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OJAI UNIFIED SCHOOL DISTRICT

BID ADDENDUM NO. 3 ISSUED **1/31/2019**

TO THE CONTRACT DOCUMENTS, SPECIFICATIONS AND PLANS FOR OJAI UNIFIED SCHOOL DISTRICT

GYMNASIUM REROOF AND LOCKER ROOM REMODEL
AT MATILIJA JUNIOR HIGH SCHOOL
PROJECT NO. 2018-1602

THE BIDDER SHALL ATTACH THE ADDENDUM TO THE DOCUMENTS SUBMITTED WITH THE BID TO OJAI UNIFIED SCHOOL DISTRICT TO CERTIFY THAT THE BID ADDENDUM INFORMATION WAS RECEIVED.

BID DUE DATE: 10:00 am (local) Thursday, February 7, 2019 (revised)

The following additions, modifications, corrections, deletions and clarifications are hereby made to the Contract Documents of the subject Project and constitute **Addendum Number 3**. This Addendum is hereby incorporated into the contract documents by reference.

I. RESPONSES TO REQUESTS FOR INFORMATION

No.	QUESTION	RESPONSE	RESPONSE BY
1	Plan P-100, note #33, calls for us to rebuild all of the new water closet and urinal flush valves 30 days after startup. Never seen this before but I will include costs for this unless I hear otherwise.	This is to be included in the project. The intent is to make sure there is no debris inside the valves at the end of the project.	AE Group Mechanical Engineers
2	The Uneven Pairs #102A, #111A, #119, #121 all call for Hardware Group #1.0. These are all exterior pairs of HM Doors & Frames. The hardware schedule for #1.0 does	Door Hardware specification revised to replace ball catch with IVES FB51P and DP2. See revised specification section.	RNT Architects

	not include any locking device(s) for the Inactive Leaf of the pair. All it shows is the Ives #349 Ball Catch, which is not really a lock. These need some kind of locking device like Surface Bolts of Flush Bolts. Please advise.		
3	Specification 088000-3.7.A Insulating Glass Schedule shows the energy requirements for the exterior aluminum windows. The U-Factor and SHGC on lines 6 and 7 cannot be met using the “Clear” 6 mm Tempered Glass called out for. The glass will require a LowE coating and likely a tint as well to meet these energy specs. Please advise.	Specification revised to include low-e coating.	RNT Architects
4	There is no specification for the Wood Doors. Please ask for that to be provided.	Specification Section 081416 provided for Flush Wood Doors	RNT Architects
5	Existing cold water, hot water, hot water return and gas lines are run exposed below the locker room ceiling. a. Is it acceptable to run new water and gas lines exposed below the ceiling? b. Will we be required to paint the exposed lines to match the ceiling?	This is correct. New water and gas lines are to be exposed below ceiling and painted. No penetrations in the roof framing will be required.	RNT Architects
6	When will the hazardous materials survey be provided?	A comprehensive test is underway. For now the information available to the district at this time is provided as part of this Addendum.	District

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II. GENERAL INFORMATION

A. Contract Documents

No Change.

III. REVISED SPECIFICATIONS AND DRAWINGS

A. Specifications – All Projects

Item 1 Cut sheet with revised installation instructions for Garland White Star polyurea coating attached.

Item 2 Specification **Section 016400 Owner Furnished Materials** included in Specifications.

Item 3 Specification **Section 081416 Flush Wood Doors** included in Specifications.

Item 4 Specification **Section 087100 Door Hardware** revised in response to RFI 2 above.

Item 5 Specification **Section 088000 Glazing** revised in response to RFI 3 above.

Item 6 Specification **Section 092900 Gypsum Board** revised as marked.

Item 7 Specification **Section 092900 Ceramic Tiling** revised as marked.

Item 8 Specification **Section 099123 Interior Painting** included in Specifications.

B. Drawings

Item 9 D-103 – LOCKER ROOM DEMOLITION FLOOR PLAN – removed incorrect locker demolition reference.

Item 10 Corrections to graphical indication of extent of tile installation:

- A-103
- A-210
- A-501
- A-502

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Item 11 AD-101 – WALL TYPE DETAILS – Corrected references to '3/16" PORCELAIN TILE' to coordinate with Specification and read '3/8" PORCELAIN TILE'.

Item 12 AD-111 DETAIL 14 – Coordinated with tile and mortar bed thickness.

END OF **BID ADDENDUM NO. 3** ISSUED **1/31/2019**

Table 1: Asbestos Sample Results – Matilija Jr. HS Gym & Locker Rooms*

Sample ID	Sample Type	Sample Location	% Asbestos in Material (PLM) ND= none detected	Comment
ASB-1	**Roofing Mastic**	**North Roof (gym)**	**Black Mastic = 10%**	Category 1, non-friable
ASB-2	Roof Pitch Single	North Roof	ND	
ASB-3	Roof Cap with Base	North Roof	ND	
ASB -4	Roofing Hot Mop	North Roof	ND	
ASB -5	Roof Cap Sheet	South Roof	ND	
ASB -6	**Roofing Mastic**	**South Roof (lockers)**	**Black Mastic = 10%**	Category 1, non-friable
ASB -7	**Roofing Felts and Mastics**	**South Roof**	Black Tar = ND **Black Felt = 75%** **Black Mastic = 10%** Paint = ND	Category 1, non-friable
ASB -8	**Roofing Mastic**	**South Roof**	**Black Mastic = 10%** Off-White Plaster = ND	Category 1, non-friable
ASB -9	**Roofing Mastic**	**South Roof**	Black Tar = ND Black Felt = ND **Black Mastic = 10%**	Category 1, non-friable
ASB -10	**Roofing Mastic**	**South Roof**	**Black Mastic = 10%** **Silver Paint = 7%**	Category 1, non-friable
ASB -11	**Roofing Felt**	**South Roof**	Black Felt = ND **Black Mastic = 10%**	Category 1, non-friable
ASB –12	Exterior Building Paper Felt	Above Boy's Locker Room	ND	
ASB –13	Exterior Stucco	South Side	ND	
ASB –14	Exterior Stucco	North Side	ND	
ASB –15	Exterior Stucco	East Side	ND	
ASB –16	Acoustical Tile	Gym	ND	
ASB –17	Ceiling Tile Mastic	North Equipment Room	ND	
ASB-18	Ceiling Tile Mastic	North Gym Storage Room	ND	
ASB-19	Window Putty	Boy's Locker Room – East wall	ND	
ASB-20	Window Putty	Boy's Locker Room – South wall	ND	
ASB-21	Window Putty	Boy's Shower Room – South Wall	ND	
ASB-22	Window Putty	Boy's Locker Room – South wall	ND	
ASB-23	Plaster	Boy's Locker Room	ND	
ASB-24	Button Board	Boy's Locker Room	ND	
ASB-25	**Plaster**	**Boy's Locker Room**	White Plaster = ND Beige Plaster = ND Paint = ND White Non-fibrous layer = ND **Yellow Semi-fibrous layer = 5%**	Category 1, non-friable
ASB-26	Tile Lathe	Boy's Restroom – West Wall	ND	
ASB-27	**Texture Coat**	**Boy's Locker Room – Southwest Corner**	**Multi-layered Paints = 2%** Off-White Non-fibrous Layer=ND	Category 1, non-friable
ASB-28	**Texture Coat**	**Boy's Locker Room – Northeast Corner**	Paint = ND **Yellow Semi-fibrous Material = 5%**	Category 1, non-friable
ASB-29	**Texture Coat**	**Boy's Locker Room – South Wall**	**Multi-layered Paints = 2%** Off-White Non-fibrous layer = ND	Category 1, non-friable
ASB-30	Drywall Joint Compound	Boy's Locker Room – South Wall	Drywall & Mud = ND	
ASB-31	Window Putty	Girl's Locker Room – South Wall	ND	

Sample ID	Sample Type	Sample Location	% Asbestos in Material (PLM) ND= none detected	Comment
ASB-32	**Window Putty**	**Equipment Room – North Side**	**Grey Putty = 2%** Paint = ND	Category II, non-friable
ASB-33	**Window Putty**	**North Side**	**Grey Putty = 2%** Paint = ND	Category II, non-friable
ASB-34	Plaster	Girl's Locker Room – South Wall	ND	
ASB-35	Plaster	Girl's Locker Room – South Wall	ND	
ASB-36	Plaster	Girl's Locker Room – East Wall	ND	
ASB-37	**Texture Coat**	**Girl's Restroom**	Paint = ND Off-White Non-fibrous layer = ND **Yellow Semi-fibrous layer = 5%**	Category II, non-friable
ASB-38	Texture Coat	Girl's Locker Room	ND	
ASB-39	**Texture Coat**	**Girl's Locker Room**	Paint = ND Off-White Non-fibrous Material = ND **Yellow Semi-fibrous layer = 5%**	Category II, non-friable
ASB-40	**Roofing Mastic**	**South Roof**	**Black Mastic = 10%**	Category I, non-friable
All asbestos is chrysotile type unless otherwise noted. **Taken from 2004 survey conducted by Criterion Environmental, Inc.* *See below for definitions and terms found in this table.*				

Summary: The following materials were sampled and identified as containing asbestos above the federal definition of 1% by weight:

- **Roofing Felts:** The roofing felt tested positive only on the south roof over the locker rooms. The main gym roofing felt tested negative. This is a Category I, non-friable material.

- **Roofing Mastics:** The roofing mastics used to seal around penetrations and patching is asbestos containing on both the north and south roof. This is a Category I, non-friable material.

- **Window Putty:** The window putty found on the north side of the building and in the equipment/storage room is asbestos containing. This is a Category II, non-friable material.

- **Yellow Texture Coat:** The texture coat found over interior plaster in the girls and boys locker rooms is asbestos containing. This is a Category II, non-friable material. However, disturbance of this material may cause it to become friable during demolition or renovation activities.

Notes on Tables and Assessment Terms:

- Asbestos containing material (ACM): Federal and County APCD regulations define ACM as any material or product that contains more than 1% asbestos.
- Asbestos containing construction material (ACCM): State regulations define ACCM as any material with greater than 0.1% asbestos by weight.
- Asbestos renovation: Defined by NESHAPS as the removal of more than 160 square feet or 260 linear feet of ACM. OSHA requires registration of all contractors removing more than 100 sq. ft. on any project.
- Friable ACM: any ACM that when dry can be crumbled, pulverized, or reduced to powder by normal hand pressure.

- Non-friable ACM: any ACM that **cannot** be reduced to powder by normal hand pressure.
- Category I non-friable ACM: asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products (typically pliable materials, including sealants and mastics).
- Category II non-friable ACM: any other ACM that when dry **cannot** be reduced to powder by hand pressure (typically non-pliable/cementitious materials).
- Regulated Asbestos Containing Material (RACM): any *friable* ACM that will be removed during a renovation of a regulated structure. ACM that will become friable due to the removal technique is also regulated. Note: while linoleum flooring is considered Category II ACM while managed in place, removal *always* renders it friable.
- Presumed Asbestos Containing Materials (PACM): This designation is for those materials which are normally asbestos containing but were not sampled due to access issues or potential for irreparable damage. This typically includes transite (asbestos cement) piping or sheeting, or HVAC insulation materials in walls, under floors, etc. where destructive testing is not recommended. Regulations allow asbestos inspectors to "presume" that these materials contain asbestos without laboratory data based on the inspector's experience and knowledge of building materials.

White-Star™

since 1895

OVERVIEW & FEATURES

White-Star is a multi-purpose, single-component, aliphatic, polyurea liquid adhesive designed to protect and preserve new or aged smooth or mineral roof systems from the damaging effects of UV exposure.

White-Star, combined with white marble roofing aggregate or white reflective roofing minerals, provides a superior surfacing system that meets the requirements of California's Title 24 Energy Efficiency Standards.

Energy Efficient- Provides added UV protection to prolong the life of the roof, greatly reducing thermal shock while helping maintain internal temperatures and reducing cooling costs.

Waterproofing Protection - White-Star systems will provide 32 wet mils (28 dry mils), without gravel, of additional waterproofing protection to an existing roof system. This process will effectively extend the life of the roof system.

Adds Tensile Strength to Standard Applications - White-Star offers performance qualities that are greatly superior to conventional asphalt flood coats. The chemical properties of White-Star create a tough and durable surface that will increase the life of a roof system.

User Friendly - The ease of application makes White-Star extremely fast and simple to install. This superior adhesive can be used to protect and restore an entire roofing system. White-Star can be applied by spray, roller or squeegee.

APPLICATION

Restoration Overview - Ensure that all wet insulation is removed. An infrared scan is highly recommended. Remove all dirt, dust and debris from the roof surface. Make any necessary repairs, and also verify that all repairs are
securely bonded.

All-Knight™/All-Stallion™ Primer is required over all new cold process BUR/modified asphalt systems and over existing systems. Apply primer at a rate of 1/2 - 1 gallon per square prior to application of the White-Star system.

Application for Gravel Surfaces - Spray or roll 2 gallons (32 wet mils) of White-Star per 100 sq. ft. (.82 l/m^2). Then, apply new white gravel into the wet White-Star.

Application for Mineral Surfaces - Spray or roll 2 gallons (32 wet mils) of White-Star per 100 sq. ft. (.82 l/m^2) on all seams. Allow White-Star to cure fully, approximately 24 hours. Then apply 2 gallons (32 wet mils) of White-Star per 100 sq. ft. (.82 l/m^2) on roof surface. Finally, broadcast white roofing minerals into wet White-Star.

Application Technique for Title 24 Compliant Installations- To meet Title 24 standards, you must spray or roll 1 gallon per 100 sq. ft. (.41 l/m^2) then embed 3/8" white gravel into the wet adhesive. If using mineral, first coat the seams and allow to cure before coating with 1 gallon per 100 sq. ft. (.41 l/m^2) and broadcasting white roofing mineral into the wet adhesive. Wait 24 hours to cure and then spray or roll another 1 gallon per 100 sq. ft. (.41 l/m^2) of White-Star over the surface locking the gravel or mineral into place.

Coverage - Apply White-Star at a rate of 2 gallons per 100 sq. ft. (.82 l/m^2). For gravel surfaces, broadcast 200 lbs. per 100 sq. ft. of gravel or 35 lbs. per 100 sq. ft. of roofing mineral. Slopes are restricted to 3:12 maximum. For a Class "A" fire rating, the slopes are restricted to 2:12 maximum.

If White-Star is damaged, it can be repaired by removing the gravel and then cleaning the surface with M.E.K. and recoating with White-Star and gravel.

PRECAUTIONS

- Do not apply when temperatures are below 40˚F (4.4˚C) or if rain is in the forecast within 48 hours. Spray application is not recommended below 50˚F (10˚C)
- Do not apply over wet surfaces. Please read product label and SDS.
- Do not apply White-Star at a coverage rate higher than 2 gallons per 100 sq. ft. (.82 l/m^2) within a 24 hour period. Excessive product can cause air bubbles in the product application.
- Do not apply over BUR/modified coal tar systems.
- Open containers may develop a skin; remove skin and the rest of the material will be useable.

White-Star™

Technical Data	White-Star
Tensile Strength (ASTM D 412)	2300-2600 psi
Tear Resistance (ASTM D 624)	230-280 lbs./in.
Elongation (ASTM D 412)	250-300%
Density @ 77°F (25°C) (ASTM D 2939)	10.14 lbs./gal (.984 g/cm^3)
Flash Point (ASTM D 93)	120°F (48°C) min.
Non-Volatile (ASTM D 75)	Typical 89%
Viscosity @ 77°F (25°C); 20 rpm (ASTM D 2196) Brookfield RVT, #4 Spindle	3500-5000 cP
Cure Time (@ 75°F)	24 hours minimum
Coverage	2 gal/100 sq. ft. (.82 l/m^2)
Shelf Life	1 Year
Wet Film Thickness @ 2 gal. (7.5 l) per square	32 mils (812.8 microns)
Packaging	55 gallon drum (208.2 l) 5 gallon pail (18.9 l)

Eco-Facts	White-Star Adhesive	White-Star Surfacing System
VOC	130 g/l	130 g/l
Reflectance	0.89	0.72
Emittance	0.89	0.93
SRI	112	89

Garland Greenhouse

CRRC RATED PRODUCT

INTERTEK Warnock Hersey C US

FM APPROVED

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Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. A ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or Garland Corporate Office for more information.

SECTION 016400 - OWNER FURNISHED PRODUCTS

1 GENERAL

1.1 SUMMARY

A. DESCRIPTION: The Owner shall procure and provide certain products for installation as shown and specified per Contract Documents for projects listed below:
1. Matilija Junior High School (PROJ#03-118467)

B. RELATED WORK SPECIFIED ELSEWHERE:

1. General: Products furnished and paid for by the Owner are described in the following technical sections and /or in the Drawings.

2. DISTRICT SUPPLIED MATERIAL
Note that this project includes the installation of owner-supplied material; the District has acquired roofing material through the CMAS (California Multiple Award Schedules) program.

1.2 DEFINITIONS

A. GENERAL: The following are used to identify products as noted on the Drawings.

B. OWNER FURNISHED CONTRACTOR INSTALLED (O.F.C.I.): Products or equipment furnished by the Owner for installation under this contract.

C. OWNER FURNISHED OWNER INSTALLED (O.F.O.I.): Products or equipment to be provided and installed by the Owner, but requiring surfacing, backing, utility connections or other preparation under this contract, for proper installation.

D. NOT IN CONTRACT (N.I.C.): Products or equipment to be provided and installed by Owner, not requiring surfacing, backing, utility connections or other preparation under this contract.

2 PRODUCTS

2.1 PRODUCTS

A. ROOFING MATERIAL FURNISHED BY OWNER (O.F.C.I.): District supplied material through the CMAS (California Multiple Award Schedules) program. Related specification sections include;
1. Section 071143 Standing Seam Metal Roof Panels

B. MATERIAL LIST

Listed in the Tables below is a list of district provided material. Any material or accessories required for the installation of the roof system in excess of the district provided material must be supplied by the Contractor. It is up to the Contractor to determine the precise amount of material required for the completion of this project; and to provide excess material, as required. The cost to handle and break flashing metal from the District provided flat stock is contractor's responsibility.

TABLE 1. ROOFING MATERIAL OWNER FURNISHED CONTRACTOR INSTALLED (O.F.C.I)
MATILIJA JUNIOR HIGH SCHOOL(PROJ#2018-1608 BUILDINGS C, D, F

Material	Product Name	Product Code	Quantity Supplied by District	Coverage
Metal Coil	24 GA 18" Colonial Red R-Mer Span Coil	Coil	9,000 SF	See Data Sheet and Spec

3 EXECUTION

3.1 OWNER'S RESPONSIBILITIES

A. SUBMITTALS: Arrange for and deliver necessary shop drawings, product data and samples to Contractor.

B. DELIVERY:

1. General: Arrange and pay for product delivery to site, in accordance with construction schedule.

2. Bill of Materials: Deliver supplier's documentation to Contractor.

3. Inspection: Inspect jointly with Contractor.

4. Claims: Submit for transportation damage and replacement of otherwise damaged, defective, or missing items.

C. GUARANTEES: Arrange for manufacturer's warranties, bonds, service, inspections, as required.

3.2 CONTRACTOR'S RESPONSIBILITIES

A. SUBMITTALS: Review shop drawings, product data and samples and submit to Architect with notification of any discrepancies or problems anticipated in use of product.

B. DELIVERY:

1. General: Designate delivery date for each product in Progress Schedule.

2. Receiving: Receive and unload products at site. Handle products at site, including uncrating and storage.

3. Inspection: Promptly inspect products jointly with Owner; record shortages, damaged or defective items.

4. Storage: Protect products from damage or exposure to elements.

C. INSTALLATION:

1. General: Assemble, install, connect, adjust and finish products, as stipulated in the respective section of Specifications.

2. Repair and Replacement: Items damaged during handling and installation.

END OF SECTION

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SECTION 081416 - FLUSH WOOD DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Solid-core doors with MDO faces.
2. Shop priming flush wood doors.
3. Factory fitting flush wood doors to frames and factory machining for hardware.

B. Related Requirements:
1. Section 099123 "Interior Painting for field finishing doors.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of door. Include details of core and edge construction and trim for openings.

B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; and the following:

1. Dimensions and locations of blocking.
2. Dimensions and locations of mortises and holes for hardware.
3. Dimensions and locations of cutouts.
4. Undercuts.

1.5 INFORMATIONAL SUBMITTALS

A. Sample Warranty: For special warranty.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Comply with requirements of referenced standard and manufacturer's written instructions.

B. Package doors individually in cardboard cartons and wrap bundles of doors in plastic sheeting.

C. Mark each door on top rail with opening number used on Shop Drawings.

1.7 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during remainder of construction period.

1.8 WARRANTY

A. A. Special Warranty: Manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Warping (bow, cup, or twist) more than 1/4 inch (6.4 mm) in a 42-by-84-inch (1067-by-2134-mm) section.
b. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch (0.25 mm in a 76.2-mm) span.

2. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
3. Warranty Period for Solid-Core Interior Doors: Life of installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Graham Wood Doors (Assa Abloy)

B. Mohawk Flush Doors, Inc.

C. Or equal.

D. Source Limitations: Obtain flush wood doors from single manufacturer.

2.2 FLUSH WOOD DOORS, GENERAL

A. Quality Standard: In addition to requirements specified, comply with WDMA I.S.1-A, "Architectural Wood Flush Doors."

B. WDMA I.S.1-A Performance Grade:

1. Heavy Duty unless otherwise indicated.

C. Particleboard-Core Doors:

1. Particleboard: ANSI A208.1, Grade LD-2.
2. Blocking: Provide wood blocking in particleboard-core doors as follows:

   a. 5-inch (125-mm) top-rail blocking, in doors indicated to have closers.
   b. 5-inch (125-mm) bottom-rail blocking, in exterior doors and doors indicated to have kick, mop, or armor plates.

3. Provide doors with glued-wood-stave or structural-composite-lumber cores instead of particleboard cores for doors indicated to receive exit devices.

2.3 DOORS FOR OPAQUE FINISH

A. Interior Solid-Core Doors:

1. Grade: Premium.
2. Faces: MDO.

   a. Apply MDO directly to high-density hardboard crossbands.

3. Exposed Vertical Edges: Any closed-grain hardwood.
4. Core: Particleboard.
5. Construction: Five plies. Stiles and rails are bonded to core, then entire unit is abrasive

2.4 FABRICATION

A. Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.

B. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame Shop Drawings, BHMA-156.115-W, and hardware templates.

2.5 SHOP PRIMING

A. Doors for Opaque Finish: Shop prime faces, all four edges, edges of cutouts, and mortises with one coat of wood primer specified in Section 099123" Interior Painting."

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine doors and installed door frames, with Installer present, before hanging doors.

1. Verify that installed frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs.

2. Reject doors with defects.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Hardware: For installation, see Section 087100 "Door Hardware.

B. Installation Instructions: Install doors to comply with manufacturer's written instructions and referenced quality standard, and as indicated.

C. Job-Fitted Doors: Align and fit doors in frames with uniform clearances and bevels as indicated below; do not trim stiles and rails in excess of limits set by manufacturer or permitted for fire-rated doors. Machine doors for hardware. Seal edges of doors, edges of cutouts, and mortises after fitting and machining.

1. Clearances: Provide 1/8 inch (3.2 mm) at heads, jambs, and between pairs of doors. Provide 1/8 inch (3.2 mm) from bottom of door to top of decorative floor finish or covering unless otherwise indicated. Where threshold is shown or scheduled, provide1/4 inch (6.4 mm) from bottom of door to top of threshold unless otherwise indicated.

D. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.

3.3 ADJUSTING

A. Operation: Rehang or replace doors that do not swing or operate freely.

B. Finished Doors: Replace doors that are damaged or that do not comply with requirements. Doors may be repaired or refinished if Work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION 081416

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Mechanical door hardware for the following:

a. Swinging doors.

B. Related Requirements:
1. Section 081113 "Hollow Metal Doors and Frames.
2. Section 284621.11 "Addressable Fire-Alarm Systems" for connections to building fire-alarm system.

1.3 COORDINATION

A. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

B. Security: Coordinate installation of door hardware, keying, and access control with Owner's maintenance staff.

C. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Conference participants shall include Installer's Architectural Hardware Consultant and Owner's maintenance team representative.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For electrified door hardware.

1. Include diagrams for power, signal, and control wiring.
2. Include details of interface of electrified door hardware and building safety and security systems.

C. Samples: For each exposed product in each finish specified, in manufacturer's standard size.

1. Tag Samples with full product description to coordinate Samples with door hardware schedule.

D. Samples for Initial Selection: For each type of exposed finish.

E. Samples for Verification: For each type of exposed product, in each finish specified.

1. Sample Size: Full-size units or minimum 2-by-4-inch (51-by-102-mm) Samples for sheet and 4-inch (102-mm) long Samples for other products.

a. Full-size Samples will be returned to Contractor. Units that are acceptable and remain undamaged through submittal, review, and field comparison process may, after final check of operation, be incorporated into the Work, within limitations of keying requirements.

2. Tag Samples with full product description to coordinate Samples with door hardware schedule.

F. Door Hardware Schedule: Prepared by or under the supervision of Installer's Architectural Hardware Consultant. Coordinate door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Submittal Sequence: Submit door hardware schedule concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate the fabrication of other work that is critical in Project construction schedule.
2. Format: Use same scheduling sequence and format as in door hardware schedule in the Contract Documents.
3. Content: Include the following information:

a. Identification number, location, hand, fire rating, size, and material of each door and frame.
b. Locations of each door hardware set, cross-referenced to Drawings on floor plans and to door and frame schedule.

c. Complete designations, including name and manufacturer, type, style, function, size, quantity, function, and finish of each door hardware product.
d. Description of electrified door hardware sequences of operation and interfaces with other building control systems.
e. Fastenings and other installation information.
f. Explanation of abbreviations, symbols, and designations contained in door hardware schedule.
g. Mounting locations for door hardware.
h. List of related door devices specified in other Sections for each door and frame.

G. Keying Schedule: Prepared by the Owner’s maintenance team representative under the supervision of Installer's Architectural Hardware Consultant, detailing Owner's final keying instructions for locks. Include schematic keying diagram and index each key set to unique door designations that are coordinated with the Contract Documents.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

1. Complies with listed fire-rated door assemblies.

B. Product Test Reports: For compliance with accessibility requirements, for tests performed by manufacturer and witnessed by a qualified testing agency, for door hardware on doors located in accessible routes.

C. Sample Warranty: For special warranty.

1.7 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of door hardware to include in maintenance manuals.

B. Schedules: Final door hardware and keying schedule.

1.8 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1.9 QUALITY ASSURANCE

A. Installer Qualifications: Supplier of products and an employer of workers trained and approved by product manufacturers and of an Architectural Hardware Consultant who is available during the course of the Work to consult Contractor, Architect, and Owner about door hardware and keying.

1. Warehousing Facilities: In Project's vicinity.
2. Scheduling Responsibility: Preparation of door hardware and keying schedule.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for door hardware delivered to Project site.

B. Tag each item or package separately with identification coordinated with the final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.

C. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including excessive deflection, cracking, or breakage.
b. Faulty operation of doors and door hardware.
c. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use.

2. Warranty Period: Three years from date of Substantial Completion unless otherwise indicated below:
a. Exit Devices: Two years from date of Substantial Completion.
b. Manual Closers: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain each type of door hardware from single manufacturer.
1. Provide the Owner’s standard mechanical hardware and accessories or mechanical hardware and accessories compatible with the Owner’s standard.

2.2 PERFORMANCE REQUIREMENTS

A. Means of Egress Doors: Latches do not require more than 15 lbf (67 N) to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.

B. Accessibility Requirements: For door hardware on doors in an accessible route, comply with California Building Code Chapter 11B.

1. Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf (22.2 N).
2. Comply with the following maximum opening-force requirements:

a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf (22.2 N) applied perpendicular to door.

3. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than 1/2 inch (13 mm) high.
4. Adjust door closer sweep periods so that, from an open position of 90 degrees, the door will take at least 5 seconds to move to a position of 12 degrees from the latch.
5. Operable hardware mounted between 38" and 44" from finished floor.

2.3 SCHEDULED DOOR HARDWARE

A. Provide products for each door that comply with requirements indicated in Part 2 and door hardware schedule.

1. Door hardware is scheduled in Part 3.

2.4 HINGES

A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles as specified in the Door Hardware Sets.
1. Quantity: Provide the following hinge quantity, unless otherwise indicated:
   a. Two Hinges: For doors with heights up to 60 inches.
   b. Three Hinges: For doors with heights 61 to 90 inches.
   c. Four Hinges: For doors with heights 91 to 120 inches.
   d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
   a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
   b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
   a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
   b. Interior Standard Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
4. Hinge Options: Comply with the following where indicated in the Hardware Sets or on Drawings:
   a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for all out-swinging lockable doors.
5. Acceptable Manufacturers:
   a. Hager Companies (HA).
   b. Ives (IV).
   c. McKinney Products (MK).

2.5 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) year experience designing secured master key systems and have on record a published security keying system policy.

1. Facility Standard:
   a. Schlage (SC).

B. Cylinders: Original manufacturer cylinders complying with the following:

1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
5. Keyway: Match Facility Standard.

C. Keying System: Each type of lock and cylinders to be factory keyed.

1. Conduct specified "Keying Conference" to define and document keying system instructions and requirements.
2. Nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. Existing System:

   a. Master key or grand master key locks to Owner's existing system.

D. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Three (3)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys: Ten (10).

E. Construction Keying: Provide construction master keyed cylinders.

F. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 MECHANICAL LOCKS AND LATCHES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Facility Standard:

    a. Schlage (SC) – L9000 Series.

B. Cylindrical Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.2, Series 4000, Grade 1 certified.

1. Furnish with solid cast levers, standard 2 3/4” backset, and 1/2" (3/4" at rated paired openings) throw brass or stainless steel latchbolt.
2. Locks are to be non-handed and fully field reversible.
3. Facility Standard:

    a. Schlage (SC) – ND Series.

C. Cylindrical Locksets, Grade 2 (Standard Duty): ANSI/BHMA A156.2, Series 4000, Grade 2 certified.

1. Locks are to be non-handed and fully field reversible.
2. Facility Standard:

    a. Schlage (SC) - AL Series.

2.7 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip 7/8” LTC Strikes: For locks used with door pair equipped with over-lapping astragal.
2. Wood Frames Strikes: Extended lip to clear applied wood trim.
3. Hollow Metal Frames Strikes: Wrought box, 4-7/8” x 1-1/4” lip.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.8 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.

2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the push-bar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
5. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
   a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
   b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
6. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
8. Rail Sizing: Provide exit device rails factory sized for proper door width application.
9. Through Bolt Installation: For exit devices and trim, furnish with SNB's.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 certified panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets.
   1. Acceptable Manufacturers:

      a. Von Duprin (VD) - 35A/98 Series.

2.9 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

   1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized smooth covers (without grooves) and include installation and adjusting information on inside of cover.

   2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

   3. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL.

   4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with CBC Chapter 11B.

5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.

6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.

7. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Commercial Duty): ANSI/BHMA 156.4, Grade 1 certified surface mounted, door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable back-check, closing sweep, and latch speed control valves. Provide non-handed units standard.

1. Facility Standard:

a. LCN (LCN) - 4010 Series.

2.10 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.

2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

3. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:

a. Stainless Steel: .050-inch thick.

4. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes (CSK) and four beveled edges (4BE).

5. Acceptable Manufacturers:

a. Rockwood Manufacturing (RO).
b. Trimco (TC).

2.11 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Acceptable Manufacturers:

   a. Rockwood Manufacturing (RO).
   b. Trimco (TC).

2.12 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Acceptable Manufacturers:

1. Pemko Manufacturing (PE).
2. Zero (ZE).

2.13 ACCESSORIES FOR PAIRS OF DOORS

A. Coordinators: BHMA A156.3; consisting of active-leaf, hold-open lever and inactive-leaf release trigger; fabricated from steel with nylon-coated strike plates; with built-in, adjustable safety release.

B. Carry-Open Bars: BHMA A156.3; prevent the inactive leaf from opening before the active leaf; provide polished brass or bronze carry-open bars with strike plate for inactive leaves of pairs of doors unless automatic or self-latching bolts are used.

C. Astragals: BHMA A156.22.

2.14 FABRICATION

A. Manufacturer's Nameplate: Do not provide products that have manufacturer's name or trade name displayed in a visible location except in conjunction with required fire-rating labels and as otherwise approved by Architect.

1. Manufacturer's identification is permitted on rim of lock cylinders only.

B. Base Metals: Produce door hardware units of base metal indicated, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A156.18.

C. Fasteners: Provide door hardware manufactured to comply with published templates prepared for machine, wood, and sheet metal screws. Provide screws that comply with commercially recognized industry standards for application intended, except aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware unless otherwise indicated.

1. Concealed Fasteners: For door hardware units that are exposed when door is closed, except for units already specified with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed unless it is the only means of securely attaching the door hardware. Where through bolts are used on hollow door and frame construction, provide sleeves for each through bolt.
2. Fire-Rated Applications:

    a. Wood or Machine Screws: For the following:

        1) Hinges mortised to doors or frames; use threaded-to-the-head wood screws for wood doors and frames.
        2) Strike plates to frames.
        3) Closers to doors and frames.

    b. Steel Through Bolts: For the following unless door blocking is provided:

        1) Surface hinges to doors.
        2) Closers to doors and frames.
        3) Surface-mounted exit devices.

3. Spacers or Sex Bolts: For through bolting of hollow-metal doors.
4. Gasketing Fasteners: Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

2.15 FINISHES

A. Provide finishes complying with BHMA A156.18 as indicated in door hardware schedule.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance of the Work.

B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Mounting Heights: Mount door hardware units at heights to comply with the following unless otherwise indicated or required to comply with governing regulations.

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
3. Installation height shall comply with CBC Chapter 11B "Accessibility" with operable hardware mounted between 38" and 44" from finished floor.
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

B. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work. Do not install surface-mounted items until finishes have been completed on substrates involved.

1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

C. Hinges: Install types and in quantities indicated in door hardware schedule, but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

D. Intermediate Offset Pivots: Where offset pivots are indicated, provide intermediate offset pivots in quantities indicated in door hardware schedule, but not fewer than one intermediate offset pivot per door and one additional intermediate offset pivot for every 30 inches (750 mm) of door height greater than 90 inches (2286 mm).

E. Lock Cylinders: Install construction cores to secure building and areas during construction period.

1. Replace construction cores with permanent cores as indicated in keying schedule.
2. Furnish permanent cores to Owner for installation.

F. Key Control System:

1. Key Control Cabinet: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
2. Key Lock Boxes: Install where indicated or approved by Architect to provide controlled access for fire and medical emergency personnel.
3. Key Control System Software: Set up multiple-index system based on final keying schedule.

G. Thresholds: Set thresholds for exterior doors and other doors indicated in full bed of sealant complying with requirements specified in Section 079200 "Joint Sealants."

H. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they will impede traffic.

I. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

1. Do not notch perimeter gasketing to install other surface-applied hardware.

J. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

K. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

3.4 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

1. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

3.5 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items as necessary to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure that door hardware is without damage or deterioration at time of Substantial Completion.

3.6 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

3.7 DOOR HARDWARE SCHEDULE

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. RO - Rockwood
2. SC - Schlage
3. VD - Von Duprin
4. LCN - LCN
5. TC - Trimco
6. MC - McKinney
7. HA - Hager Companies
8. IV - Ives

Set: 1.0

Description: Exterior Metal Door Pair (PH)

2	Hinge	T4A3386 NRP 5" x 4-1/2"	630	MK
1	Exit	9875L		LCN
1	Mortise Lock	L9076 P 17L	626	SC
1	Surface Closer	4010	690	LCN
1	Kick Plate	K1050 10" high 4BE CSK	630	RO
1	Door Stop	1209HAHO	630	TR
1	Threshold	2727	A	PE
1	Gasketing	332DS TKSP8		PE
1	Sweep	29326CNB TKSP8		PE
1	**Constant Latching Flush Bolt**	**FB51P**	**626**	**IV**
1	**Dust Proof Strike**	**DP2**	**626**	**IV**

Set: 1.1

Description: Exterior Metal Door Single (PH)

3	Hinge	T4A3386 NRP 5" x 4-1/2"	630	MK
1	Exit	9875L		LCN
1	Mortise Lock	L9076 P 17L	626	SC
1	Surface Closer	4010	690	LCN
1	Kick Plate	K1050 10" high 4BE CSK	630	RO
1	Door Stop	1209HAHO	630	TR
1	Threshold	2727	A	PE
1	Gasketing	332DS TKSP8		PE
1	Sweep	29326CNB TKSP8		PE

Set: 2.0

Description: Interior Wood Door Restroom

3 Hinge	TA2714 4-1/2" x 4-1/2"	US10B	MK
1 Cylindrical Privacy Lock	AL40S NEP	626	SC
1 Kick Plate	K1050 10" high 4BE CSK	US10BE	RO
1 OH Concealed Stop	OH201M	630	RO
1 Threshold	272D MSES25		PE

Set: 3.0

Description: Interior Wood Door Mechanical

6	Hinge	TA2714 4-1/2" x 4-1/2"	US10B	MK
1	Cylindrical Office Lock	AL80 P D NEP	626	SC
2	Kick Plate	K1050 10" high 4BE CSK	US10BE	RO
1	Ball Catch	349	626	IV

Set: 4.0

Description: Exterior Metal Door Maintenance

3	Hinge	T4A3386 NRP 5" x 4-1/2"	630	MK
1	Cylinder Lock	AL80 P D NEP	626	SC
1	Hold Open and Stop	OH903H	630	RO
1	Threshold	2727	A	PE
1	Gasketing	332DS TKSP8		PE
1	Sweep	29326DNB TKSP8		PE

END OF SECTION 087100

SECTION 088000 - GLAZING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes:

1. Glass for windows, doors, interior borrowed lites.
2. Glazing sealants and accessories.

1.3 DEFINITIONS

A. Glass Manufacturers: Firms that produce primary glass, fabricated glass, or both, as defined in referenced glazing publications.

B. Glass Thicknesses: Indicated by thickness designations in millimeters according to ASTM C 1036.

C. CBC: California Building Code.

D. Interspace: Space between lites of an insulating-glass unit.

1.4 COORDINATION

A. Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.

1.5 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
2. Review temporary protection requirements for glazing during and after installation.

1.6 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.7 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturers of insulating-glass units with sputter-coated, low-E coatings.

B. Product Certificates: For glass.

C. Product Test Reports: For coated glass, insulating glass, and glazing sealants, for tests performed by a qualified testing agency.

D. Preconstruction adhesion and compatibility test report.

E. Sample Warranties: For special warranties.

1.8 QUALITY ASSURANCE

A. Manufacturer Qualifications for Insulating-Glass Units with Sputter-Coated, Low-E Coatings: A qualified insulating-glass manufacturer who is approved by coated-glass manufacturer.

B. Installer Qualifications: A qualified installer who employs glass installers for this Project who are certified under the National Glass Association's Certified Glass Installer Program.

1.9 PRECONSTRUCTION TESTING

A. Preconstruction Adhesion and Compatibility Testing: Test each glass product, tape sealant, gasket, glazing accessory, and glass-framing member for adhesion to and compatibility with elastomeric glazing sealants.

1. Testing is not required if data are submitted based on previous testing of current sealant products and glazing materials matching those submitted.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Protect glazing materials according to manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.

B. Comply with insulating-glass manufacturer's written instructions for venting and sealing units to avoid hermetic seal ruptures due to altitude change.

1.11 FIELD CONDITIONS

A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.

1. Do not install glazing sealants when ambient and substrate temperature conditions are outside limits permitted by sealant manufacturer or are below 40 deg F (4.4 deg C).

1.12 WARRANTY

A. Manufacturer's Special Warranty for Coated-Glass Products: Manufacturer agrees to replace coated-glass units that deteriorate within specified warranty period. Deterioration of coated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning coated glass contrary to manufacturer's written instructions. Defects include peeling, cracking, and other indications of deterioration in coating.

1. Warranty Period: 10 years from date of Substantial Completion.

B. Manufacturer's Special Warranty for Insulating Glass: Manufacturer agrees to replace insulating-glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations for Glass: Obtain from single source from single manufacturer for each glass type.

B. Source Limitations for Glazing Accessories: Obtain from single source from single manufacturer for each product and installation method.

2.2 PERFORMANCE REQUIREMENTS

A. General: Installed glazing systems shall withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

1. Design Wind Pressures: As indicated on Drawings.
2. Differential Shading: Design glass to resist thermal stresses induced by differential shading within individual glass lites.

B. Safety Glazing: Where safety glazing is indicated, provide glazing that complies with 16 CFR 1201, Category II.

C. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
1. For insulating-glass units, properties are based on units of thickness indicated for overall unit and for each lite.
2. U-Factors: Center-of-glazing values, according to NFRC 100 and based on LBL's WINDOW 5.2 computer program, expressed as Btu/sq. ft. x h x deg F (W/sq. m x K).
3. Solar Heat-Gain Coefficient and Visible Transmittance: Center-of-glazing values, according to NFRC 200 and based on LBL's WINDOW 5.2 computer program.
4. Visible Reflectance: Center-of-glazing values, according to NFRC 300.

2.3 GLASS PRODUCTS, GENERAL

A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below unless more stringent requirements are indicated. See these publications for glazing terms not otherwise defined in this Section or in referenced standards.

B. Safety Glazing Labeling: Where safety glazing is indicated, permanently mark glazing with certification label of the SGCC. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.

C. Insulating-Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of IGCC.

D. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass that complies with performance requirements and is not less than the thickness indicated.

1. Minimum Glass Thickness for Exterior Lites: 6 mm.

E. Strength: Where annealed float glass is indicated, provide annealed float glass, heat-strengthened float glass, or fully tempered float glass. Where heat-strengthened float glass is indicated, provide heat-strengthened float glass or fully tempered float glass. Where fully tempered float glass is indicated, provide fully tempered float glass.

2.4 GLASS PRODUCTS

A. Clear Annealed Float Glass: ASTM C 1036, Type I, Class 1 (clear), Quality-Q3.

B. Fully Tempered Float Glass: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated) unless otherwise indicated, Type I, Class 1 (clear) or Class 2 (tinted) as indicated, Quality-Q3.

C. Heat-Strengthened Float Glass: ASTM C 1048, Kind HS (heat strengthened), Type I, Condition A (uncoated) unless otherwise indicated, Type I, Class 1 (clear) or Class 2 (tinted) as indicated, Quality-Q3.

2.5 INSULATING GLASS

A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E 2190.

1. Sealing System: Dual seal, with manufacturer's standard primary and secondary sealants.
2. Perimeter Spacer: Manufacturer's standard spacer material and construction.

3. Desiccant: Molecular sieve or silica gel, or a blend of both.

2.6 GLAZING SEALANTS

A. General:

1. Compatibility: Compatible with one another and with other materials they contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.

B. Glazing Sealant: Neutral-curing silicone glazing sealant complying with ASTM C 920, Type S, Grade NS, Class 100/50, Use NT.

2.7 MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, with requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.

C. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.

D. Spacers: Elastomeric blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.

E. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).

2.8 FABRICATION OF GLAZING UNITS

A. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.

1. Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.

a. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:

1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
2. Presence and functioning of weep systems.
3. Minimum required face and edge clearances.
4. Effective sealing between joints of glass-framing members.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.

B. Examine glazing units to locate exterior and interior surfaces. Label or mark units as needed so that exterior and interior surfaces are readily identifiable. Do not use materials that leave visible marks in the completed Work.

3.3 GLAZING, GENERAL

A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.

B. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass includes glass with edge

damage or other imperfections that, when installed, could weaken glass, impair performance, or impair appearance.

C. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.

D. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.

E. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.

F. Provide spacers for glass lites where length plus width is larger than 50 inches (1270 mm).

1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
2. Provide 1/8-inch (3-mm) minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.

G. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.

H. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.

I. Set glass lites with proper orientation so that coatings face exterior or interior as specified.

3.4 GASKET GLAZING (DRY)

A. Cut compression gaskets to lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.

B. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.

C. Installation with Drive-in Wedge Gaskets: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.

D. Installation with Pressure-Glazing Stops: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket. Install dense compression gaskets and pressure-glazing stops, applying pressure uniformly to compression gaskets. Compress gaskets to

produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.

E. Install gaskets so they protrude past face of glazing stops.

3.5 CLEANING AND PROTECTION

A. Immediately after installation remove nonpermanent labels and clean surfaces.

B. Protect glass from contact with contaminating substances resulting from construction operations. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains.

1. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer. Remove and replace glass that cannot be cleaned without damage to coatings.

C. Remove and replace glass that is damaged during construction period.

D. Wash glass on both exposed surfaces not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

3.6 MONOLITHIC GLASS SCHEDULE

A. Glass Type: Clear fully tempered float glass.

1. Minimum Thickness: 6 mm.
2. Safety glazing required.

3.7 INSULATING GLASS SCHEDULE

A. Glass Type: Low-E-coated, clear insulating glass.
1. Overall Unit Thickness: 1 inch (25 mm).
2. Minimum Thickness of Each Glass Lite: 6 mm.
3. Outdoor Lite: Fully tempered float glass.
4. Interspace Content: Argon.
5. Indoor Lite: Fully tempered float glass.
6. Low-E Coating: Pyrolytic on second surface.
7. U-Factor: 0.36 maximum.
8. Visible Light Transmittance: 60 percent minimum.
9. Solar Heat Gain Coefficient: 0.28 maximum.
10. Safety glazing required.

END OF SECTION 088000

SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Interior gypsum board.
2. Tile backing panels.
3. Texture finishes.

B. Related Requirements:

1. Section 061600 "Sheathing" for gypsum sheathing for exterior walls.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.4 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.5 FIELD CONDITIONS

A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.

B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.

C. Do not install panels that are wet, moisture damaged, and mold damaged.

1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.

2.2 GYPSUM BOARD, GENERAL

A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

A. Gypsum Wallboard: ASTM C 1396/C 1396M.
   1. Thickness: As indicated else 5/8 inch.
   2. Long Edges: Tapered.

B. Gypsum Ceiling Board: ASTM C 1396/C 1396M.
   1. Thickness: As indicated.
   2. Long Edges: Tapered.

2.4 SPECIALTY GYPSUM BOARD

A. Glass-Mat Interior Gypsum Board: ASTM C 1658/C 1658M. With fiberglass mat laminated to both sides. Specifically designed for interior use**.**
   1. Core: As indicated, else 5/8 inch (15.9 mm) abuse resistant.
   2. Long Edges: Tapered.
   3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

2.5 TILE BACKING PANELS

A. Glass-Mat, Water-Resistant Backing Board: ASTM C 1178/C 1178M, with manufacturer's standard edges.
   1. Core: As indicated on Drawings.
   2. Surfacing: Coated fiberglass mat on face, back, and long edges.
   3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.
   4. Microbial Growth Resistance: ASTM D6329, will not support microbial growth.
   5. Permeance: ASTM E96, not more than 1.0 perms when tiled.

2.6 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.

1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized-steel sheet.
2. Shapes:

    a. Cornerbead.
    b. Bullnose bead.
    c. LC-Bead: J-shaped; exposed long flange receives joint compound.
    d. L-Bead: L-shaped; exposed long flange receives joint compound.
    e. U-Bead: J-shaped; exposed short flange does not receive joint compound.
    f. Curved-Edge Cornerbead: With notched or flexible flanges.

2.7 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475/C 475M.

B. Joint Tape:

1. Interior Gypsum Board: Paper.
2. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
3. Tile Backing Panels: As recommended by panel manufacturer.

C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.

1. Prefilling: At open joints and damaged surface areas, use setting-type taping compound.
2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.

    a. Use setting-type compound for installing paper-faced metal trim accessories.

3. Fill Coat: For second coat, use setting-type, sandable topping compound.
4. Finish Coat: For third coat, use setting-type, sandable topping compound.
5. Skim Coat: For final coat of Level 5 finish, use setting-type, sandable topping compound.

D. Joint Compound for Exterior Applications:
1. Glass-Mat Gypsum Sheathing Board: As recommended by sheathing board manufacturer.

E. Joint Compound for Tile Backing Panels:

1. Glass-Mat, Water-Resistant Backing Panel: As recommended by backing panel manufacturer.

2.8 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.

B. Steel Drill Screws: ASTM C 1002 unless otherwise indicated.

C. Thermal Insulation: As specified in Section 072100 "Thermal Insulation."

D. Vapor Retarder: As specified in Section 072600 "Vapor Retarders."

2.9 TEXTURE FINISHES

A. Primer: As recommended by textured finish manufacturer.

B. Aggregate Finish: Water-based, job-mixed, aggregated, drying-type texture finish for spray application.
   1. Texture: Light spatter.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and substrates including welded hollow-metal frames and support framing, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.

B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

A. Comply with ASTM C 840.

B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.

C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch (1.5 mm) of open space between panels. Do not force into place.

D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.

E. Form control and expansion joints with space between edges of adjoining gypsum panels.

F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.

1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. (0.7 sq. m) in area.
2. Fit gypsum panels around ducts, pipes, and conduits.
3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- (6.4- to 9.5-mm-) wide joints to install sealant.

G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch- (6.4- to 12.7-mm-) wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.

H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

I. Wood Framing: Install gypsum panels over wood framing, with floating internal corner construction. Do not attach gypsum panels across the flat grain of wide-dimension lumber, including floor joists and headers. Float gypsum panels over these members or provide control joints to counteract wood shrinkage.

J. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and with manufacturer's written instructions for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.

K. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

3.3 APPLYING INTERIOR GYPSUM BOARD

A. Install interior gypsum board in the following locations:

1. Wallboard Type:Vertical surfaces unless otherwise indicated.
2. Ceiling Type: Ceiling surface where indicated.
3. Glass-Mat Interior Type: As indicated on Drawings.

B. Single-Layer Application:

1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
2. On partitions/walls, apply gypsum panels vertically (parallel to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.

    a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
3. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

3.4 APPLYING TILE BACKING PANELS

A. Glass-Mat, Water-Resistant Backing Panels: Comply with manufacturer's written installation instructions and install at locations indicated to receive tile]. Install with 1/4-inch (6.4-mm) gap where panels abut other construction or penetrations.

B. Where tile backing panels abut other types of panels in same plane, shim surfaces to produce a uniform plane across panel surfaces.

3.5 INSTALLING TRIM ACCESSORIES

A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.

B. Interior Trim: Install in the following locations:

1. Cornerbead: Use at outside corners.
2. LC-Bead: Use at exposed panel edges.

3.6 FINISHING GYPSUM BOARD

A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.

B. Prefill open joints and damaged surface areas.

C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.

D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:

1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
2. Level 2: Panels that are substrate for tile or acoustical panels.
3. Level 3: In maintenance and mechanical or electrical rooms.
4. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.

    a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."

5. Level 5: Where indicated on Drawings.

    a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."

E. Glass-Mat Faced Panels: Finish according to manufacturer's written instructions.

F. Cementitious Backer Units: Finish according to manufacturer's written instructions.

3.7 APPLYING TEXTURE FINISHES

A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Apply primer to surfaces that are clean, dry, and smooth.

B. Texture Finish Application: Mix and apply finish using powered spray equipment, to produce a uniform texture matching approved mockup and free of starved spots or other evidence of thin application or of application patterns.

C. Prevent texture finishes from coming into contact with surfaces not indicated to receive texture finish by covering them with masking agents, polyethylene film, or other means. If, despite these precautions, texture finishes contact these surfaces, immediately remove droppings and overspray to prevent damage according to texture-finish manufacturer's written instructions.

3.8 PROTECTION

A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.

B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.

C. Remove and replace panels that are wet, moisture damaged, and mold damaged.

1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 092900

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SECTION 093013 - CERAMIC TILING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Porcelain tile.
   2. Tile backing panels.
   3. Waterproof membrane.

B. Related Requirements:
   1. Section 079200 "Joint Sealants" for sealing of expansion, contraction, control, and isolation joints in tile surfaces.
   2. Section 092400 "Cement Plastering" for scratch coat for thickset mortar setting-bed installations.
   3. Section 092900 "Gypsum Board" for **glass-mat, water-resistant backer board**.

1.3 DEFINITIONS

A. General: Definitions in the ANSI A108 series of tile installation standards and in ANSI A137.1 apply to Work of this Section unless otherwise specified.

B. ANSI A108 Series: ANSI A108.01, ANSI A108.02, ANSI A108.1A, ANSI A108.1B, ANSI A108.1C, ANSI A108.4, ANSI A108.5, ANSI A108.6, ANSI A108.8, ANSI A108.9, ANSI A108.10, ANSI A108.11, ANSI A108.12, ANSI A108.13, ANSI A108.14, ANSI A108.15, ANSI A108.16, and ANSI A108.17, which are contained in its "Specifications for Installation of Ceramic Tile."

C. Module Size: Actual tile size plus joint width indicated.

D. Face Size: Actual tile size, excluding spacer lugs.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at **Project site**.

   1. Review requirements in ANSI A108.01 for substrates and for preparation by other trades.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples for Initial Selection: For tile, grout, and accessories involving color selection.

C. Samples for Verification:
1. Assembled samples mounted on a rigid panel, with grouted joints, for each type and composition of tile and for each color and finish required. Make samples at least **12 inches (300 mm) square**, but not fewer than four tiles. Use grout of type and in color or colors approved for completed Work.
2. Full-size units of each type of trim and accessory **for each color and finish required**.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Certificates: For each type of product.

C. Product Test Reports: For tile-setting and -grouting products **and certified porcelain tile**.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match and are from same production runs as products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Tile and Trim Units: Furnish quantity of full-size units equal to 3 percent of amount installed for each type, composition, color, pattern, and size indicated.

2. Grout: Furnish quantity of grout equal to 3 percent of amount installed for each type, composition, and color indicated.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.

B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.

C. Store aggregates where grading and other required characteristics can be maintained and contamination can be avoided.

D. Store liquid materials in unopened containers and protected from freezing.

1.9 FIELD CONDITIONS

A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations for Tile: Obtain **tile of each type and color or finish** from single source or producer.

1. Obtain tile of each type and color or finish from same production run and of consistent quality in appearance and physical properties for each contiguous area.

B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from single manufacturer and each aggregate from single source or producer.

1. Obtain setting and grouting materials, except for unmodified Portland cement and aggregate, from single manufacturer.
2. Obtain **waterproof membrane**, except for sheet products, from manufacturer of setting and grouting materials.

C. Source Limitations for Other Products: Obtain each of the following products specified in this Section from a single manufacturer:
1. Waterproof membrane.
2. Backer units.

2.2 PRODUCTS, GENERAL

A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.

1. Provide tile complying with Standard grade requirements.

B. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI A108.02, ANSI standards referenced in other Part 2 articles, ANSI standards referenced by TCNA installation methods specified in tile installation schedules, and other requirements specified.

C. Factory Blending: For tile exhibiting color variations within ranges, blend tile in factory and package so tile units taken from one package show same range in colors as those taken from other packages and match approved Samples.

D. Mounting: For factory-mounted tile, provide back- or edge-mounted tile assemblies as standard with manufacturer unless otherwise indicated.

2.3 TILE PRODUCTS

A. Ceramic Tile Wall **(CT-1)** and Floor **(CT-2)** Porcelain tile.

1. Basis of Design: American Olean Theoretical and Theoretical Bold
2. Certification: Tile certified by the Porcelain Tile Certification Agency.
3. Module Size:
   a. Wall: 12 by 24 inches.
   b. Floor: 2 by 2 inches.
4. Face Size Variation: Rectified.
5. Thickness:
   a. Wall: 3/8 inch
   b. Floor: 1/4 inch.
6. Face: **Plain with square edges**.
7. Dynamic Coefficient of Friction: Not less than 0.42.
8. Tile Color, Glaze, and Pattern: **As selected by Architect from manufacturer's full range**.
9. Grout Color: **As selected by Architect from manufacturer's full range**.
10. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable **and matching characteristics of adjoining flat tile**. Provide shapes as follows, selected from manufacturer's standard shapes:
    a. Wainscot Cap: Surface bullnose, module size 3 by 12 inches.
    b. Internal Corners: Field-butted square corners.

2.4 THRESHOLDS

A. General: Fabricate to sizes and profiles indicated or required to provide transition between adjacent floor finishes.

2.5 WATERPROOF MEMBRANE

A. General: Manufacturer's standard product that complies with ANSI A118.10 and is recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer.

B. Fabric-Reinforced, Fluid-Applied Membrane: System consisting of liquid-latex rubber or elastomeric polymer and continuous fabric reinforcement.

C. Waterproofing and Tile-Setting Adhesive: One-part, fluid-applied product intended for use as both waterproofing and tile-setting adhesive in a two-step process.

2.6 SETTING MATERIALS

A. Portland Cement Mortar (Thickset) Installation Materials: ANSI A108.02.

1. Cleavage Membrane: Asphalt felt, ASTM D 226/D 226M, Type I (No. 15); or polyethylene sheeting, ASTM D 4397, 4.0 mils (0.1 mm) thick.

2. Latex Additive: **Manufacturer's standard** water emulsion, serving as replacement for part or all of gaging water, of type specifically recommended by latex-additive manufacturer for use with field-mixed portland cement and aggregate mortar bed.

B. Standard Dry-Set Mortar (Thinset): ANSI A118.1.

C. Modified Dry-Set Mortar (Thinset): ANSI A118.4.
1. For wall applications, provide mortar that complies with requirements for nonsagging mortar in addition to the other requirements in ANSI A118.4.

D. Medium-Bed, Modified Dry-Set Mortar: Comply with requirements in ANSI A118.4. Provide product that is approved by manufacturer for application thickness of **5/8 inch (16 mm)**.
1. For wall applications, provide mortar that complies with requirements for nonsagging mortar in addition to the other requirements in ANSI A118.4.

2.7 GROUT MATERIALS

A. Sand-Portland Cement Grout: ANSI A108.10, consisting of white or gray cement and white or colored aggregate as required to produce color indicated.

B. Standard Cement Grout: ANSI A118.6.

1. Wall: Unsanded grout.

2. Floor: Sanded grout.

C. Grout for Pregrouted Tile Sheets: Same product used in factory to pregrout tile sheets.

2.8 MISCELLANEOUS MATERIALS

A. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.

~~B. Vapor Retarder Membrane: Polyethylene sheeting, ASTM D 4397, 4.0 mils (0.1 mm) thick.~~

C. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.

D. Floor Sealer: Manufacturer's standard product for sealing grout joints and that does not change color or appearance of grout.

2.9 MIXING MORTARS AND GROUT

A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.

B. Add materials, water, and additives in accurate proportions.

C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

1. Verify that substrates for setting tile are firm; dry; clean; free of coatings that are incompatible with tile-setting materials, including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.
2. Verify that concrete substrates for tile floors installed with **bonded mortar bed or thinset mortar** comply with surface finish requirements in ANSI A108.01 for installations indicated.

    a. Verify that surfaces that received a steel trowel finish have been mechanically scarified.
    b. Verify that protrusions, bumps, and ridges have been removed by sanding or grinding.

3. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.
4. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with **thinset mortar** with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.

B. Where indicated, prepare substrates to receive waterproofing by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped 1/4 inch per foot (1:50) toward drains.

C. Blending: For tile exhibiting color variations, verify that tile has been factory blended and packaged so tile units taken from one package show same range of colors as those taken from other packages and match approved Samples. If not factory blended, either return to manufacturer or blend tiles at Project site before installing.

3.3 CERAMIC TILE INSTALLATION

A. Comply with TCNA's "Handbook for Ceramic, Glass, and Stone Tile Installation" for TCNA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 series "Specifications for Installation of Ceramic Tile" that are referenced in TCNA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.

1. For the following installations, follow procedures in the ANSI A108 series of tile installation standards for providing 95 percent mortar coverage:
a. Tile floors in wet areas.

B. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.

C. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.

D. Provide manufacturer's standard trim shapes where necessary to eliminate exposed tile edges.

E. Where accent tile differs in thickness from field tile, vary setting-bed thickness so that tiles are flush.

F. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.

1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.
2. Where adjoining tiles on floor, base, walls, or trim are specified or indicated to be same size, align joints.
3. Where tiles are specified or indicated to be whole integer multiples of adjoining tiles on floor, base, walls, or trim, align joints unless otherwise indicated.

G. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:
1. Porcelain Tile: 1/8 inch (6.4 mm).

H. Lay out tile wainscots to dimensions indicated or to next full tile beyond dimensions indicated.

I. Expansion Joints: Provide expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated. Form joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.

1. Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.

J. Floor Sealer: Apply floor sealer to grout joints in tile floors according to floor-sealer manufacturer's written instructions. As soon as floor sealer has penetrated grout joints, remove excess sealer and sealer from tile faces by wiping with soft cloth.

3.4 TILE BACKING PANEL INSTALLATION

A. Install panels and treat joints according to ANSI A108.11 and manufacturer's written instructions for type of application indicated. **Use modified dry-set mortar for bonding material unless otherwise directed in manufacturer's written instructions.**

3.5 WATERPROOFING INSTALLATION

A. Install waterproofing to comply with ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness that is bonded securely to substrate.

B. Allow waterproofing to cure and verify by testing that it is watertight before installing tile or setting materials over it.

3.6 ADJUSTING AND CLEANING

A. Remove and replace tile that is damaged or that does not match adjoining tile. Provide new matching units, installed as specified and in a manner to eliminate evidence of replacement.

B. Cleaning: On completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.

1. Remove grout residue from tile as soon as possible.
2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions but no sooner than 10 days after installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.

3.7 PROTECTION

A. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage, and wear. If recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile walls and floors.

B. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.

C. Before final inspection, remove protective coverings and rinse neutral protective cleaner from tile surfaces.

3.8 INTERIOR CERAMIC TILE INSTALLATION SCHEDULE

A. Interior Floor Installations, Concrete Subfloor:

1. Ceramic Tile Installation: TCNA F112 and **ANSI A108.1B**; cement mortar bed (thickset) bonded to concrete.

    a. Ceramic Tile Type: **CT-2**.
    b. Bond Coat for Cured-Bed Method: **Standard dry-set** mortar.
    c. Grout: **Standard sanded cement** grout.

B. Interior Wall Installations, Wood or Metal Studs or Furring:

1. Ceramic Tile Installation: TCNA W245; **medium-**set mortar on glass-mat, water-resistant gypsum backer board.

    a. Ceramic Tile Type: **CT-1**.
    b. Thinset Mortar: **Standard dry-set** mortar.
    c. Grout: **Standard unsanded cement** grout.

2. Ceramic Tile Installation at shower walls: TCNA B420; **medium-**set mortar on **waterproof membrane over coated glass-mat, water-resistant gypsum backer board**.

    a. Ceramic Tile Type: **CT-1**.
    b. Thinset Mortar: **Modified dry-set** mortar.
    c. Grout: **Standard unsanded cement** grout.

END OF SECTION 093013

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SECTION 099123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes surface preparation and the application of paint systems on **interior substrates.**

1.3 DEFINITIONS

A. MPI Gloss Level 1: Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.

B. MPI Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.

C. MPI Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.

D. MPI Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.

E. MPI Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.

F. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.

G. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product. Include preparation requirements and application instructions.

1. Include Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.
2. Indicate VOC content.

B. Samples for Initial Selection: For each type of topcoat product.

C. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.

1. Submit Samples on rigid backing, 8 inches (200 mm) square.
2. Apply coats on Samples in steps to show each coat required for system.
3. Label each coat of each Sample.
4. Label each Sample for location and application area.

D. Product List: Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules. Include color designations.

1.5 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials**, from the same product run,** that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Paint: **5** percent, but not less than **1 gal. (3.8 L)** of each material and color applied.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).

B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, **available products that may be incorporated into the Work include, but are not limited to products** listed in the Interior Painting Schedule for the paint category indicated.

2.2 PAINT, GENERAL

A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."

B. Material Compatibility:

1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.

C. Colors: **District Standard**.

2.3 SOURCE QUALITY CONTROL

A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:

1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
2. Testing agency will perform tests for compliance with product requirements.
3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
1. Wood: 15 percent.
2. Gypsum Board: 12 percent.

C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.

D. Plaster Substrates: Verify that plaster is fully cured.

E. Verify suitability of substrates, including surface conditions and compatibility, with existing finishes and primers.

F. Proceed with coating application only after unsatisfactory conditions have been corrected.

1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

D. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and areas where shop paint is abraded. Paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.

E. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

F. Wood Substrates:

1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
2. Sand surfaces that will be exposed to view, and dust off.
3. Prime edges, ends, faces, undersides, and backsides of wood.
4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."

1. Use applicators and techniques suited for paint and substrate indicated.
2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.

B. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

D. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:

1. Paint the following work where exposed in occupied spaces:

a. Equipment, including panelboards.
b. Uninsulated metal piping.
c. Uninsulated plastic piping.
d. Pipe hangers and supports.
e. Metal conduit.
f. Other items as directed by Architect.

3.4 FIELD QUALITY CONTROL

A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.

1. Contractor shall touch up and restore painted surfaces damaged by testing.
2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

A. Steel Substrates:

1. Institutional Low-Odor/VOC Latex System **MPI INT 5.1S**:

    a. Prime Coat: Primer, rust inhibitive, water based **MPI #107** unless factory primed.

    b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

    c. Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 3)**, MPI #145**.

    d. Topcoat at doors and frames: Latex, interior, institutional low odor/VOC, semi-gloss (MPI Gloss Level 5)**, MPI #147**.

B. Wood Substrates: Doors and wood board paneling.

1. Institutional Low-Odor/VOC Latex System **MPI INT 6.3V**:

    a. Prime Coat: Primer, latex, for interior wood**, MPI #39**.

    b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

    c. Topcoat wood board paneling: Latex, interior, institutional low odor/VOC (MPI Gloss Level 3)**, MPI #145**.

    d. Topcoat doors: Latex, interior, institutional low odor/VOC, semi-gloss (MPI Gloss Level 5)**, MPI #147**.

C. Gypsum Board **and Plaster**Substrates:

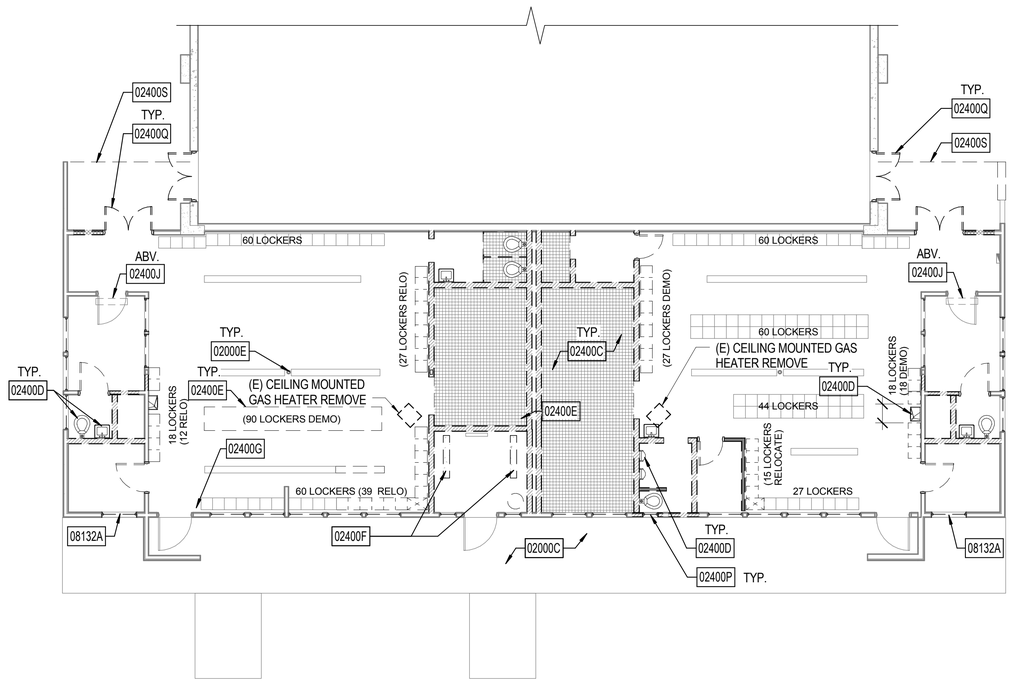
1. Institutional Low-Odor/VOC Latex System **MPI INT 9.2M**:

    a. Prime Coat: Primer sealer, interior, institutional low odor/VOC**, MPI #149**.

    b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.

    c. Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 3**), MPI #145**.

END OF SECTION 099123



2 DEMO PLAN
1/8" = 1'-0"

NORTH

SHEET GENERAL NOTES

1. ONLY DEMOLISH NON-STRUCTURAL BUILDING ELEMENTS OF INTERIOR SPACES INDICATED WITHIN THE RENOVATION SCOPE OF WORK.
2. RECORD DRAWINGS FOR EXISTING BUILDING ARE AVAILABLE. NO GUARANTEE IS MADE AS TO ACCURACY OF DRAWINGS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS.
3. NO LOAD BEARING WALL, SHEAR WALL, EXTERIOR WALL, WOOD/ STEEL POST SHALL BE REMOVED UNLESS THE LOCATION & DETAILS ARE SHOWN ON STRUCTURAL DRAWINGS.

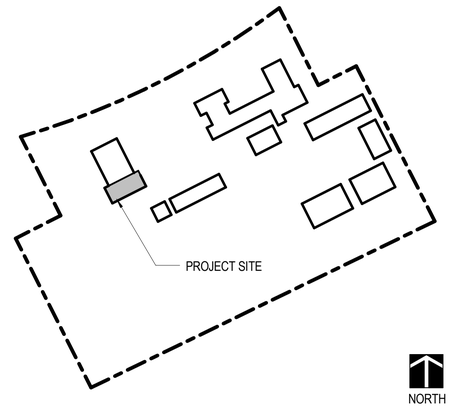
LEGEND

- (E) CONCRETE WALL
- (E) WALL
- DEMOLISH (E) WINDOW
- DEMOLISH EXISTING WALL
- DEMOLISH EXISTING LOAD BEARING WALL
- DEMOLISH ITEM
- (E) TILE FLOORING TO BE DEMOLISHED
- (E) ELECTRICAL PANEL, PROTECT IN PLACE

KEYNOTES

02000C	(E) CONCRETE WALKWAY, PROTECT IN PLACE
02000E	(E) STEEL COLUMN, PROTECT IN PLACE
02400C	DEMOLISH (E) FLOOR TILES
02400D	DEMOLISH (E) PLUMBING FIXTURE
02400E	DEMOLISH (E) CONCRETE LOCKER BASE. REMOVE AND STORE LOCKERS
02400F	DEMOLISH (E) CONCRETE BOILER SUPPORT WALL
02400G	DEMOLISH (E) PLASTER FINISH AND PLYWOOD SUBSTRATE WHERE WATER DAMAGE OCCURS
02400J	(E) FAN COIL UNIT, PROTECT IN PLACE
02400P	DEMOLISH (E) WINDOW
02400Q	DEMOLISH (E) DOOR
02400S	DEMOLISH (E) CONCRETE WALK
08132A	(E) WINDOW TO BE REMOVED & INFILLED

LOCATION MAP



NORTH

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LICENSED ARCHITECT
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STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
FILE NO. 56-20
03-118467
AC_____ FLS_____ SS_____
DATE_____

OJAI UNIFIED SCHOOL DISTRICT

MATILIJA JUNIOR HIGH SCHOOL GYM REROOFING AND LOCKER RM REMODEL

703 EL PASEO ROAD, OJAI, CA 93023

CONSTRUCTION DOCUMENTS

No.	Description	Date

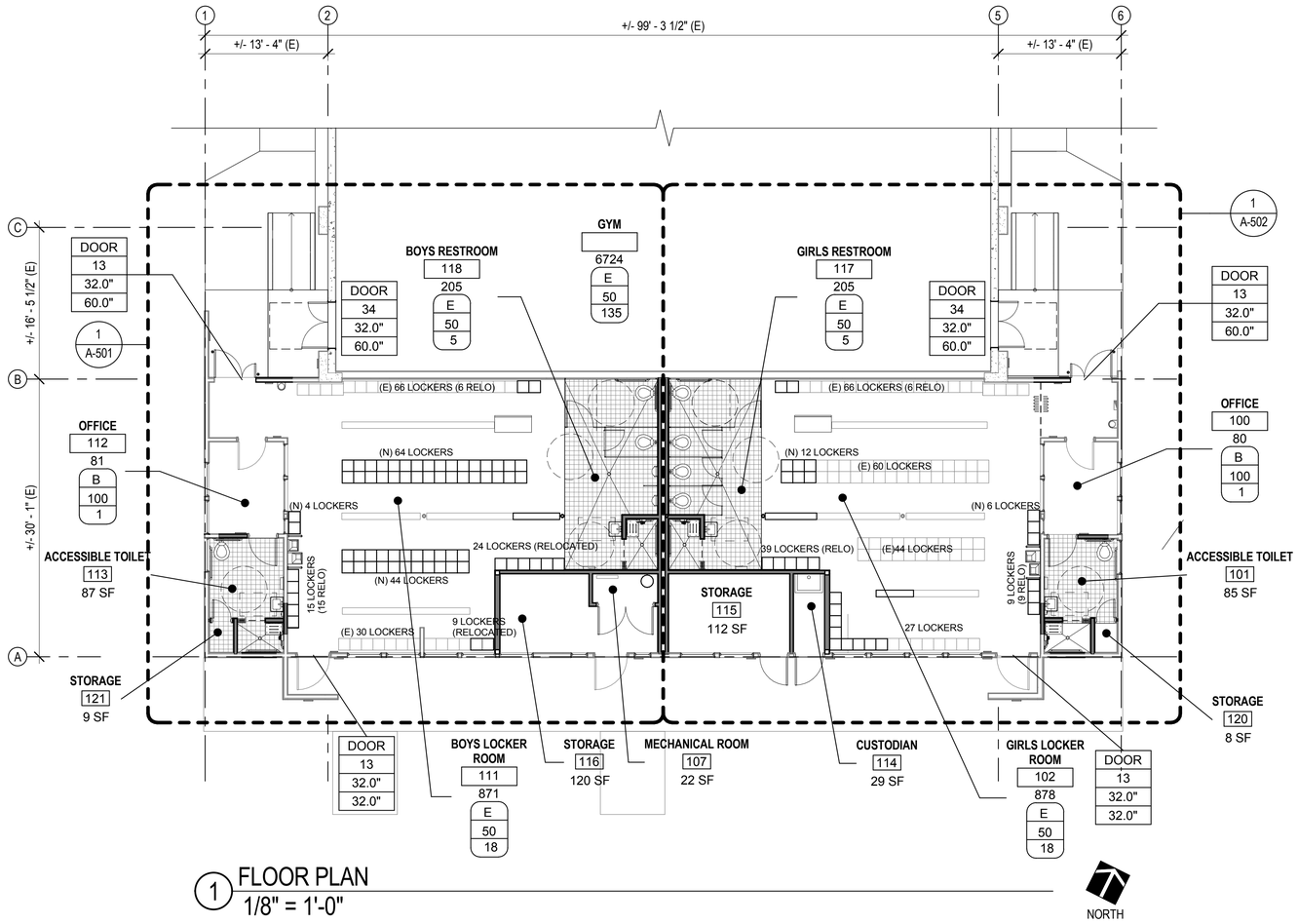
Sheet Name

LOCKER ROOM DEMOLITION FLOOR PLAN

	17761.00
Date	5/31/2018
Drawn by	BI
Checked by	CY

Sheet Number

D-103



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

INTERIOR FINISH SCHEDULE

ROOM#	ROOM NAME	FLOOR MAT.	FLOOR FINISH	BASE MATERIAL	BASE BASE FINISH	NORTH WALL MAT.	NORTH WALL FINISH	EAST WALL MAT.	EAST WALL FINISH	SOUTH WALL MAT.	SOUTH WALL FINISH	WEST WALL MAT.	WEST WALL FINISH	CEILING MAT.	CEILING CEILING FINISH	REMARKS
	GYM															
100	OFFICE	EX CN	EX PT	EX PL / CN	EX PT / PT	EX PL	EX PT	EX PL / EX CN	EX PT	EX PL / PL	EX PT / PT	EX PL	EX PT	EX PL	PT	
101	ACCESSIBLE TOILET	CT	FF	CT	FF	EX PL / PL / GB / CT	EX PT / PT / FF	EX PL / CT	EX PT / FF	EX PL / GB / CT	EX PT / PT / FF	EX PL / CT	EX PT / FF	EX PL	PT	
102	GIRLS LOCKER ROOM	EX CN	PT	EX PL / CN	EX PT / PT	EX PL / PL	EX PT / PT	EX PL / EX CN / PL	EX PT / PT	EX PL / CN / GB	EX PT / PT	GB	PT	EX PL	PT	
107	MECHANICAL ROOM	CN	PT	-	-	GB	PT	EX PL	EX PT	GB	PT	GB	PT	EX PL	PT	
111	BOYS LOCKER ROOM	EX CN	EX PT	EX PL / CN	EX PT / PT	EX PL / PL	EX PT / PT	GB	PT	EX PL / EX CN / GB	EX PT / PT	EX PL / EX CN / PL	EX PT / PT	EX PL	PT	
112	OFFICE	EX CN	EX PT	EX PL / CN	EX PT / PT	EX PL	EX PT	EX PL	EX PT	EX PL / PL	EX PT / PT	EX PL / EX CN	EX PT	EX PL	PT	
113	ACCESSIBLE TOILET	CT	FF	CT	FF	EX PL / PL / GB / CT	EX PT / PT / FF	EX PL / PL / CT	EX PT / PT / FF	EX PL / GB / CT	EX PT / PT / FF	EX PL / CT	EX PT / FF	EX PL	PT	
114	CUSTODIAN	CN	PT	-	-	GB	PT	GB	PT	EX PL / EX CN	EX PT	GB	PT	EX PL	PT	
115	STORAGE	CN	PT	-	-	GB	PT	GB	PT	EX PL / EX CN	EX PT	EX PL	EX PT	EX PL	PT	
116	STORAGE	CN	PT	-	-	GB	PT	EX PL / GB	EX PT / PT	EX PL / EX CN	EX PT	GB	PT	EX PL	PT	
117	GIRLS RESTROOM	CT	FF	CT	FF	EX PL / CT	EX PT / FF	-	-	GB / CT	PT / FF	GB / CT	PT / FF	EX PL	PT	
118	BOYS RESTROOM	CT	FF	CT	FF	EX PL / CT	EX PT / FF	GB / CT	PT / FF	GB / CT	PT / FF	-	-	EX PL	PT	
120	STORAGE	CT	FF	CT	FF	GB	PT	GB	PT	EX PL	PT	EX PL	PT	EX PL	PT	
121	STORAGE	CT	FF	CT	FF	GB	PT	GB	PT	EX PL	PT	EX PL	PT	EX PL	PT	

SHEET GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ALL DISCREPANCIES TO THE ARCHITECT BEFORE PERFORMING THE WORK.
2. REFER TO INTERIOR ELEVATIONS ON A-210 FOR MORE INFORMATION.
3. ALL FINISHES ARE NEW UNLESS NOTED OTHERWISE.
4. ALL EXISTING FACTORY FINISHES SHALL NOT BE PAINTED. PROTECT FINISH WHEN PAINTING ADJACENT SURFACES.
5. ALL FINISHES SHALL COMPLY WITH CBC, CFC AND TITLE 19 CCR.

LEGEND

- (E) CONCRETE WALL, PROTECT IN PLACE
- (E) WALL, PROTECT IN PLACE
- 6" WOOD FRAME WALL, FULL HEIGHT
- DOOR PER DOOR SCHEDULE
- WINDOW PER WINDOW SCHEDULE
- 5' CLEAR FLOOR SPACE
- TILE FLOORING PER FINISH SCHEDULE
- (E) CONCRETE, PROTECT IN PLACE

CLASSROOM — ROOM NAME
E-1 — ROOM NUMBER
907 SF — ROOM SIZE (SF)
E — OCCUPANCY TYPE
20 — OCCUPANCY FACTOR
46 — TOTAL OCCUPANTS

DOOR — TYPE OF EXIT
13 — OCCUPANT LOAD @ EXIT
32.0" — REQUIRED WIDTH IN INCHES
32.0" — PROVIDED WIDTH IN INCHES

MATERIALS LEGEND

EX CN	EXISTING CONCRETE
CN	CONCRETE
EX PL	EXISTING PLASTER
CT	CERAMIC TILE
GB	GYPSUM WALL BOARD
PL	PLASTER

FINISHES LEGEND

EX PT	EXISTING PAINT
FF	FACTORY FINISH
PT	PAINT

LOCKERS

RM. 111, BOYS LOCKER ROOM
REINSTALL: 0 2TIER, 54 3TIER
NEW: 110 2TIER, 0 3TTIER

ACCESSIBLE 5% PER 11B-225.2.1
6 2TIER, 3 3TIER

RM. 102, GIRLS LOCKER ROOM
REINSTALL: 0 2TIER, 60 3TIER
NEW: 18 2TIER, 0 3TIER

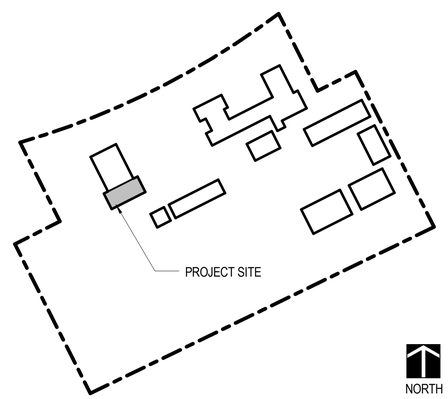
ACCESSIBLE 5% PER 11B-225.2.1
1 2TIER, 3 3TIER

STORAGE AREA

(E) STORAGE:
P.E. - 108 SF
GYM - 52 SF
(E) CUSTODIAL: 34 SF

(N) STORAGE:
P.E - 116 SF
GYM - 104 SF
(N) CUSTODIAL: 30 SF

LOCATION MAP



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LICENSED ARCHITECT TYSON CLINE NO. C-34436 REN. 1-31-19 STATE OF CALIFORNIA

IDENTIFICATION STAMP
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OFFICE OF REGULATION SERVICES
FILE NO. 56-20
03-118467
AC_____ FLS_____ SS_____
DATE_____

OJAI UNIFIED SCHOOL DISTRICT

MATILIJA JUNIOR HIGH SCHOOL GYM REROOFING AND LOCKER RM REMODEL

703 EL PASEO ROAD, OJAI, CA 93023

CONSTRUCTION DOCUMENTS

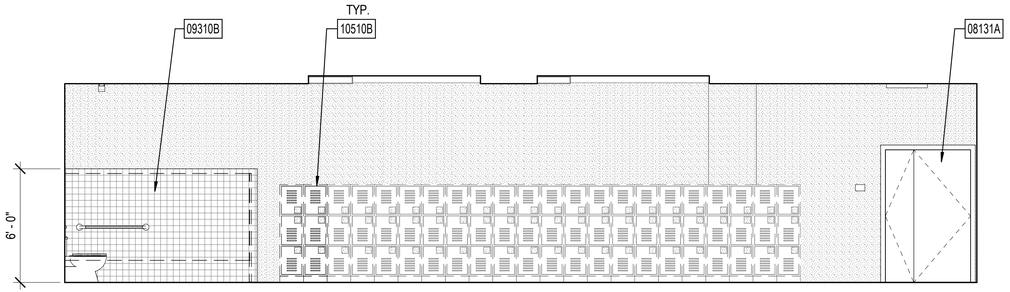
No.	Description	Date

Sheet Name

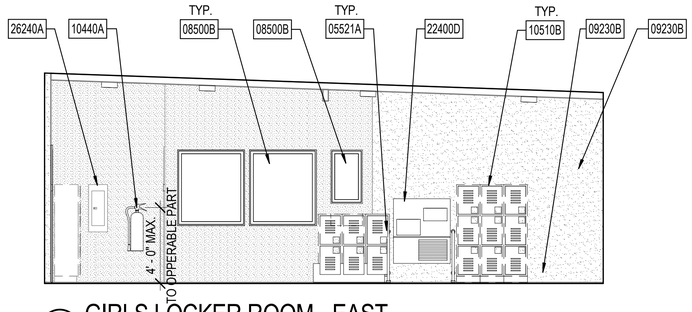
LOCKER RM. FLOOR PLAN & INT. FINISH SCHEDULE

17761.00
Date 5/31/2018
Drawn by BI
Checked by CY
Sheet Number

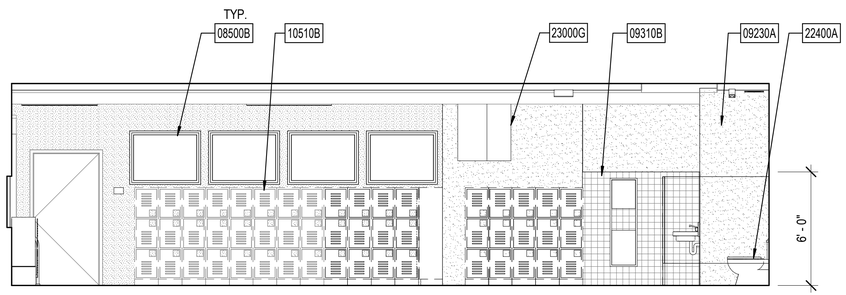
A-103



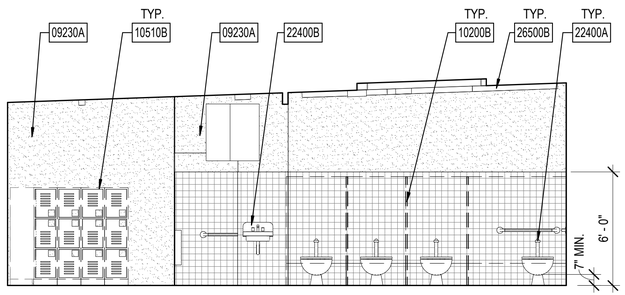
2 GIRLS LOCKER ROOM - NORTH
1/4" = 1'-0"



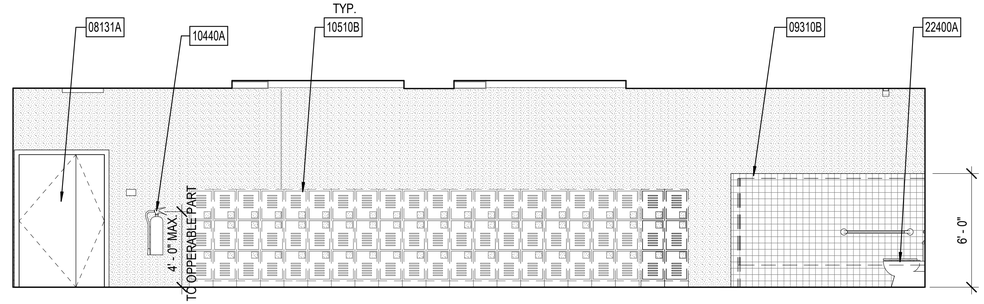
1 GIRLS LOCKER ROOM - EAST
1/4" = 1'-0"



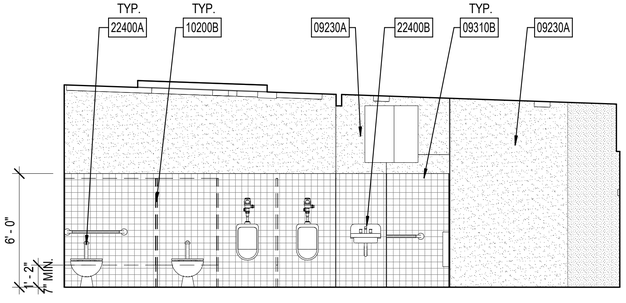
3 GIRLS LOCKER ROOM - SOUTH
1/4" = 1'-0"



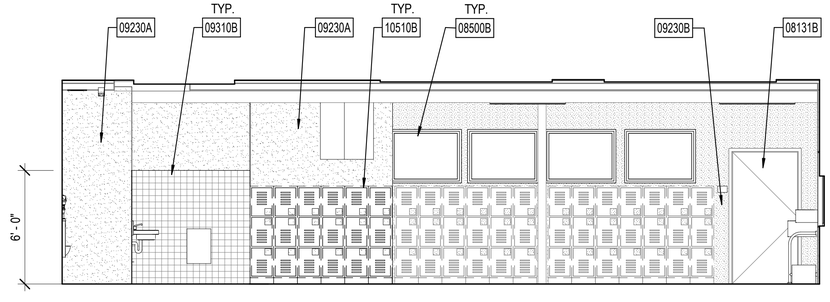
4 GIRLS LOCKER ROOM - WEST
1/4" = 1'-0"



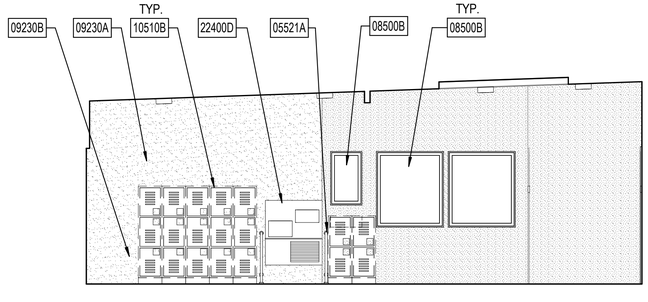
5 BOYS LOCKER ROOM - NORTH
1/4" = 1'-0"



6 BOYS LOCKER ROOM - EAST
1/4" = 1'-0"



7 BOYS LOCKER ROOM - SOUTH
1/4" = 1'-0"

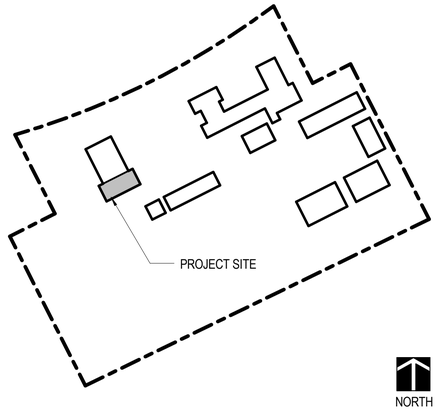


8 BOYS LOCKER ROOM - WEST
1/4" = 1'-0"

KEYNOTES

05521A	DRINKING FOUNTAIN GUARDRAIL AND GRAB BAR
08131A	DOOR, REFER TO DOOR SCHEDULE
08131B	(E) DOOR, PROTECT IN PLACE
08500B	WINDOW, REFER TO WINDOW SCHEDULE, WINDOWS 100A & 112A WALL OPENING PER 4/S600A
09230A	INSTALL PLYWOOD SUBSTRATE AND PLASTER FINISH, PAINT TO MATCH (E) WALL FINISH
09230B	PATCH PLASTER AS NEEDED, PAINT TO MATCH DISTRICT STANDARDS
09310B	CERAMIC WALL TILE
10200B	TOILET PARTITION, REFER TO 5/AD-702 FOR BACKING DETAILS
10440A	RELOCATE (E) PORTABLE FIRE EXTINGUISHER
10510B	2-TIER LOCKER, REFER TO 10/AD-901
22400A	ADA TOILET
22400B	ADA LAVATORY
22400D	HIGH / LOW ADA DRINKING FOUNTAIN, REFER TO 15/AD-702
23000G	MECHANICA EQUIPMENT, REFER TO MECHANICAL DRAWINGS
26240A	(E) ELECTRICAL PANEL, PROTECT IN PLACE
26500B	LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS

LOCATION MAP



NORTH

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OJAI UNIFIED SCHOOL DISTRICT

MATILIJA JUNIOR HIGH SCHOOL GYM REROOFING AND LOCKER RM REMODEL

703 EL PASEO ROAD,
OJAI, CA 93023

CONSTRUCTION DOCUMENTS

No.	Description	Date

Sheet Name

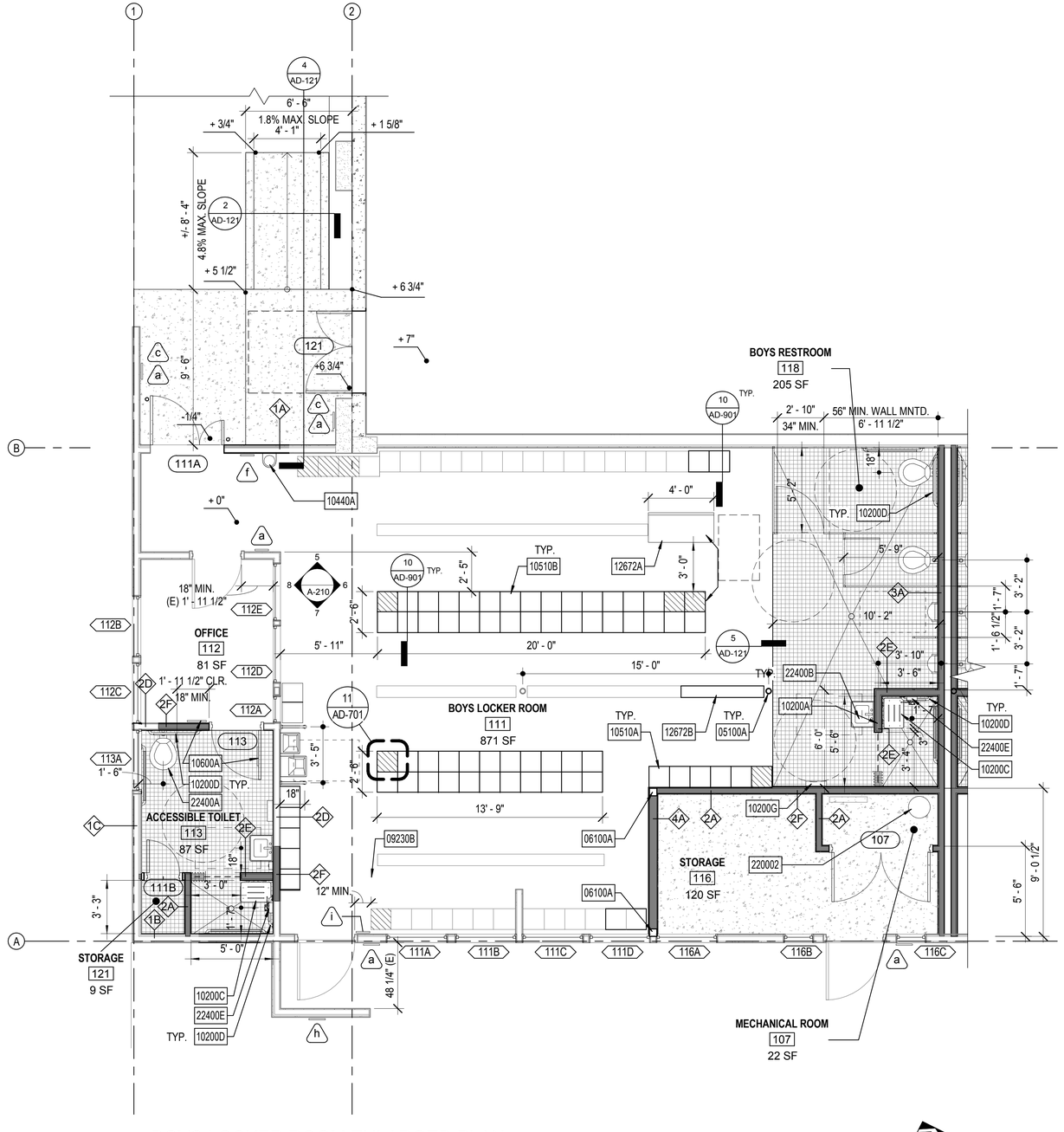
LOCKER ROOM INTERIOR ELEVATIONS

	17761.00
Date	5/31/2018
Drawn by	BI
Checked by	CY

Sheet Number

A-210

C:\Users\YOUNG\Documents\Matilija Roofing Project_young@rntarchitects.com.rvt



1 BOYS LOCKER ROOM ENLARGED PLAN
1/4" = 1'-0"

NORTH

SHEET GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ALL DISCREPANCIES TO THE ARCHITECT BEFORE PERFORMING THE WORK.

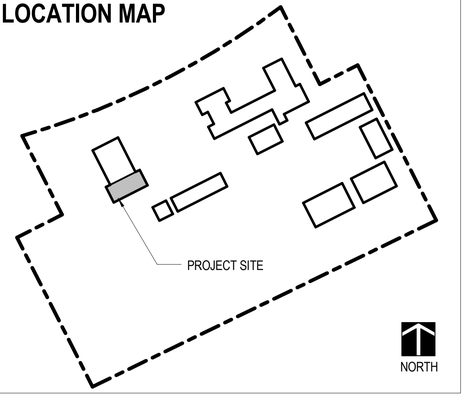
LEGEND

- (E) CONCRETE WALL, PROTECT IN PLACE
- (E) WALL, PROTECT IN PLACE
- 6" WOOD FRAME WALL, FULL HEIGHT
- 0000A — DOOR PER DOOR SCHEDULE
- 0000A — WINDOW PER WINDOW SCHEDULE
- 5' CLEAR FLOOR SPACE
- 30" X 48" CLEAR FLOOR SPACE
- ACCESSIBLE LOCKER, REFER TO LOCKER NOTES ON A-103 & ACCESSIBLE DETAILS ON 11/AD-701
- THIN-SET TILE FLOORING PER FINISH SCHEDULE
- NEW CONCRETE
- 0A — WALL TYPE, REFER TO AD-101
- a — INDICATES BUILDING SIGNAGE, REFER TO AD-601

KEYNOTES

05100A	STEEL COLUMN, REFER TO STRUCTURAL DRAWINGS
06100A	6X6 POST, REFER TO STRUCTURAL DRAWINGS
09230B	PATCH PLASTER AS NEEDED, PAINT TO MATCH DISTRICT STANDARDS
10200A	PRIVACY CURTAIN AND TRACK, REFER TO 15/AD-901
10200C	ADA SHOWER BENCH, REFER TO 8/AD-702 FOR ANCHORAGE DETAILS & TO 17/AD-701
10200D	ADA GRAB BAR, REFER TO 20/AD-702 FOR BACKING DETAILS
10200G	PAPER TOWEL DISPENSER
10440A	RELOCATE (E) PORTABLE FIRE EXTINGUISHER
10510A	INSTALL CURB AT LOCKERS. REINSTALL 3-TIER LOCKERS
10510B	2-TIER LOCKER, REFER TO 10/AD-901
10600A	SIGNAGE, REFER TO AD-601
12672A	ADA LOCKER ROOM BENCH, REFER TO 17/AD-702
12672B	LOCKER ROOM BENCH, MATCH (E) BENCH CONSTRUCTION. REFER TO 18/AD-901
22400A	ADA TOILET
22400B	ADA LAVATORY
22400E	ADA SHOWER, REFER TO 7/AD-702
220002	REINSTALL (E) WATER HEATER

LOCATION MAP



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OJAI, CA 93023

CONSTRUCTION DOCUMENTS

No.	Description	Date

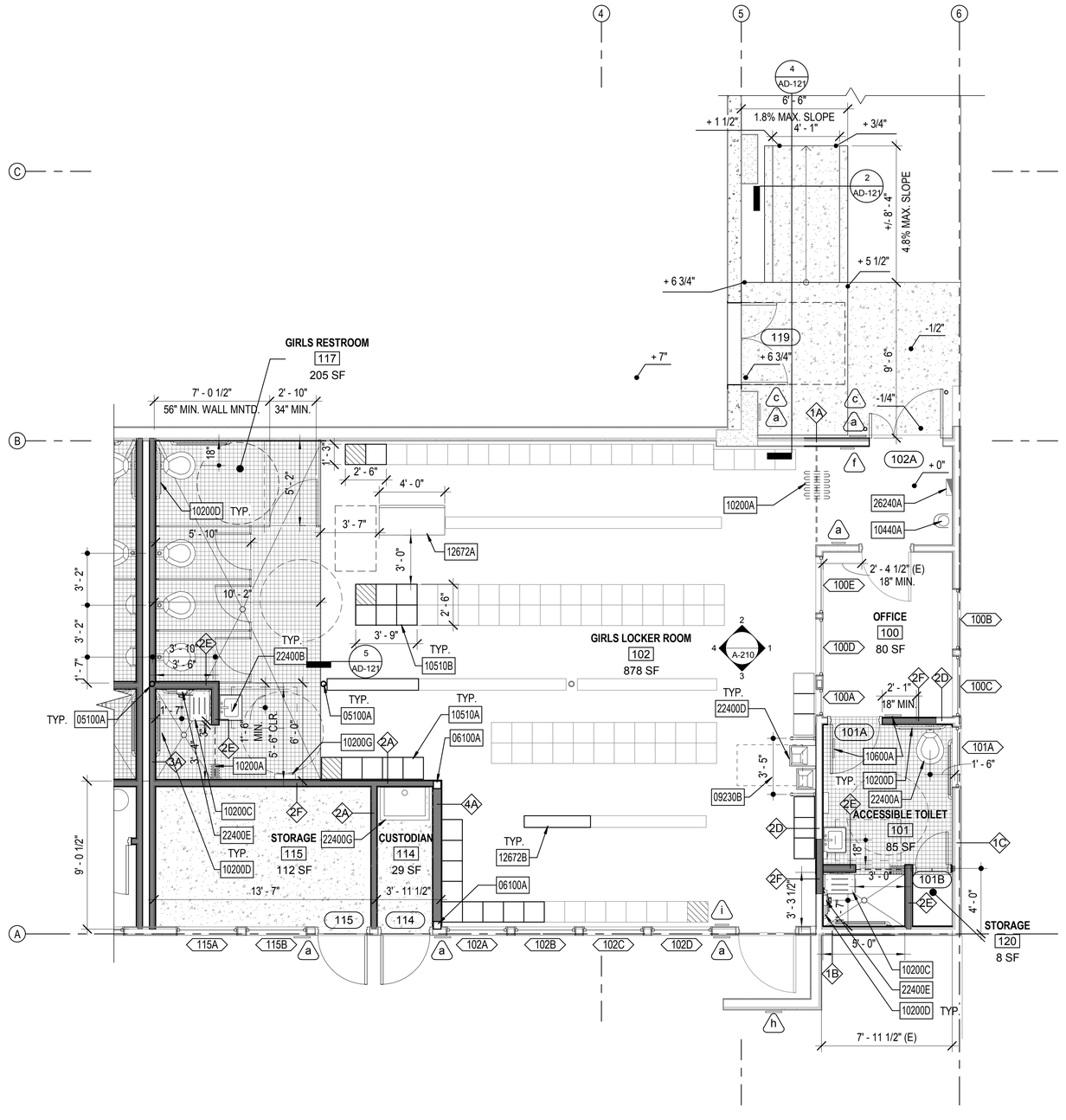
Sheet Name

BOYS LOCKER RM ENLARGED FLOOR PLAN

	17761.00
Date	5/31/2018
Drawn by	BI
Checked by	CY

Sheet Number

A-501



1 GIRLS LOCKER ROOM ENLARGED PLAN
1/4" = 1'-0"

SHEET GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ALL DISCREPANCIES TO THE ARCHITECT BEFORE PERFORMING THE WORK.

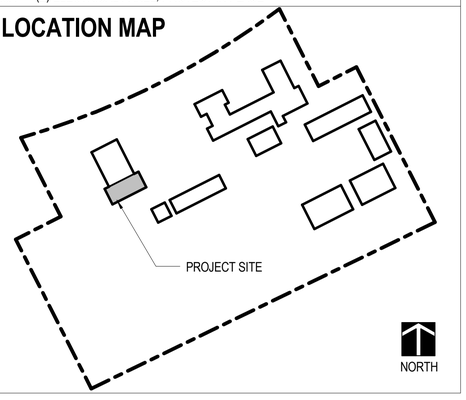
LEGEND

- (E) CONCRETE WALL, PROTECT IN PLACE
- (E) WALL, PROTECT IN PLACE
- 6" WOOD FRAME WALL, FULL HEIGHT
- 0000A — DOOR PER DOOR SCHEDULE
- 0000A — WINDOW PER WINDOW SCHEDULE
- 5' CLEAR FLOOR SPACE
- 30" X 48" CLEAR FLOOR SPACE
- ACCESSIBLE LOCKER, REFER TO LOCKER NOTES ON A-103 & ACCESSIBLE DETAILS ON 11/AD-701
- THIN-SET TILE FLOORING PER FINISH SCHEDULE
- NEW CONCRETE
- 0A — WALL TYPE, REFER TO AD-101
- a — INDICATES BUILDING SIGNAGE, REFER TO AD-601

KEYNOTES

05100A	STEEL COLUMN, REFER TO STRUCTURAL DRAWINGS
06100A	6X6 POST, REFER TO STRUCTURAL DRAWINGS
09230B	PATCH PLASTER AS NEEDED, PAINT TO MATCH DISTRICT STANDARDS
10200A	PRIVACY CURTAIN AND TRACK, REFER TO 15/AD-901
10200C	ADA SHOWER BENCH, REFER TO 8/AD-702 FOR ANCHORAGE DETAILS & TO 17/AD-701
10200D	ADA GRAB BAR, REFER TO 20/AD-702 FOR BACKING DETAILS
10200G	PAPER TOWEL DISPENSER
10440A	RELOCATE (E) PORTABLE FIRE EXTINGUISHER
10510A	INSTALL CURB AT LOCKERS. REINSTALL 3-TIER LOCKERS
10510B	2-TIER LOCKER, REFER TO 10/AD-901
10600A	SIGNAGE, REFER TO AD-601
12672A	ADA LOCKER ROOM BENCH, REFER TO 17/AD-702
12672B	LOCKER ROOM BENCH, MATCH (E) BENCH CONSTRUCTION. REFER TO 18/AD-901
22400A	ADA TOILET
22400B	ADA LAVATORY
22400D	HIGH / LOW ADA DRINKING FOUNTAIN, REFER TO 15/AD-702
22400E	ADA SHOWER, REFER TO 7/AD-702
22400G	MOP SINK, REFER TO PLUMBING DRAWINGS
26240A	(E) ELECTRICAL PANEL, PROTECT IN PLACE

LOCATION MAP



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CONSTRUCTION DOCUMENTS

No.	Description	Date

Sheet Name

GIRLS LOCKER RM ENLARGED FLOOR PLAN

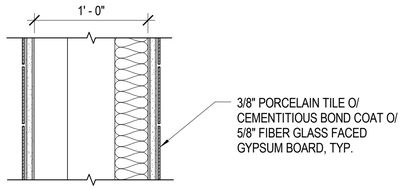
	17761.00
Date	5/31/2018
Drawn by	BI
Checked by	CY

Sheet Number

A-502

DOUBLE INT. PARTITION WALL — 1 1/2" = 1'-0" (6)

3A DOUBLE INTERIOR PARTITION WALL W/ 4" WOOD STUDS W/ 3/8" PORCELAIN TILE O/ CEMENTITIOUS BOND COAT O/ 5/8" FIBER GLASS FACED GYPSUM BOARD ON BOTH SIDES.



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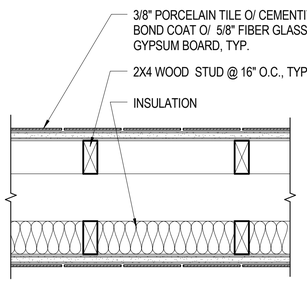
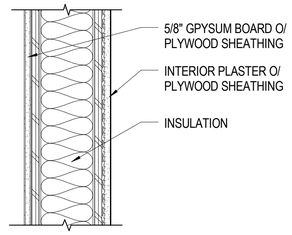


PLAN 3A

SHEAR WALL — 1 1/2" = 1'-0" (7)



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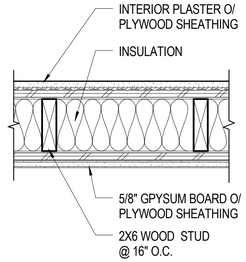
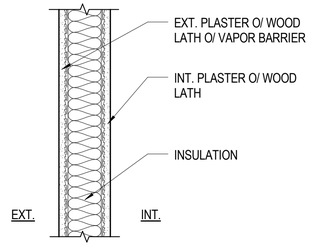


PLAN 4A

EXTERIOR WOOD STUD WALL — 1 1/2" = 1'-0" (10)



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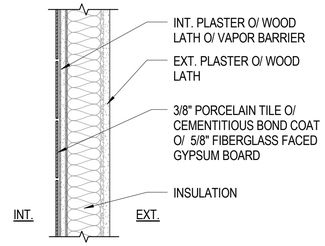

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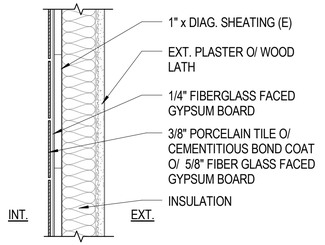

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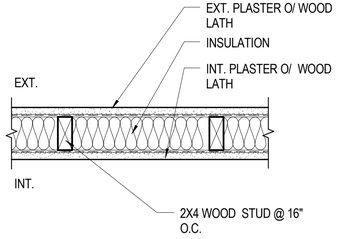
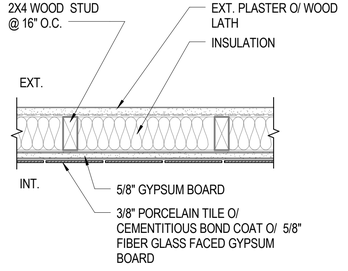
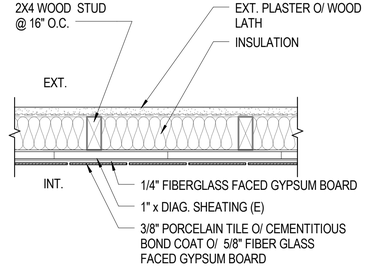


PLAN 1A



PLAN 1B



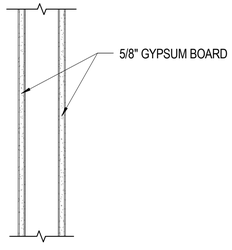
PLAN 1C

1A EXTERIOR WALL W/ 4" WOOD STUDS W/ INTERIOR PLASTER O/ WOOD PATH ON ONE SIDE AND EXTERIOR PLASTER O/ WOOD LATH. INSULATION BETWEEN STUDS.

1B EXTERIOR WALL W/ 4" WOOD STUDS W/ EXTERIOR PLASTER O/ WOOD LATH AND 3/8" PORCELAIN TILE O/ CEMENTITIOUS BOND COAT O/ 5/8" FIBER GLASS FACED GYPSUM BOARD. INSULATION BETWEEN STUDS.

1C EXTERIOR WALL W/ 4" WOOD STUDS W/ EXTERIOR PLASTER O/ WOOD LATH AND 3/8" PORCELAIN TILE O/ 1/4" FIBER GLASS FACED GYPSUM BOARD O/ CEMENTITIOUS BOND COAT O/ 5/8" DIAGONAL SHEATING. INSULATION BETWEEN STUDS.

INTERIOR WOOD STUD WALL — 1 1/2" = 1'-0" (20)



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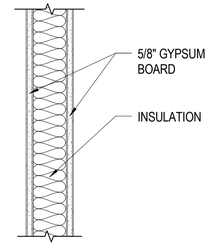

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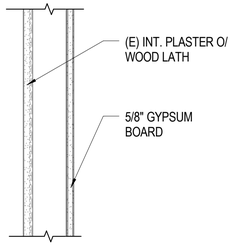

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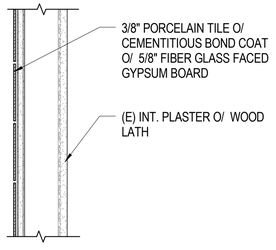

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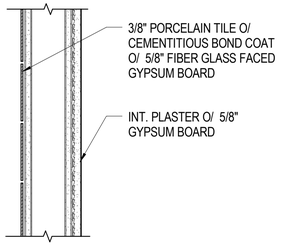

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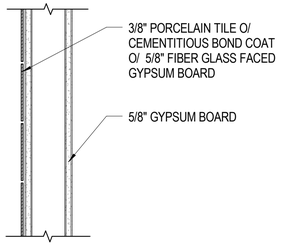

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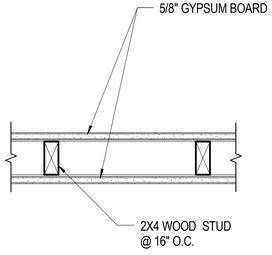
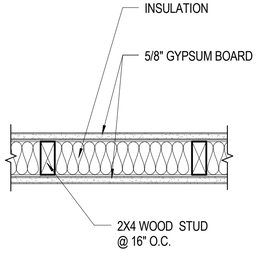
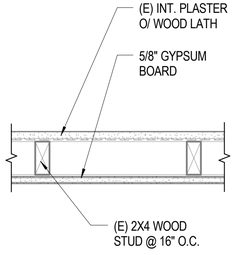


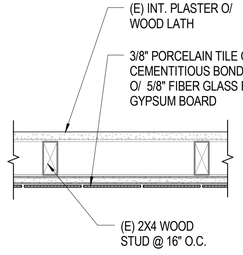
PLAN 2A



PLAN 2B



PLAN 2C



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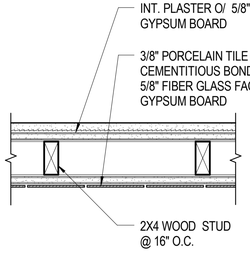

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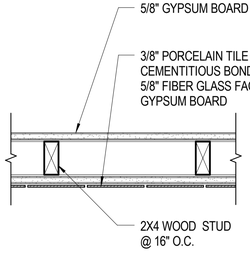

PLAN 2F

2A INTERIOR WALL W/ 4" WOOD STUDS W/ 5/8" GYPSUM BOARD BOTH SIDES.

2B INTERIOR WALL W/ 4" WOOD STUDS W/ 5/8" GYPSUM BOARD BOTH SIDES. INSULATION BETWEEN STUDS.

2C INTERIOR WALL W/ 4" WOOD STUDS W/ INTERIOR PLASTER O/ WOOD LATH ONE SIDE AND 5/8" GYPSUM BOARD.

2D INTERIOR WALL W/ 4" WOOD STUDS W/ INTERIOR PLASTER O/ WOOD LATH ONE SIDE AND 3/8" PORCELAIN TILE O/ CEMENTITIOUS BOND COAT O/ 5/8" FIBER GLASS FACED GYPSUM BOARD.

2E INTERIOR WALL W/ 4" WOOD STUDS W/ 3/8" PORCELAIN TILE O/ CEMENTITIOUS BOND COAT O/ 5/8" FIBER GLASS FACED GYPSUM BOARD BOTH SIDES.

2F INTERIOR WALL W/ 4" WOOD STUDS W/ 5/8" GYPSUM BOARD ONE SIDE AND 3/8" PORCELAIN TILE O/ CEMENTITIOUS BOND COAT O/ 5/8" FIBER GLASS FACED GYPSUM BOARD.

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OJAI UNIFIED SCHOOL DISTRICT

MATILIJA JUNIOR HIGH SCHOOL GYM REROOFING AND LOCKER RM REMODEL

703 EL PASEO ROAD, OJAI, CA 93023

CONSTRUCTION DOCUMENTS

No.	Description	Date

Sheet Name

WALL TYPE DETAILS

	17761.00
Date	5/31/2018
Drawn by	BI
Checked by	CY

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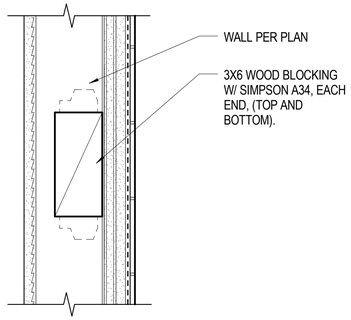
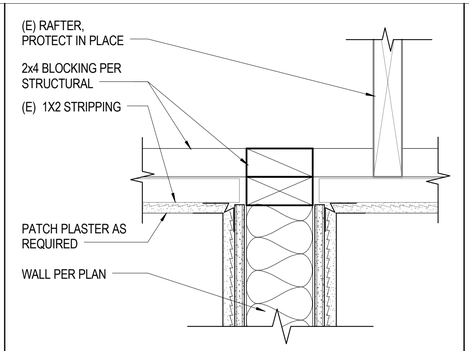
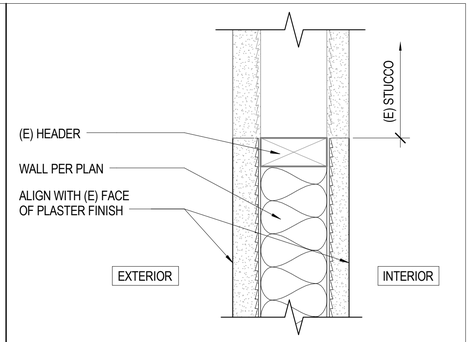
AD-101



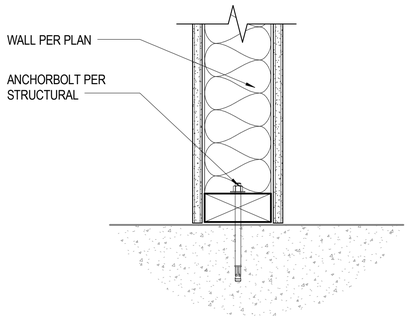
TYPICAL BACKING 3" = 1'-0" (3)



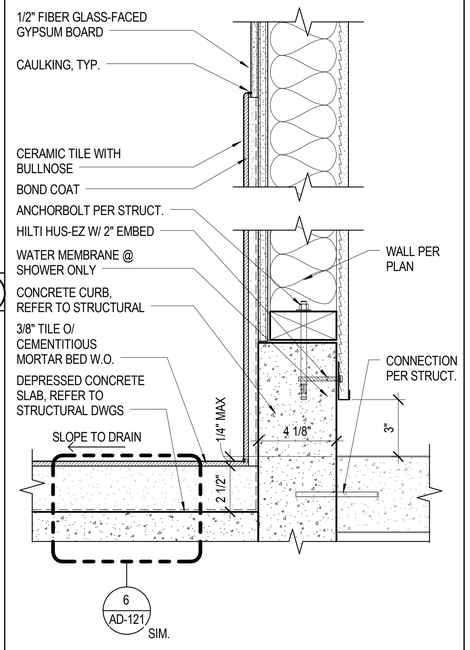
TOP OF INT. PARTITION WALL 3" = 1'-0" (4)



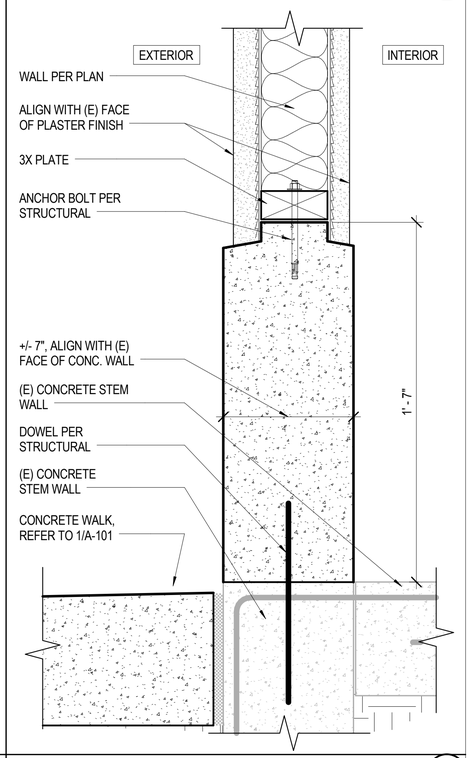
EXTERIOR WALL @ (E) HEADER 3" = 1'-0" (5)



BASE OF INT. PARTITION WALL 3" = 1'-0" (8)



CURB @ INT. PARTITION WALL 3" = 1'-0" (14)



BASE OF EXTERIOR WALL 3" = 1'-0" (15)

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TYPICAL WALL DETAILS

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Drawn by	BI
Checked by	CY

Sheet Number

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