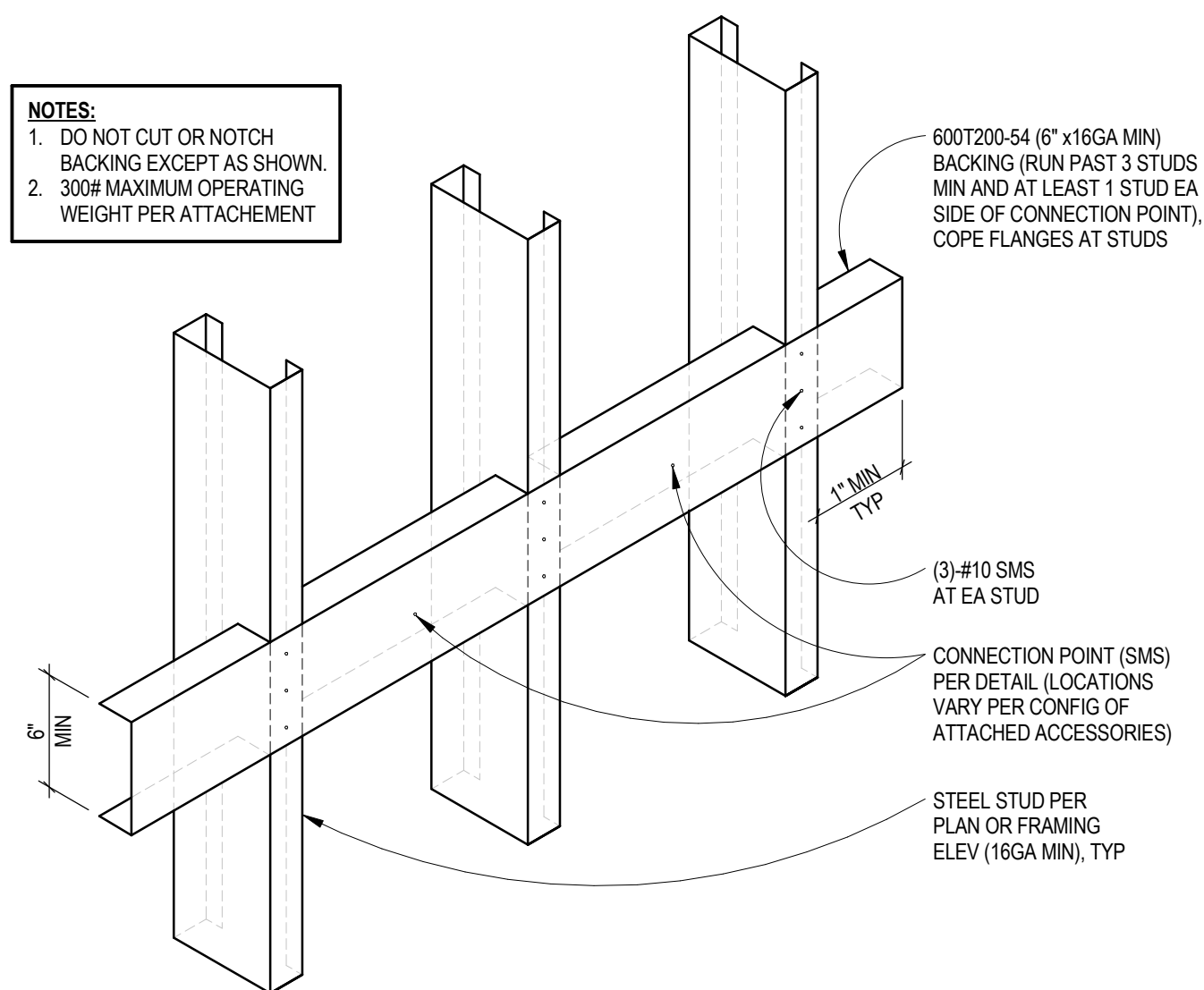
TYPICAL STEEL STUD TO TRACK CONNECTION
SCALE: 1 1/2" = 1'-0"

3
S8.0



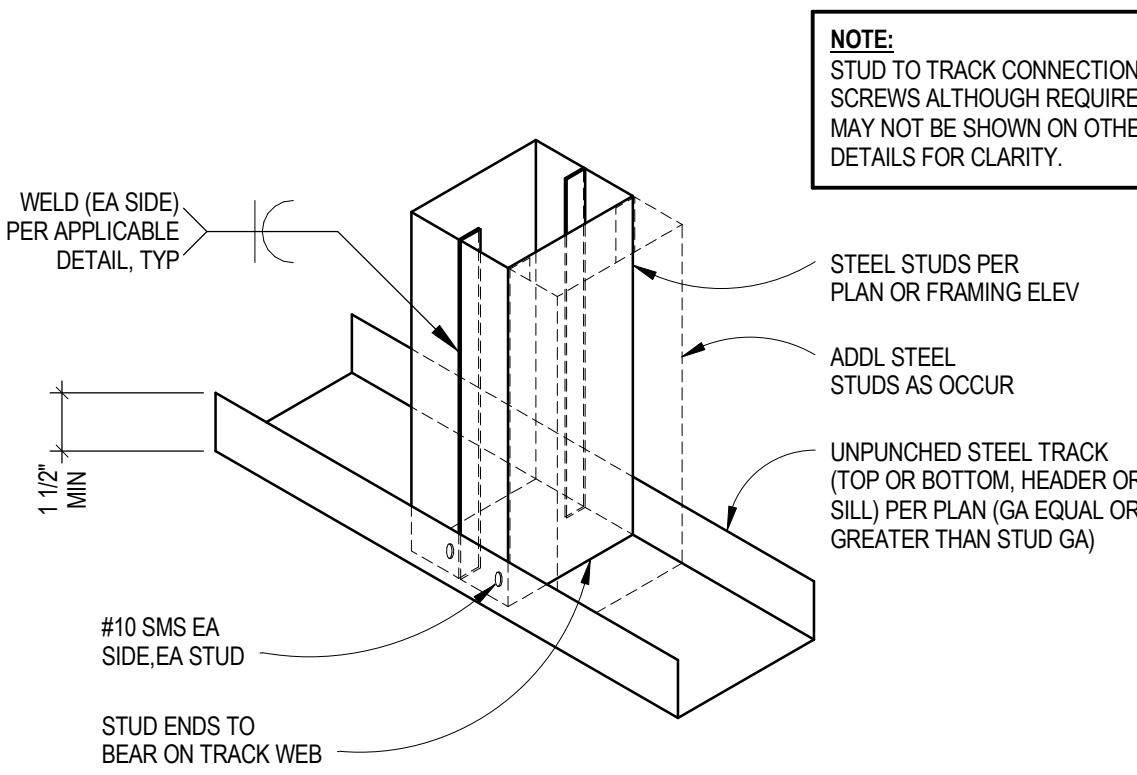
TYPICAL STEEL STUD BRIDGING
SCALE: 1" = 1'-0"

7
S8.0



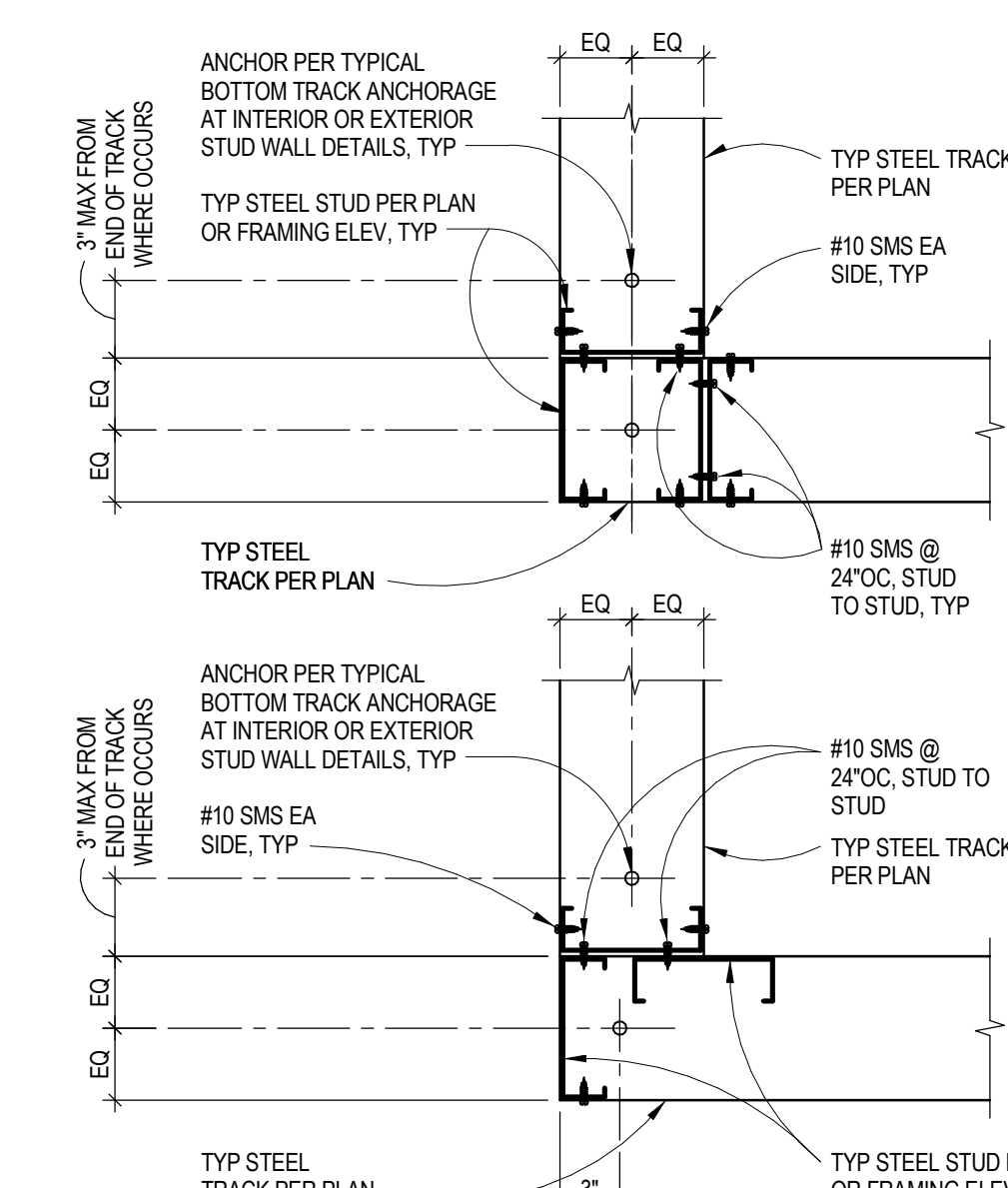
TYPICAL STEEL TRACK BACKING
SCALE: 1 1/2" = 1'-0"

8
S8.0



TYPICAL MULTIPLE
STEEL STUDS TO TRACK CONNECTION
SCALE: 1 1/2" = 1'-0"

4
S8.0



TYPICAL STEEL STUDS AT CORNER
SCALE: 1 1/2" = 1'-0"

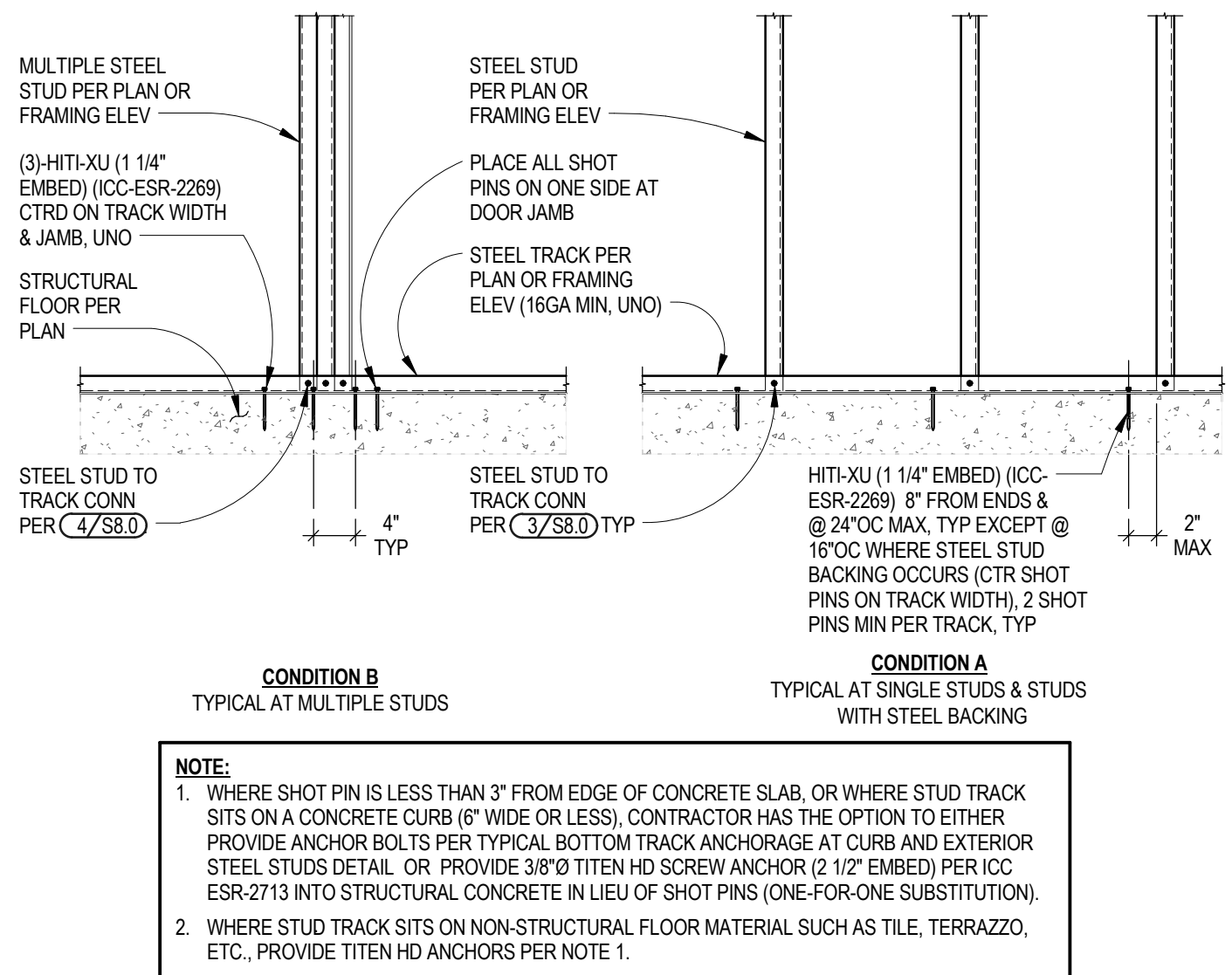
5
S8.0

TYPICAL NON-BEARING INTERIOR STUDS-VERTICAL SPAN SCHEDULE				
HEIGHT OF WALL (VERTICAL SPAN)	MIN STUD SIZE REQUIRED FOR SCHEDULED SPACING (L/360 DEFLECTION CRITERIA) (5 PSF)			
	12"OC	16"OC	24"OC	
8 FT	362S162-33	362S162-33		
10 FT	362S162-33	362S162-33	362S162-33	
12 FT	362S162-33	362S162-33	362S162-33	
14 FT	362S162-33	362S162-33	362S162-43	
16 FT	362S162-33	362S162-43	600S162-43	

NOTES:
1. THIS SCHEDULE IS FOR WALLS NOT USED TO SUPPORT ITEMS REQUIRING BACKING. FRAMING ELEVATION PROVIDES ADDITIONAL REQUIREMENTS.
2. ALTERNATE STUD SIZES MAY BE USED IF THE SECTION PROPERTIES OF THE STUDS USED EXCEED, IN ALL CASES, THE PROPERTIES OF THE SIZES NOTED IN THE SCHEDULE.

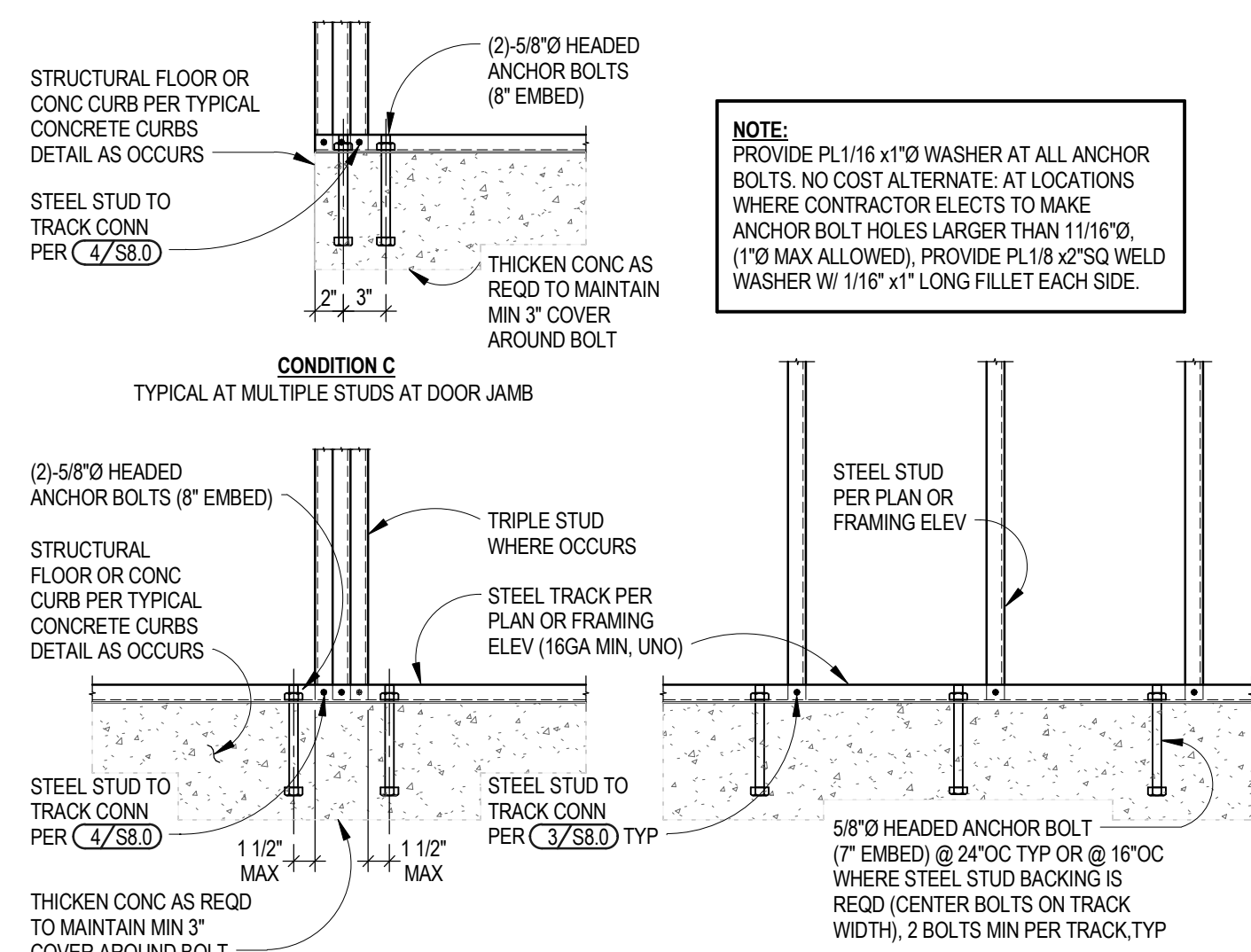
TYPICAL NON-BEARING INTERIOR STUDS-VERTICAL SPAN SCHEDULE
SCALE: 1/4" = 1'-0"

B
S8.0



TYPICAL BOTTOM
TRACK ANCHORAGE AT INTERIOR STEEL STUDS
SCALE: 1" = 1'-0"

1
S8.0



TYPICAL BOTTOM TRACK ANCHORAGE AT
CURB AND EXTERIOR STEEL STUDS
SCALE: 1" = 1'-0"

2
S8.0

DSA USE ONLY

SEALS / APPROVALS

PROJECT TITLE
BUILDING - CONSTRUCTION
TRADES I
LONG BEACH CA 90806

LONG BEACH
CITY COLLEGE

SUBMITTALS	
#	DATE DESCRIPTION

PROJECT IDENTIFICATION
THE DRAWINGS IN THE SHEET INDEX WERE ORIGINALLY CREATED IN AUTOCAD REVIT V. 2016 UNLESS OTHERWISE NOTED.
THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY

CHECKED BY

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SHEET TITLE

TYPICAL STEEL STUD
SECTIONS AND DETAILS

SHEET NUMBER

S8.0

SECTION 101100 - VISUAL DISPLAY SURFACES

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Markerboards.

1.2 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace face sheets that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Life of the building.
- B. Installer's Warranty: 1 year.

1.3 MANUFACTURERS

- A. Markerboard: Subject to compliance with requirements, provide either the named product or an equal product by one of the other manufacturers specified.
 - 1. LCS Markerboard by Claridge Products & Equipment, Inc.; (Basis of Design).
 - 2. Polyvision Corporation.
 - 3. Chatfield Clarke Co.
 - 4. Platinum Visual Systems.
 - 5. A-1 Visual Systems.
 - 6. Or equal.
- B. Painted Markerboard Surfaces: Provide either the named product or an equal product
 - 1. Pro by IdeaPaint.
 - 2. Write-On Paint by Citadle Floor Finishing Systems.
 - 3. Or equal.

1.4 MARKERBOARDS

- A. Product: Markerboard by Claridge Products & Equipment, Inc.
 - 1. Face Sheet: 24 gauge, white.
 - 2. LCS-II, 75 low gloss; dry-erase markers wipe clean with dry cloth or standard eraser. Suitable for use as projection screen. Core Material: 7/16" MDF unless fire retardant materials are required, then provide 7/16 inch Duracore.
 - 3. Panel Backing: Moisture barrier back; 0.002" Aluminum Foil Panel.
 - 4. Metal Frame/Trim: Series #4, 5/8 inch trim face.
 - a. Extruded aluminum, alloy 6063, clear anodized finish.
 - b. Trim for three sides: Side trim with narrow leg exposed and mitered at corners.
 - c. Chalk trough: Outer end corners rounded to approximately 1-1/2 inches radius.
 - 5. Size: As indicated on Drawings.
 - 6. Maprail: 74EZ, 2 inch.

1.5 ACCESSORIES

- A. Aluminum Frames and Trim: Fabricated from not less than 0.062-inch- thick, extruded aluminum; of size and shape indicated.
 - 1. Factory-Applied Trim: Manufacturer's standard.

1.6 FABRICATION

- A. Visual Display Boards: Factory assemble visual display boards, unless otherwise indicated.
 - 1. Where factory-applied trim is indicated, trim shall be assembled and attached to visual display boards at manufacturer's factory before shipment.
 - 2. Factory-Assembled Visual Display Units: Coordinate factory-assembled units with trim and accessories indicated. Join parts with a neat, precision fit. Make joints only where total length exceeds maximum manufactured length. Fabricate with minimum number of joints, balanced around center of board, as acceptable to Architect.
 - 3. Where size of visual display boards or other conditions require support in addition to normal trim, provide structural supports or modify trim as indicated or as selected by Architect from manufacturer's standard structural support accessories to suit conditions indicated.
- B. Aluminum Frames and Trim: Fabricate units straight and of single lengths, keeping joints to a minimum. Miter corners to neat, hairline closure.
 - 1. Where factory-applied trim is indicated, trim shall be assembled and attached to visual display units at manufacturer's factory before shipment.

1.7 ALUMINUM FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- D. Class II, Clear Anodic Finish: AA-M12C22A31 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.010 mm or thicker) complying with AAMA 611.

END OF SECTION 101100



Visual display boards
for every project

from the classroom
to the boardroom



PRODUCT CATALOG

Serving the industry for 67 years.



Claridge MAIN OFFICE
AND PRODUCTION FACILITY
601 Highway 62-65 South
P.O. Box 910
Harrison, Arkansas
Zip 72602-0910
Phone: 870-743-2200
Toll Free: 800-434-4610
Fax: 870-743-1908
claridge@claridgeproducts.com

CLARIDGE LOS ANGELES
Manufacturing & Distribution
180 North Sherman Road
Corona, California
Zip 92882
Phone: 951-734-6262
Fax: 951-734-6464
claridge@claridgewest.com

SOUTHEAST DIVISION
Sales & Fabrication
100 Jeanette Barrett Industrial Blvd
Wetumpka, Alabama
Zip 36092
Phone: 334-514-4524
Fax: 334-514-4855
claridge@claridgesec.com

EASTERN DIVISION
Distribution Center
245 Fourth St, Bldg 1, Unit E
Passaic, New Jersey
Zip 07055
Phone: 800-434-4610
Fax: 870-743-1908
east@claridgeproducts.com

NORTHEAST OFFICE
Architectural Sales
40 Buckley Lane
Bayville, New Jersey
Zip 08721
Phone: 732-281-8849
Fax: 732-608-0547
mmanna@claridgenortheast.com

MIDWEST DIVISION
Sales & Distribution
923 North State Street
Elgin, Illinois
Zip 60123
Phone: 847-991-8822
Fax: 847-991-9057
mw@claridgeproducts.com

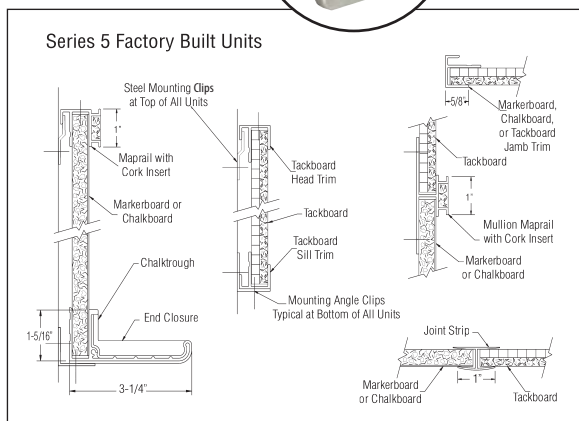
MICHIGAN OFFICE
Architectural Sales
6689 Orchard Lake Road #277
West Bloomfield, Michigan
Zip 48322
Phone: 248-535-1136
Fax: 248-714-4860
ceil@claridgemichigan.com

SOUTH CENTRAL DIVISION
Sales & Distribution
3241 Garden Brook
Farmers Branch, Texas
Zip 75234
Phone: 972-247-8075
Fax: 972-484-8149
sc@claridgeproducts.com



SERIES 5

- Perimeter trim is 5/8" wide.
- Furnished with steel mounting clips at top and angle clips at bottom, 2' on center.



Factory Built Units

Features:

- Porcelain enamel steel markerboards and chalkboards
- Claridge Cork, Fabricork, Designer Fabric, Hook-Fab, and Tan Nucork Tackboards
- Satin anodize aluminum frame
- Maximum length, 16'0"; maximum height - Type A and Type CO units - 4'0"
- O.A. panel thickness approx. 1/2"
- LCS³ Markerboards are GREENGUARD Certified

Options:

- Color anodize or powder coat finish aluminum frames
- Radius corners available, Series 4 units

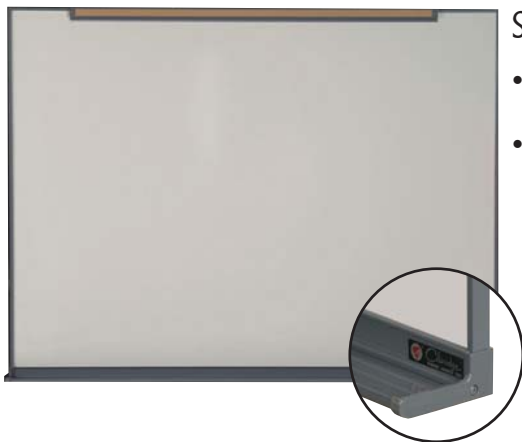
Finished size of units is 1/4" larger in height and width than sizes listed. If exact overall size is required, specify when ordering.

Installation using 16A adhesive is recommended. Screws or wall anchors are not included.

Freight class 70.

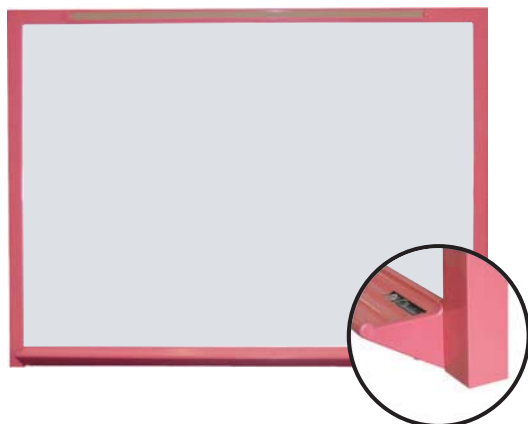
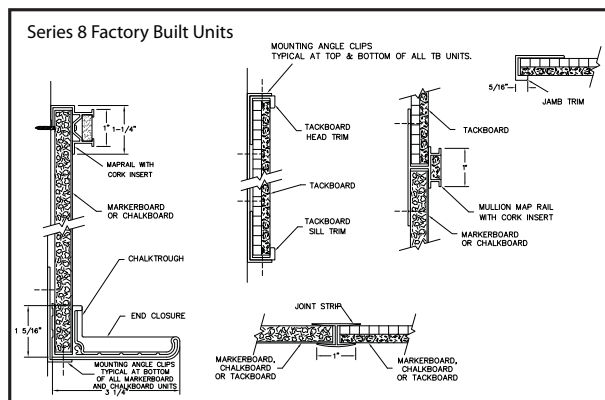
Visit www.claridgeproducts.com for CAD library and specifications.

Standard Whiteboard



SERIES 8

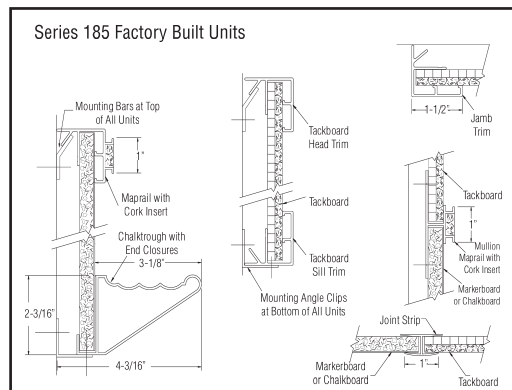
- Perimeter trim is 5/16" wide.
- Type A units have screw-through map rail at top; angle clips for bottom. Type CO and Combos – angle clips, 2' on center, top and bottom.



SERIES 185

- Perimeter trim is 1-1/2" wide.
- Furnished with Z-bar clips for top and angle clips for bottom, 2' on center.

Note: Necessary 12" square, 1/2" Duracore blocking pads are furnished.



LCS³ Markerboards

- Porcelain enamel steel markerboards provide a sustainable, ultra-smooth and lifetime-warranted surface that is scratch, stain and bacteria resistant
- Available in three colors, LCS³ can be used as a projection surface; accepts magnetic aids
- Specially formulated porcelain surface is fused to enameling grade steel in accordance with Performance Specifications established by the Porcelain Enamel Institute
- The resulting porcelain surface is GREENGUARD™, Cradle-to-Cradle™ and SCS Indoor Advantage™ certified

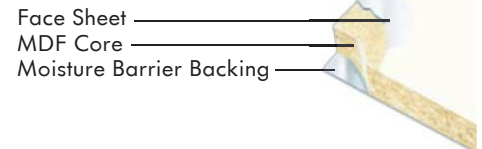
Markerboards are guaranteed to withstand the rigors of everyday use and offer superior writeability, erasability and interactive performance.

Porcelain Chalkboard Surfaces

- Porcelain enamel steel chalkboard surface carries a Life of the Building writing surface warranty; available in three colors
- Writing surface has high resistance to impact damage, abrasion, scratching and fading
- Matte finish provides maximum contrast for heightened visibility; surface erases clean and retains minimal chalk dust

Porcelain chalkboards provide a super smooth writing surface that erases like magic and will not scratch, stain or fade.

LCS-217-M No. 100 LCS³ Low-Gloss White Markerboard



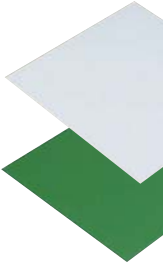
Markerboard and Chalkboard Face Sheets (Skins)

- Converts old defective boards into permanent new markerboards or chalkboards of superior quality – boards that will provide many years of service
- Steel skins can be applied on the face of natural slate, composition chalkboard, or slated plaster walls
- Sheets are shipped precut to customers' specifications
- Skins can be installed by qualified installer using commercial adhesive, in accordance with local building codes

The most practical and economical way to rejuvenate old chalkboards is to install steel skins over existing old, badly worn chalkboards.

LCS³ Porcelain Enamel Steel Markerboard Skins – 3 colors

Porcelain Enamel Steel Chalkboard Skins – 3 colors



EZ Stick Skins

- Measure to verify fit, clean old board surface, position EZ Stick Skin, peel and stick - it's that easy
- EZ Stick Skin installations use no solvents, eliminate drying time and are always a consistent thickness
- Face sheets are shipped precut to customers' specifications

LCS porcelain enamel steel skins backed with double-sided tape make resurfacing existing boards a breeze.



EZ Fit Panels

- EZ Fit panels are LCS porcelain enamel steel mounted on Medium Density Fiberboard (MDF) core with a moisture barrier back
- Panels have ½" wide face satin anodize aluminum frame
- Holes are pre-drilled 2' on center; 1" self-tapping screws included

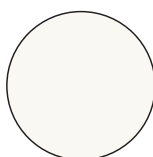
EZ Fit Panels are designed to install over existing boards - no need to remove old boards.



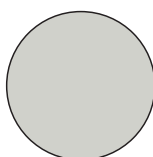
Markerboard and Chalkboard Colors

LCS³ (use with LCS markers)

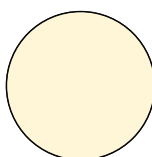
Porcelain Chalkboard (use with chalk)



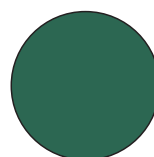
100 WHITE



101 LIGHT GRAY



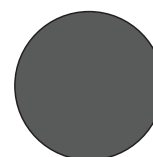
102 BEIGE



500 NP GREEN



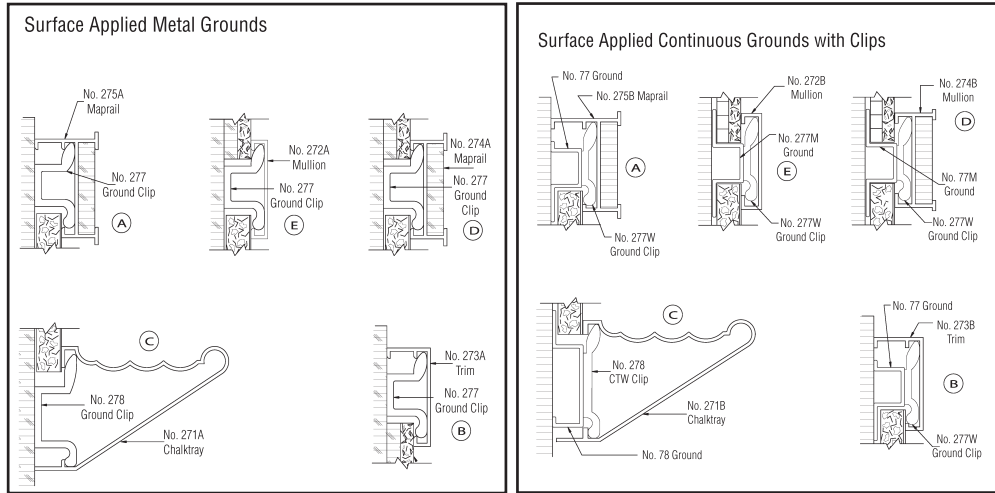
501 NP BLACK



502 NP GRAY

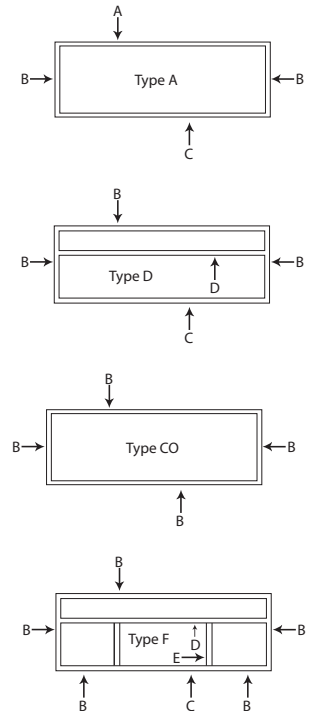
Trim A Type

Snap-On Aluminum Trim Detail

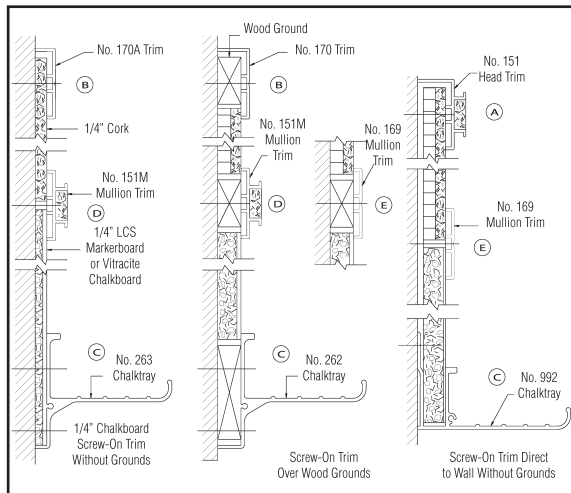


The most versatile of the field assembled trims, snap-on trim, with its wide face and no visible fasteners, adjusts to job conditions and joins in a neat, precision fit.

Trim Elevations



Screw-On Aluminum Trim Detail



Screw-on aluminum trim, with exposed fasteners, is noted for ease of installation.

Snap-On, Screw-On, and Slip-On aluminum trim is typically furnished in stock lengths to be cut to size and applied in the field.

#803 Divider for whiteboard span

Divider Bars, Channel Trim & Angle Trim

Divider Bars

Number	Opening	Face	Stock Lengths
803	1/4"	1/2"	12'6"
803A	1/2"	1/2"	12'6"
803F	1/2"	1"	12'6" and 17'0"

Divider bars weigh approximately 1/4 lb. per lin. ft. Shipped by motor freight. Use freight class 85.

Channel Trim

Number	Opening	Face	Stock Lengths
804	1/4"	1/2"	17'0"
1067	1/2"	5/8"	12'6" and 17'0"

Channel trim weighs approximately 1/4 lb. per lin. ft. 8'0" and 8'6" lengths can ship UPS or Fed Ex Ground. Balance of lengths will be shipped motor freight. Use freight class 85.

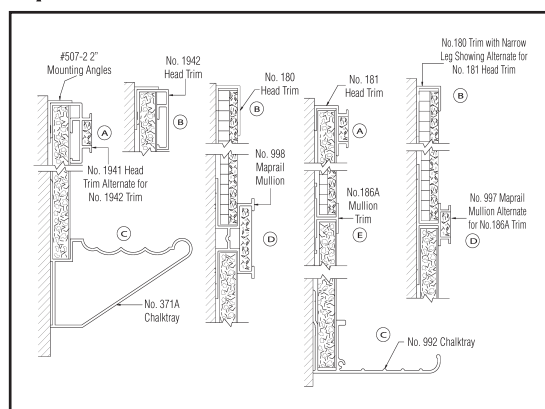
Angle Trim

Number	Description	Stock Lengths
160	1" x 1" x 1/16" angle trim	12'6"
161	1" x 1/2" x 1/16" angle trim	12'6"
162	1" x 1" x 1/8" angle trim	12'6"

No. 160 and No. 161 angle trim weighs approx. 1/4 lb. per lin. ft. No. 162 weighs 1/3 lb.

Angle trim is shipped by motor freight. Use freight class 85.

Slip-On Aluminum Trim Detail



The narrow face of slip-on trim gives it a clean, low-profile appearance.

Specification Information

10 11 00/CLC

GENERAL

DESCRIPTION OF WORK

Section Includes:

1. Porcelain enamel chalkboards
2. Porcelain enamel markerboards
3. Tackboards and accessories

Related Sections:

1. Marker Walls and Tack Walls
2. Vertical and Horizontal Sliding Units
3. Glass Markerboards
4. Interactive Markerboards
5. Directories
6. Display Casework

REFERENCED STANDARDS

- A. ASTM-E 84
- B. ASTM B221
- C. PEI-1002

SUBMITTALS

- A. Shop Drawings: Provide shop drawings for each type of visual display board required.
- B. Product Data: Provide technical data for materials specified. Include Material Safety Data Sheets, when applicable.
- C. Samples:
 1. Manufacturer's color charts
 2. Composition samples of face, core, backing material and trim to illustrate finish, color and texture.

OPERATION & MAINTENANCE

Include data on regular cleaning, stain removal, and precautions

REGULATORY REQUIREMENTS

Conform to applicable code for flame/smoke rating in tackboards in accordance with ASTM-E 84.

QUALITY ASSURANCE

Provide items in this section as manufactured by: Claridge Products and Equipment, Inc. LCS porcelain writing surface is GREENGUARD and GREENGUARD GOLD certified.

FIELD CONDITIONS

Field measure prior to preparation of shop drawings and fabrication to ensure proper fit.

WARRANTY

Submit "Life of the Building" warranty, stating that under normal usage and maintenance, and when installed in accordance with manufacturer's instructions and recommendations, Claridge porcelain enamel steel chalkboard and markerboard writing surfaces are guaranteed for the life of the building. Guarantee covers replacement of defective boards but does not include removal or reinstallation cost.

PRODUCTS

MANUFACTURERS

Visual display boards - chalkboards, markerboards, and tackboards - as manufactured by: Claridge Products & Equipment, Inc., Harrison, Arkansas 72602

MATERIALS

- A. All visual display boards shall be Series _____ (architect to select from Series 1, 3, 4, 5, 8 or 185) factory laminated and factory framed chalkboards, markerboards or tackboards.
- B. Porcelain enamel Markerboards/Chalkboards: All porcelain enamel markerboards and chalkboards shall be manufactured in accordance with the Porcelain Enamel Institute's specifications. The steel surface is pre-cleaned to ensure complete bond between the steel and the porcelain surface.
 1. LCS³ Markerboard and Porcelain Chalkboard: Made from cold-rolled steel, during a 3-coat process both steel surfaces receive a ground coat of porcelain enamel. Then, a color cover coat of porcelain is applied to one surface of the ground coat and is fusion bonded to the steel substrate at temperature necessary to reduce steel and porcelain stresses.
 - a. Face Sheet: LCS³ or Porcelain Chalkboard
 - b. Core Material: 7/16" Medium Density Fiberboard (MDF)
 - c. Backing: Moisture barrier back
 2. Laminations: Shall be hot-type neoprene contact adhesive applied to both surfaces automatically. Each substrate to have minimum of 80% covering with 1.5-2.0 dry mils of adhesive. Panel components shall have uniform pressure applied mechanically over entire area. Laminations shall be made by face sheet manufacturer.
 3. Sizes: Standard height is 4 feet (5' steel optional.) Porcelain markerboards and chalkboards shall be available in single piece lengths up to 16 feet.
- C. Tackboards: Architect to select from tackboards composed of 1/4" thick self-healing, burlap backed Claridge cork; Fabriccork vinyl fabric on cork underlay; Hook-Fab fabric on cork underlay; Designer polyester fabric on cork underlay; or 1/4" Tan Nucork, all on 1/4" hardboard backing.
- D. Metal Trim and Accessories: Provide Series _____ aluminum extrusions as manufactured by Claridge Products and Equipment, Inc. Trim shall be heavy gauge extruded aluminum and shall meet or exceed ASTM B221 Alloy Standards. Finish to be etched and anodized satin finish standard. Color Anodized and Powder Coat Paint finished trim optional.

Chalktray/Marker Tray: Standard continuous, solid type aluminum Chalk Tray/Marker Tray with ribbed section and injection molded end closures, or standard continuous hollow tray with injection molded end closures; metal end closures optional. Map Rail: Standard continuous 1" (2" optional) map rail with cork insert and end stops at the top of each chalkboard or markerboard, complete with the following accessories:

1. Map Hooks: Provide 2 map hooks for each map rail.
 2. Roller Brackets: Provide _____ per map rail.
 3. Flag Holder: Provide _____ per map rail.
- E. Colors: As selected from manufacturer's standard colors. Color charts on request.
 - F. Adhesive: As recommended by manufacturer.

FABRICATION

- A. Shop assembly: Provide factory assembled chalkboard, markerboard, and tackboard units, except where field assembled units are required.
 1. LCS³ Porcelain Enamel Steel Markerboards or Porcelain Enamel Steel Chalkboards
 - a. Face Sheet: Porcelain Enamel Steel
 - b. Core: 7/16" MDF
 - c. Backing: Moisture barrier back
 2. Claridge Cork Tackboards
 - a. Face Sheet: 1/4" cork
 - b. Binder: burlap
 - c. Backing: 1/4" hardboard

EXECUTION

PROJECT CONDITIONS

- A. Verify before installation that interior moisture and temperature approximate normal occupied conditions.
- B. Verify that wall surfaces are prepared and ready to receive boards.

INSTALLATION

- A. Deliver factory built units completely assembled in one piece without joints wherever possible. Where dimensions exceed panel size, provide 2 or more pieces of equal length as acceptable

at the factory, disassemble for delivery, and make final joints at the job site. Use H-bar at joints to maintain alignment.

- B. Follow manufacturer's instructions for storage and handling of units before installation.
- C. Install level and plumb, keeping perimeter trim straight in accordance with manufacturer's recommendations.

ADJUST AND CLEAN

- A. Verify that all required accessories are installed for each unit.
- B. At completion of work, clean

surfaces and trim in accordance with manufacturer's recommendations, leaving all materials ready for use.

See www.claridgeproducts.com for complete specifications and CAD library.