SOUTHERN OREGON UNIVERSITY

RESTROOM REMODEL PACKAGE

ASHLAND, OREGON

KISTLER, SMALL, & WHITE
ARCHITECTS
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OREGON UNIVERSITY SYSTEM
STANDARD PUBLIC IMPROVEMENT CONTRACT

ADVERTISEMENT FOR BIDS

Sealed bids will be received by the Oregon State Board of Higher Education at the **Southern Oregon University Facilities Management & Planning Department, 351 Walker Avenue, Ashland, Oregon** until **4:00 PM** local time **June 28, 2012** for the Restroom Remodel Package on the Southern Oregon University (SOU) campus in Ashland, Oregon.

This project includes all labor, equipment and materials necessary to renovate toilet rooms in three buildings. Work includes selective demolition, wood framing, gypsum board wall and ceiling patching, casework, wood doors, meal frames, door hardware, painting, ceramic tile, acoustical ceilings, toilet accessories, toilet partitions, plumbing, lighting and incidental related work as described in the drawings and specifications. The project includes work in three separate buildings.

Briefly, the project scope includes:
Education/Psychology Building:
Renovate (1)Men's and (1)Women's Toilet Rooms on the Basement Floor
Renovate (1) Men's and (1) Women's Toilet Room on the Main Floor
Replace existing drinking fountains with new drinking fountains with water bottle fillers at **2** locations.

Britt Hall
Renovate (1) Men's and (1) Women's Toilet Room on the Main Floor
Install new service window with coiling door at (1) hallway location

McNeal Hall
Renovate (1) Men's and (1) Women's Toilet Room on the Main Floor
Replace existing drinking fountain with new drinking fountain with water bottle filler at **1** location.

A **mandatory pre-bid conference** will be held on **Thursday June 14, 2012 a**t **2:30 PM**. All prospective bidders are required to attend. Prospective bidders shall meet with the Architect and the Owner's Representatives in the Lobby of the Education/Psychology Building (370 Mountain Avenue).

Bids must be submitted on the enclosed bid form and will be opened and publicly read aloud on **June 28, 2012** at **4:00 PM**, local time, at the **Southern Oregon University Facilities Management & Planning Department, 351 Walker Avenue, Ashland, Oregon** by the undersigned or a designated representative.

The prime bidder and all subcontractors must be currently licensed to practice in each of their respective areas of expertise by the State of Oregon Construction Contractor's Board. A bid bond is not required for this project. Performance and payment bonds may be required if the bid amount exceeds $100,000. Bidders shall fill in their bond cost on the bid form.

This project will be permitted by the City of Ashland through SOU's Master Facility Permit Program. The selected contractor is required to coordinate all required inspections with the Ashland Building Department and deliver a Certificate of Occupancy to SOU upon completion of the project. All permit fees charged by the City of Ashland will be paid directly by SOU.

This Advertisement for Bids has been issued under the Oregon University System (OUS) Capital Construction Retainer Program. Only firms with a current OUS Retainer Contract may submit bids. The OUS General Conditions for Public Improvement Contracts (General Conditions) apply to this project.

Bids will be received on a lump-sum basis and must be submitted on the bid form. Contract documents may be obtained from **OUS** website: **http://www.ous.edu/about/bid .**

Oregon Bureau of Labor and Industries (BOLI) wage rates apply to this project if the bid amount exceeds $50,000.00. All bidders must comply with requirements of the prevailing wage law (BOLI) in ORS 279C.800 through ORS 279C.870 if applicable. All bidders must be registered with the Construction Contractor's Board at the time of bid submission.

OREGON STATE BOARD OF HIGHER EDUCATION
By: Drew Gilliland
Director, SOU Facilities Management and Planning

PUBLICATIONS AND DATES:
Oregon University System Capital Construction website: June 12, 2012

OREGON UNIVERSITY SYSTEM

STANDARD PUBLIC IMPROVEMENT CONTRACT

SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

Project Name: SOU Restroom Remodel Package

Project Schedule:

Advertisement for Bids	June 12, 2012
Mandatory Pre-bid Conference	**June 14, 2012, 2:30 p.m.**
Deadline for Written Submittal of Questions/Requests for Clarifications	June 18, 2012, 4:00 p.m.
SOU to Issue Written Addendum in Response to Questions	June 19, 2012, 4:00 p.m.
Bid Deadline	**June 28, 2012, 4:00 p.m.**
Anticipated Notice of Award	June 29, 2012
Construction Schedule:	
Construction Start	July 9, 2012
Substantial Completion	August 17, 2012

Bid Submittal Requirements

A signed Bid Form must be submitted by 4:00 PM on June 28, 2012 to:

Drew Gilliland
Director, Facilities Management and Planning
Southern Oregon University
351 Walker Avenue
Ashland, OR 97520

Bids may be hand delivered to 351 Walker Avenue, Ashland, OR, faxed to (541) 552-6235 or emailed to Drew Gilliland GillilanD@sou.edu .

Questions

All questions or requests for clarification must be addressed either in writing, fax, or email to Drew Gilliland at the address, email or fax listed above. Questions must be submitted by **June 18, 2012 at 4:00 PM.** Questions will be answered by addendum. Addenda will be distributed to all registered bidders by email and will be posted on the OUS website. If you are unclear about any information contained in this bid advertisement you are urged to submit those questions for formal clarification.

OREGON UNIVERSITY SYSTEM

STANDARD PUBLIC IMPROVEMENT CONTRACT

BID FORM

OUS CAMPUS: Southern Oregon University

PROJECT: SOU Restroom Remodel Package

BID CLOSING: June 28, 2012, 4:00 p.m. Local Time

BID OPENING: June 28, 2012, 4:00 p.m. Local Time

FROM: _____
Name of Contractor

TO: Oregon State Board of Higher Education
Southern Oregon University
1250 Siskiyou Blvd.
Ashland, Oregon 97520

1. The Undersigned (*check one of the following and insert information requested*):

____a. An individual doing business under an assumed name registered under the laws of the State of _____; or

____b. A partnership registered under the laws of the State of _____; or

____c. A corporation organized under the laws of the State of _____; or

____d. A limited liability corporation organized under the laws of the State of _____;

hereby proposes to furnish all material and labor and perform all work hereinafter indicated for the above project in strict accordance with the Contract Documents for the amount of:

_____ Dollars ($_____)

State the cost to provide a Performance and Payment Bond for 100% of the bid amount:

_____ Dollars ($_____)

And the Undersigned agrees to be bound by the following documents:

- Advertisement for Bids
- Supplemental Instructions to Bidders
- OUS Contractor Retainer Agreement
- OUS General Conditions
- Prevailing Wage Rates (if total proposal amount exceeds $50,000.00)
- Drawings and Specifications

• ADDENDA numbered ____ through____, inclusive *(fill in blanks)*

2. The Undersigned proposes to add to the Base Bid indicated above the items of work relating to the following Alternate(s) as designated in the Specifications:

NO ALTERNATES

3. The work shall be completed within the time stipulated in the Supplemental Instructions to Bidders.

4. The Undersigned agrees, if awarded the Contract, to execute and deliver to the Oregon State Board of Higher Education, within three (3) calendar days after receiving the form, a supplement to the Proposer's OUS Retainer Agreement.

5. The Undersigned certifies that: (1) This Bid has been arrived at independently and is being submitted without collusion with and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit independent bidding or competition; and (2) The contents of the Bid have not been communicated by the Undersigned or its employees or agents to any person not an employee or agent of the Undersigned or its surety on any Bond furnished with the Bid and will not be communicated to such person prior to the official opening of the Bid.

6. The undersigned **HAS, HAS NOT** (*circle applicable status*) paid unemployment or income taxes in Oregon within the past 12 months and **HAS, HAS NOT** (*circle applicable status*) a business address in Oregon.

7. The Undersigned agrees, if awarded a contract, to comply with the provisions of ORS 279C.800 through 279C.870 pertaining to the payment of the prevailing rates of wage.

8. Contractor's CCB registration number is _____. As a condition to submitting a bid, a Contractor must be registered with the Oregon Construction Contractors Board in accordance with ORS 701.035 to 701.055, and disclose the registration number. Failure to register and disclose the number will make the bid unresponsive and it will be rejected, unless contrary to federal law.

9. The successful Bidder hereby certifies that all subcontractors who will perform construction work as described in ORS 701.005(2) were registered with the Construction Contractors Board in accordance with ORS 701.035 to 701.055 at the time the subcontractor(s) made a bid to work under the contract.

10. The successful Bidder hereby certifies that, in compliance with the Worker's Compensation Law of the State of Oregon, its Worker's Compensation Insurance provider is _____, Policy No. _____, and Contractor shall submit Certificates of Insurance as required.

11. The Undersigned certifies that it has not discriminated against minority, women, or emerging small businesses in obtaining any subcontracts for this project.

12. Contractor's Key Personnel. The Contractor's project staff for this project shall consist of the following personnel:

Principal-in-Charge: _____

Project Manager: _____

On-Site Job Superintendent: _____

By signature below, Contractor agrees to be bound by this Bid.

NAME OF FIRM _____

ADDRESS _____

_____

FEDERAL TAX ID _____

TELEPHONE NO _____

FAX NO _____

SIGNATURE 1) _____
Sole Individual

or 2) _____
Partner

or 3) _____
Authorized Officer of Corporation

(SEAL)

_____
Attested: Secretary of Corporation

Payment information will be reported to the IRS under the name and taxpayer ID # provided above. Information not matching IRS records could subject Contractor to 31 percent backup withholding.

***** *END OF BID* *****

STATE OF OREGON
FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM

This form must be submitted at the location specified in the Invitation to Bid within two (2) working hours after the date and time of the deadline when the bids are due.

List below the name of each subcontractor that will be furnishing labor or labor and materials and that is required to be disclosed by ORS 279C.370, the dollar value of the subcontract and the category of work that the subcontractor will be performing.

*Enter "**NONE**" if there are no subcontractors that need to be disclosed.*
(ATTACH ADDITIONAL SHEETS IF NEEDED)

Project Name: **SOU Restroom Remodel Package**

Bid Closing - Date: June 28, 2012 Time: 4:00 PM

SUBCONTRACTOR NAME (Please Print)	**DOLLAR VALUE**	**CATEGORY/DIVISION OF WORK** (Painting, electrical, landscaping, etc.)
Name	**$**	
Name	**$**	
Name	**$**	
Name	**$**	
Name	**$**	
Name	**$**	
Name	**$**	
Name	**$**	
Name	**$**	
Name	**$**	
Name	**$**	
Failure to submit this form by 6:00 p.m. on the day of the bid opening will result in a non-responsive bid. **A non-responsive bid will not be considered for award.**		

Form submitted by (Bidders Name):_____

Contact Name:_____ Phone No.:_____

Revised 031506jst

PART 1 GENERAL

1.1 REQUIREMENTS INCLUDED

A. Contract Description
B. Conditions of the Contract
C. Contract Type
D. Work Sequence
E. Owner Occupancy
F. Contractors Use of Premises
G. Future Work
H. Specification Conventions

1.2 RELATED REQUIREMENTS

A. Documents B-1, B-3, B-5, B5A

1.3 CONTRACT DESCRIPTION

A. Demolition of indicated fixtures/walls/assemblies in Restrooms as indicated on plans.
B. Remodel and furnish Restrooms to finished condition as indicated on plans.
C. Install new drinking fountains at Ed. Psych. And McNeal.
D. Perform Work of the Contract under stipulated Sum Contract with Owner in accordance with the Conditions of the Contract.

1.4 CONDITIONS OF THE CONTRACT

A. The Conditions of the Contract and the General Requirements (Division 1) of these Specifications apply to the work described under each Section hereof. The Contractor shall instruct each subcontractor to incorporate those provisions in their bids.

1.5 CONTRACT TYPE

A. Construct the Work under a single lump sum contract. Work performed under O.U.S. retainer contract

1.6 WORK SEQUENCE

A. Sequence and schedule Work in one continuous phase to permit Owner's use of the Project at the earliest possible date.
B. Contractor shall keep (1) womens and (1) mens restroom operational in Ed./Psych. At all times.

1.7 OWNER OCCUPANCY

A. Expedite completion of the Work for the Owner's use of each building in the project at the earliest possible date.
B. In the event of Owner occupancy or use of the Work prior to its completion, schedule work remaining to permit Owner functions with minimal disruption. All buildings will be continuously occupied throughout project.

1.8 CONTRACTOR USE OF PREMISES

A. Contractor shall limit use of premises to allow:

1. Owner occupancy

B. Coordinate use of premises under direction of Architect.

C. Assume full responsibility for protection and safekeeping of products under this Contract.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Cash Allowances.
B. Schedule of values.
C. Applications for payment.
D. Change procedures.
E. Defect assessment.
F. Unit prices.
G. Alternates.

1.2 SCHEDULE OF VALUES

A. Submit printed schedule on AIA Form G703 - Continuation Sheet for G702.Contractor's standard form or electronic media printout will be considered.
B. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
C. Format: Utilize Table of Contents of this Project Manual. Identify each line item with number and title of major specification Section. Identify site mobilization, bonds and insurance and supervision.
D. Include separately from within each line item, direct proportional amount of Contractor's overhead and profit.
E. Revise schedule to list approved Change Orders, with each Application For Payment.

1.3 APPLICATIONS FOR PAYMENT

A. Submit three copies of each application on AIA Form G702 - Application and Certificate for Payment and AIA G703 - Continuation Sheet for G702.
B. Content and Format: Use Schedule of Values for listing items in Application for Payment.
C. Submit updated construction schedule with each Application for Payment.
D. Payment Period: Submit Payment Application each month during construction of the Project. Submit with transmittal letter as specified for Submittals in Section 01330.
E. Payment: If a Payment Application is submitted by the twenty-fifth day of the month for which payment is requested and the Application correctly states the amount of payment due for work actually performed and materials acquired for the time period, the Owner will release payment on or before the tenth day of the following month, or on the first day after the tenth day of the following month if the tenth day is a Saturday or a Sunday, or on the fifteenth day of the following month if the tenth day is a Legal Holiday.
F. Substantiating Data: With each Payment Application submit:
    1. Copies of invoices from each entity performing work or providing materials for the time period.
    2. Description of materials stored off-site. Proof of insurance covering one-hundred percent replacement cost of off-site stored materials .
G. Payment for products stored off the project site: When delay or added cost to Owner can be avoided by storing Products off Site Owner will make payment to Contractor for such Products provided Contractor shall:

1. Locate Storage Facilities within 20 mile of Project Site or within 50 miles of Architect's Office.
2. Make Storage Facilities available for Architect's observation.
3. Segregate and label Stored Products for specified Project.
4. Assume all risk for loss.
5. Assume responsibility for exceeding Product "shelf life."
6. Protect Stored Products and provide applicable Insurance against their damage, discoloration, and theft, listing the Owner and any Mortgagee as Additional Named Insureds.
7. Submit itemized Inventory and Schedule of Values for Stored Products together with Certificate of Insurance.

1.4 CHANGE PROCEDURES

A. Submittals: Submit name of individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.

B. The Architect will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions on AIA Form G710.

C. Request for Information (RFI): Requests for information, clarifications, interpretations and changes which may or may not change the contract sum shall be made on a form acceptable to the Owner, Architect and Contractor.

D. The Architect may issue a Request for Information (RFI) including a detailed description of proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change and the period of time during which the requested price will be considered valid. Contractor will prepare and submit estimate within three days.

E. Contractor may propose changes by submitting a Request for Information (RFI) to Architect, describing proposed change and its full effect on the Work. Include a statement describing reason for the change, and effect on Contract Sum/Price and Contract Time with full documentation and a statement describing effect on Work by separate or other Contractors. Document requested substitutions in accordance with Section 01600.

F. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for Change Order as approved by Architect.

G. Unit Price Change Order: For contract unit prices and quantities, the Change Order will be executed on fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under Construction Change Directive. Changes in Contract Sum/Price or Contract Time will be computed as specified for Change Order.

H. Construction Change Directive: Architect may issue directive, on AIA Form G713 Construction Change Directive signed by Owner, instructing Contractor to proceed with change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change.

I. Change Order Forms: AIA G701 Change Order.

J. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in Conditions of the Contract.

K. Correlation Of Contractor Submittals:
   1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.

2. Promptly revise progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
3. Promptly enter changes in Project Record Documents.

1.5 DEFECT ASSESSMENT

A. Replace the Work, or portions of the Work, not conforming to specified requirements.
B. If, in the opinion of the Architect, it is not practical to remove and replace the Work, the Architect will direct appropriate remedy or adjust payment.
C. Individual specification sections may modify these options or may identify specific formula or percentage sum/price reduction
D. Authority of Architect to assess defects and identify payment adjustments, is final.
E. Non-Payment For Rejected Products: Payment will not be made for rejected products for any of the following:
   1. Products wasted or disposed of in a manner that is not acceptable.
   2. Products determined as unacceptable before or after placement.
   3. Products not completely unloaded from transporting vehicle.
   4. Products placed beyond lines and levels of required Work.
   5. Products remaining on hand after completion of the Work.
   6. Loading, hauling, and disposing of rejected products.

1.6 UNIT PRICES

A. Authority: Measurement methods are delineated in individual specification sections.
B. Measurement methods delineated in individual specification sections complement criteria of this section. In event of conflict, requirements of individual specification section govern.
C. Architect will take measurements and compute quantities accordingly. Provide assistance in taking of measurements.
D. Unit Quantities: Quantities and measurements indicated in Bid Form are for contract purposes only Actual quantities provided shall determine payment. When actual Work requires more or fewer quantities than those quantities indicated, provide required quantities at unit sum/prices contracted.
E. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application or installation of item of the Work; overhead and profit.
F. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Architect multiplied by unit sum/price for Work incorporated in or made necessary by the Work.
G. Measurement Of Quantities:
   1. Weigh Scales: Inspected, tested and certified by applicable state Oregon Weights and Measures department within past year.
   2. Platform Scales: Of sufficient size and capacity to accommodate conveying vehicle.
   3. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.
   4. Measurement by Area: Measured by square dimension using mean length and width or radius.
   5. Linear Measurement: Measured by linear dimension, at item centerline or mean chord.

1.7 ALTERNATES

NO ALTERNATES

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Coordination and project conditions.
B. Field engineering.
C. Preconstruction meeting.
D. Site mobilization meeting.
E. Progress meetings.
F. Pre-installation meetings.
G. Cutting and patching.
H. Special procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

A. Coordinate scheduling, submittals, and Work of various sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, operating equipment.
C. Coordinate space requirements, supports, and installation of mechanical and electrical Work indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
D. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.
E. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion and for portions of Work designated for Owner's occupancy.
F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.
G. *Contractor to be responsible for coordinating the Construction of this Restroom Upgrade project scope in a facility that will be under operation . Loud or otherwise disruptive work can not conflict with normal classroom operation in the near vicinity. One Men's and one Women's Restroom will have to remain operational in the Ed. Psych. Bldg during Restroom Upgrades so staging may be necessary.*

1.3 PRECONSTRUCTION MEETING

A. Architect will schedule meeting after Notice of Award.
B. Attendance Required: Owner, Architect and Contractor. Subcontractors are encouraged to attend.
C. Agenda:
    1. Execution of Owner-Contractor Agreement.
    2. Submission of executed bonds and insurance certificates.
    3. Distribution of Contract Documents.
    4. Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.
    5. Designation of personnel representing parties in Contract, and Architect.
    6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.

7. Submission of monthly estimated construction costs cash flow over duration of project.
8. Scheduling and work sequencing.
9. Miscellaneous administrative issues.
10. Use of premises by Owner and Contractor.
11. Owner's requirements and occupancy.
12. Construction facilities and controls provided by Owner.
13. Temporary utilities provided by Owner.
14. Survey and building layout.
15. Security and housekeeping procedures.
16. Schedules.
17. Application for payment procedures.
18. Procedures for testing.
19. Procedures for maintaining record documents.
20. Requirements for start-up of equipment.
21. Inspection and acceptance of equipment put into service during construction period.

D. Contractor will provide a conference report two days after meeting to participants, with copies to Architect, Owner and major Subcontractors. Owner and Architect will copy others as they require.

1.4 PROGRESS MEETINGS

A. Contractor shall schedule and administer meetings throughout progress of the Work at weekly intervals, dates and location as confirmed by Contractor, Architect and Owner.
B. Architect will prepare agenda and preside at progress meetings.
C. Attendance Required: Job superintendent, major subcontractors and suppliers when impacted by the current or impending work , Owner, Architect, and Consulting Engineers as appropriate to agenda topics for each meeting.
D. General Agenda:
   1. Review minutes of previous meetings.
   2. Review of past week's work progress.
   3. Review Construction Schedule. Identify items adversely affecting schedule and corrective measures needed to maintain Schedule.
   4. Review proposed work for week following meeting
   5. Review field observations, problems, and decisions.
   6. Review of submittals schedule and status of submittals.
   7. Review of off-site fabrication and delivery schedules.
   8. Changes: Change orders, R.F.I.'s
E. Contractor will provide a conference report and distribute copies within two days after meeting to participants, Architect and Owner. Owner and Architect will distribute copies to others as they require.

1.5 PRE-INSTALLATION MEETINGS

A. When required in individual specification sections, Contractor shall convene pre-installation meetings at Project site prior to commencing work of specific section.
B. Require attendance of parties directly affecting, or affected by, Work of specific section.
C. Notify Architect four days in advance of meeting date.
D. Prepare agenda and preside at meeting:
   1. Review conditions of installation, preparation and installation procedures.
   2. Review coordination with related work.
E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, and those affected by decisions made.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

A. Employ skilled and experienced installer to perform cutting and patching.
B. Submit written request in advance of cutting or altering elements affecting:
   1. Structural integrity of element.
   2. Integrity of weather-exposed or moisture-resistant elements.
   3. Efficiency, maintenance, or safety of element.
   4. Visual qualities of sight exposed elements.
   5. Work of Owner or separate contractor.
C. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:
   1. Fit the several parts together, to integrate with other Work.
   2. Uncover Work to install or correct ill-timed Work.
   3. Remove and replace defective and non-conforming Work.
   4. Remove samples of installed Work for testing.
   5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
D. Execute work by methods to avoid damage to other Work, and to provide proper surfaces to receive patching and finishing.
E. Cut masonry and concrete materials using masonry saw or core drill.
F. Restore Work with new products in accordance with requirements of Contract Documents.
G. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
H. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07840, to full thickness of penetrated element.
J. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
K. Identify hazardous substances or conditions exposed during the Work to Architect for decision or remedy.

3.2 SPECIAL PROCEDURES

A. Materials: As specified in product sections; match existing with new products and salvaged products for patching and extending work.
B. Employ original, skilled and experienced installer to perform alteration work.
C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.
D. Remove unsuitable material not marked for salvage, including rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
E. Remove debris and abandoned items from area and from concealed spaces.
F. Prepare surface and remove surface finishes to permit installation of new work and finishes.
G. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.

H. Remove, cut, and patch Work in manner to minimize damage and to permit restoring products and finishes to original or specified condition.
I. Refinish existing visible surfaces to remain in renovated rooms and spaces, to renewed condition for each material, with neat transition to adjacent finishes.
J. Where new Work abuts or aligns with existing, provide smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
K. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to Architect for review.
L. Where change of plane of 1/4 inch or more occurs, submit recommendation for providing smooth transition; to Architect for review.
M. Trim existing doors to clear new floor finish. Refinish trim to original condition.
N. Provide all new fasteners and required installation accessories required to install salvaged items.
O. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
P. Finish surfaces as specified in individual product sections.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Submittal procedures.
B. Construction progress schedules.
C. Proposed products list.
D. Product data.
E. Shop drawings.
F. Samples.
G. Test reports.
H. Certificates.
I. Manufacturer's instructions.
J. Erection drawings.

1.2 SUBMITTAL PROCEDURES

A. Transmit each submittal electronically with transmittal form.
B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
C. On transmittal form Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
D. Apply Contractor's stamp, signed or initialed, certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents, prior to submission to Architect for approval.
E. Schedule submittals to expedite Project, and deliver to Architect at business address. Coordinate submission of related items.
F. For each submittal for review, allow seven days excluding delivery time to and from Contractor.
G. If deviations from the Contract Documents are shown on the submittal accompany the submittal with a letter on the Contractor’s letterhead identifying the specifics of the deviation(s). Explain why acceptance of the deviations by the Architect are of benefit to the Owner’s interests.
H. Allow space on submittals for Contractor and Architect review stamps.
I. When revised for resubmission, identify changes made since previous submission.
J. Distribute copies of reviewed submittals as appropriate to completion of the Work. Instruct parties to promptly report inability to comply with requirements.
K. Submittals not requested will not be recognized or processed.

1.3 CONSTRUCTION PROGRESS SCHEDULES

A. Submit initial schedules within 10 days after date of Owner-Contractor Agreement. After review, resubmit required revised data within ten days.
B. Submit revised Progress Schedule with each Application for Payment. Show how modifications to schedule will complete the Work at the date of completion shown in the Owner-Contractor agreement.
C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
E. Submit computer generated horizontal bar chart with separate line for each major portion of Work or operation section of Work, identifying first work day of each week.

F. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
G. Indicate estimated percentage of completion for each item of Work at each submission.
H. Revisions To Schedules:
   1. Indicate progress of each activity to date of submittal, and projected completion date of each activity
   2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes
   3. Prepare narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect including effect of changes on schedules of separate contractors.

1.4 PROPOSED PRODUCTS LIST

A. Within 20 days after date of Owner-Contractor Agreement, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.5 PRODUCT DATA

A. Product Data: Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
B. Submit “pdf” files to Contractor and Architect.
C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
E. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01700.

1.6 SHOP DRAWINGS

A. Shop Drawings: Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
C. Submit P.D.F.’s, electronically.
D. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01700.

1.7 SAMPLES

A. Samples: Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
B. Samples For Selection as Specified in Product Sections:
   1. Submit to Architect for aesthetic, color, or finish selection.

2. Submit samples of finishes from full range of manufacturers' standard colors, textures, and patterns for Architect selection. Submit samples in custom colors, textures and patterns when requested.

C. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

D. Include identification on each sample, with full Project information.

E. Submit number of samples specified in individual specification sections; Architect will retain two samples.

F. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes described in Section 01700.

1.8 TEST REPORTS

A. Submit for Architect's knowledge as contract administrator or for Owner.

B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.9 CERTIFICATES

A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to Architect, in quantities specified for Product Data.

B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Architect.

1.10 MANUFACTURER'S INSTRUCTIONS

A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to Architect for delivery to Owner in quantities specified for Product Data.

B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.14 ERECTION DRAWINGS

A. Submit drawings for Architect's benefit as contract administrator or for Owner.

B. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

C. Data indicating inappropriate or unacceptable Work may be subject to action by Architect or Owner.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Quality control and control of installation.
B. Tolerances
C. References.
D. Mock-up requirements.
E. Testing and inspection services.
F. Examination.
G. Preparation.

1.2 QUALITY CONTROL AND CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
B. Comply with manufacturers' instructions, including each step in sequence.
C. When manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
E. Perform Work by persons qualified to produce required and specified quality.
F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard, except when more rigid requirements are specified or are required by applicable codes.
B. Conform to reference standard by date of issue current on date of Contract Documents, except where specific date is established by code.
C. Obtain copies of standards where required by product specification sections.
D. When specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
E. Neither contractual relationships, duties, nor responsibilities of parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in reference documents.

1.5 MOCK-UP REQUIREMENTS

A. Tests will be performed under provisions identified in this section and identified in respective product specification sections.
B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
C. Accepted mock-ups shall be comparison standard for remaining Work.
D. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so by Architect.

1.6 TESTING AND INSPECTION SERVICES

A. At owner's discretion, owner will employ and pay for specified services of an independent firm to perform testing and inspection, to include tests and inspections described in Specification sections and Special Inspections and Testing required by building department.
B. Testing, inspections and source quality control may occur on or off project site. Perform off-site testing as required by Architect or Owner.
C. Reports will be submitted by independent firm to Architect, Owner and Contractor, in duplicate , indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
D. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
    1. Notify Architect and independent firm 24 hours prior to expected time for operations requiring services.
    2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
F. Testing and employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
G. Re-testing or re-inspection required because of non-conformance to specified requirements shall be performed by same independent firm on instructions by Architect. Payment for re-testing or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum.
H. Agency Responsibilities:
    1. Test samples of mixes submitted by Contractor.
    2. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
    3. Perform specified sampling and testing of products in accordance with specified standards.
    4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
    5. Promptly notify Architect and Contractor of observed irregularities or non-conformance of Work or products.
    6. Perform additional tests required by Architect/Engineer.
    7. Attend preconstruction meetings and progress meetings if required

I. Agency Reports: After each test, promptly submit two copies of report to Architect and to Contractor. When requested by Architect, provide interpretation of test results. Include the following:
    1. Date issued.
    2. Project title and number.
    3. Name of inspector.

4. Date and time of sampling or inspection.
5. Identification of product and specifications section.
6. Location in Project.
7. Type of inspection or test.
8. Date of test.
9. Results of tests.
10. Conformance with Contract Documents.

J. Limits On Testing Authority:
1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Agency or laboratory may not approve or accept any portion of the Work.
3. Agency or laboratory may not assume duties of Contractor.
4. Agency or laboratory has no authority to stop the Work.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
C. Examine and verify specific conditions described in individual specification sections.
D. Verify utility services are available, of correct characteristics, and in correct locations.

3.2 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.
B. Seal cracks or openings of substrate prior to applying next material or substance.
C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

PART I GENERAL

1.1 SECTION INCLUDES

A. Temporary utilities:
   1. Electricity
   2. Lighting
   3. Telephone
   4. Email
   5. Water
   6. Sanitary facilities

B. Construction facilities
   1. Vehicular access
   2. Parking
   3. Progress cleaning and waste removal

C. Temporary controls:
   1. Barriers
   2. Security
   3. Noise control
   4. No Smoking

D. Removal of temporary utilities, facilities and controls

1.2 TEMPORARY ELECTRICITY

A. Contractor will be permitted to use existing electrical outlets in the building. Contractor shall take all reasonable measures to conserve electricity.

1.3 TEMPORARY LIGHTING

A. Provide temporary light fixtures until new permanent fixtures are operational.

1.4 TELEPHONE

A. Provide mobile telephone number for field supervisor assigned to this project.

1.5 EMAIL

A. Provide Email address for the Contractor's project manager

1.6 WATER SERVICE

A. Contractor will be permitted to use water outlets at existing building. Contractor shall take all reasonable measures to conserve water.

1.7 TEMPORARY SANITARY FACILITIES

A. Contractor will be permitted to use the restroom in the work area with the provision that they be kept in sanitary condition. Use privileges will be revoked if the facilities are abused.

1.8 VEHICULAR ACCESS

A. Site access by construction and delivery vehicles is on existing roadbeds.
B. Provide and maintain access to fire hydrants. Provide unimpeded access for emergency vehicles.
C. Clean daily paved surfaces of Public Rights-of-way soiled by operations of the Work.

1.9 PARKING

A. Parking on City streets is available on a first come, first served basis.
B. Contractor may purchase vendor parking permits from the SOU Parking Office to park in any SOU parking lot.
C. Repair areas used for construction operations to pre-construction conditions.

1.10 PROGRESS CLEANING AND WASTE REMOVAL

A. Maintain construction areas free of waste materials, debris, and rubbish. Maintain work areas in a clean and orderly condition.
B. Clean site and construction area daily of all debris produced by construction activities.

1.11 BARRIERS

A. Provide barriers to prevent entry and injury to persons not associated with the work of this contract. Maintain barriers during all non-working periods. Provide safety lighting where necessary to alert persons to the existence of such barriers.
B. Provide barriers to prevent unauthorized entry to construction areas. Provide barriers to protect from damage construction, materials and adjacent properties.
C. Provide protection for plants designated to remain. Replace damaged plants.
D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.12 SECURITY

A. Security Program: Protect Work and Owner's operations from theft, vandalism, and unauthorized entry. Maintain program throughout construction period until Owner occupancy.

1.13 NOISE CONTROL

A. Provide methods, means, and facilities to minimize noise produced by construction operations.

1.14 NO SMOKING

A. Smoking is not permitted within 25 feet of any SOU building.

1.15 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS

A. Remove temporary utilities, equipment, facilities and materials prior to Substantial Completion inspection.
B. Clean and repair damage caused by installation or use of temporary work.
C. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to pre-construction condition.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Products.
B. Product delivery requirements.
C. Product storage and handling requirements.
D. Product options.
E. Product substitution procedures.

1.2 PRODUCTS

A. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
B. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.
C. Furnish interchangeable components from same manufacturer for components being replaced.

1.3 PRODUCT DELIVERY REQUIREMENTS

A. Transport and handle products in accordance with manufacturer's instructions.
B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Store and protect products in accordance with manufacturers' instructions.
B. Store with seals and labels intact and legible.
C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
D. For exterior storage of fabricated products, place on sloped supports above ground.
E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
B. Products Specified by Naming One or More Manufacturers: Products of one of manufacturers named and meeting specifications.

C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for any manufacturer not named in accordance with the following article.

1.6 PRODUCT SUBSTITUTION PROCEDURES

A. Proposals for product substitutions will be accepted by the Architect for review until twenty days past the issuance of the Notice to Proceed.
B. Beyond the period for acceptance, proposals for product substitution may be considered if a specified product becomes unavailable through no fault of Contractor, or if a proposed product provides significant advantages for the Project or significant cost saving for the Owner.
C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents; or show how proposed substitution either enhances the Work or is a cost savings to the Owner without compromise to the Work.
D. A substitution request constitutes a representation that the submitter:
    1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
    2. Will provide same warranty for Substitution as for specified product.
    3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
    4. Waives claims for additional costs or time extension which may subsequently become apparent.
    5. Will reimburse Owner and Architect for review or redesign services associated with re-approval by authorities having jurisdiction.
E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals, without separate written request, or when acceptance will require revision to Contract Documents.
F. Approved substitutions will be listed in an addendum distributed to all bidders.
G. Substitution Request Form: Proposals for substitution must use the form on following page.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SUBSTITUTION REQUEST FORM FOLLOWS

SUBSTITUTION REQUEST FORM

TO: Kistler, Small, & White, AIA
545 A. Street
Ashland, OR 97520

PROJECT: **SOU RESTROOM REMODEL PACKAGE**
Ashland, Oregon

We hereby submit for your consideration the following product instead of the specified item for the above project:

Section	Paragraph	Specified Item
_____	_____	_____

Proposed Substitution:_____

Attach complete technical data, including laboratory tests, if applicable.
Include complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.

Fill in blanks below:

A. Does the substitution affect dimensions shown on Drawings?
B. The Undersigned agrees to pay for changes to the building design, including engineering and detailing costs caused by the requested substitution.
C. What affect does substitution have on other trades?
D. Differences between proposed substitution and specified item?_____

_____

E. Manufacturer's guarantees of the proposed and specified items are:
[ ] Same [ ] Different (explain on attachment)

The Undersigned states that the function, appearance, quality and building codes compliance are equivalent or superior to the specified item.

Submitted by:

_____
Signature

Firm_____

Date_____

Telephone (____) _____

Fax (____) _____

For Use by Design Consultant:

[ ]Accepted [ ]Accepted as Noted

[ ]Not Accepted [ ]Received too Late

By _____

Remarks_____

_____

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Closeout procedures.
B. Final cleaning.
C. Starting of systems.
D. Demonstration and instructions.
E. Protecting installed construction.
F. Project record documents.
G. Operation and maintenance data.
H. Manual for materials and finishes.
I. Manual for equipment and systems.
J. Spare parts and maintenance products.
K. Product warranties and product bonds.

1.2 CLOSEOUT PROCEDURES

A. When the Work is complete submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect review.
B. Provide to Architect submittals required by the Project Manual and by authorities having jurisdiction of the Work.
C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
D. Owner will occupy portions of building as specified in Section 01100.
E. Completion of all requirements of this Section is a prerequisite to the Owner's issuing final payment.

1.3 FINAL CLEANING

A. Execute final cleaning prior to final project assessment.
B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
C. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.
D. Replace filters of equipment operated during construction.
E. Clean debris from roofs, gutters, downspouts, and drainage systems.
F. Clean site; sweep paved areas, rake clean landscaped surfaces.
G. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.4 STARTING OF SYSTEMS

A. Two weeks prior to start-up of any mechanical equipment and systems, create a list of all such items scheduled for start-up and present to Owner and Architect. Show anticipated date of start-up for each item.
B. Notify Architect and Owner seven days prior to start-up of each item of equipment and system.

C. Verify that each piece of equipment or system has been inspected for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
D. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
E. Verify that wiring and support components for equipment are complete and tested.
F. Execute start-up under supervision of applicable manufacturer's representative and Contractors' personnel in accordance with manufacturers' instructions.
G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
H. Submit a written report in accordance with Section 01330 that equipment or system has been properly installed and is functioning correctly.

1.5 DEMONSTRATION AND INSTRUCTIONS

A. Schedule with the Owner periods of demonstration and instruction convenient to Owner's staff and Contractor and subcontractors. At each period of instruction and demonstration obtain names, titles and signatures of attendees.
B. Demonstrate operation of equipment and controls and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.
C. Use operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance, and seasonal adjustments required.
D. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed time, at equipment location.
E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

1.6 PROTECTING INSTALLED CONSTRUCTION

A. Protect installed Work and provide special protection where specified in individual specification sections.
B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
F. Prohibit traffic from landscaped areas.

1.7 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work:
    1. Drawings.
    2. Specifications.
    3. Addenda.

4. Change Orders and other modifications to the Contract.
5. Reviewed Shop Drawings, Product Data, and Samples.
6. Manufacturer's instruction for assembly, installation, and adjusting.

B. Ensure that entries showing revisions to the original Documents are complete and accurate, enabling future reference by Owner.
C. Store record documents separate from documents used for construction.
D. Record information concurrent with construction progress, not less than weekly.
E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
1. Manufacturer's name and product model and number.
2. Product substitutions or alternates utilized.
3. Changes made by Addenda and modifications.

F. Record Drawings: Legibly mark each item to record actual construction including:
1. Measured depths of foundations in relation to finish main floor datum.
2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
4. Field changes of dimension and detail.
5. Details not on original Contract drawings.
G. Submit documents to Architect with claim for final Application for Payment.

1.8 OPERATION AND MAINTENANCE DATA INCLUDING EQUIPMENT & FINISHES

A. Submit data bound in 8-1/2 x 11 inch side ring binders with durable plastic covers. Submit one copie of each binder.
B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of Project , and subject matter of binder when multiple binders are required.
C. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
D. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
E. Contents: Prepare Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
a. Significant design criteria.
b. List of equipment.
c. Parts list for each component.
d. Operating instructions.
e. Maintenance instructions for equipment and systems.
f. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
3. Part 3: Project documents and certificates, including the following:

a. Shop drawings and product data.
b. Air and water balance reports.
c. Certificates.
d. Photocopies of warranties and bonds.

F. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
G. Submit one copy of completed volumes 15 days prior to final inspection. Draft copy be reviewed and returned after final inspection, with Architect comments. Revise content of document sets as required prior to final submission.
H. Submit two sets of revised final volumes in final form within 10 days after final inspection.
I. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Include information for re-ordering custom manufactured products.
J. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
K. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
L. Additional Requirements: As specified in individual product specification sections.
M. Include listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

N. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
O. Submit one copy of completed volumes 15 days prior to final inspection. Draft copy be reviewed and returned [after final inspection], with Architect comments. Revise content of document sets as required prior to final submission.
P. Submit two sets of revised final volumes in final form within 10days after final inspection.
Q. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
R. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
S. Include color coded wiring diagrams as installed.
T. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and special operating instructions.
U. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
V. Include servicing and lubrication schedule, and list of lubricants required.
W. Include manufacturer's printed operation and maintenance instructions.
X. Include sequence of operation by controls manufacturer.
Y. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
Z. Include control diagrams by controls manufacturer as installed.

AA. Include Contractor's coordination drawings, with color coded piping diagrams as installed.
BB. Include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
CC. Include list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
DD. Include test and balancing reports as specified in Section 01400.
EE. Additional Requirements: As specified in individual product specification sections.
FF. Include listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.

1.9 PRODUCT WARRANTIES AND PRODUCT BONDS

A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.
B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
C. Verify documents are in proper form, contain full information, and are notarized.
D. Co-execute submittals when required.
E. Include Table of Contents and assemble in three D side ring binder with durable plastic cover.
F. Submit prior to final Application for Payment.
G. Time Of Submittals:
    1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
    2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
    3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

PART 2 PRODUCTS

NOT USED

END OF SECTION

SECTION 02225

MINOR DEMOLITION FOR REMODELING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Demolishing designated building equipment and fixtures.
   2. Demolishing designated construction.
   3. Cutting and alterations for completion of the Work.
   4. Removing designated items for reuse and Owner's retention.
   5. Protecting items designated to remain.
   6. Removing demolished materials.

B. Related Sections:
   1. Section 01100 - Summary

1.2 SUBMITTALS

A. Section 01330 - Submittal Procedures: Requirements for submittals.

B. Demolition Schedule: Indicate overall schedule and interruptions required for utility and building services.

1.3 CLOSEOUT SUBMITTALS

A. Section 01700 - Execution Requirements: Requirements for submittals.

B. Project Record Documents: Accurately record actual locations of capped utilities, concealed utilities discovered during demolition, and subsurface obstructions.

C. Operation and Maintenance Data: Submit description of system, inspection data, and parts lists.

1.4 QUALITY ASSURANCE

A. Conform to applicable code for demolition work, dust control, products requiring electrical disconnection and re-connection.

B. Conform to applicable code for procedures when hazardous or contaminated materials are discovered.

C. Obtain required permits from authorities having jurisdiction.

D. Perform Work in accordance with State of Oregon Public Work's standard.

1.5 PRE-INSTALLATION MEETINGS

A. Section 01300 - Administrative Requirements: Pre-installation meeting.

B. Convene minimum one week prior to commencing work of this section.

1.6 SEQUENCING

A. Section 01100 - Summary: Requirements for sequencing.

B. Owner will conduct salvage operations before demolition begins to remove materials Owner chooses to retain.

1.7 SCHEDULING

A. Schedule Work to coincide with new construction.

B. Cooperate with Owner in scheduling noisy operations and waste removal that may impact Owners operation and work in adjoining spaces.

C. Perform noisy, malodorous, and dusty work:
   1. Coordinate scheduling with Owner.

D. Coordinate utility and building service interruptions with Owner.
   1. Do not disable or disrupt building fire or life safety systems without three days prior written notice to Owner.
   2. Schedule tie-ins to existing systems to minimize disruption.
   3. Coordinate Work to ensure fire sprinklers, fire alarms, smoke detectors, emergency lighting, exit signs and other life safety systems remain in full operation in occupied areas.

1.8 PROJECT CONDITIONS

A. Conduct demolition to minimize interference with adjacent and occupied building areas.

B. Cease operations immediately if structure appears to be in danger and notify Architect/Engineer. Do not resume operations until directed.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 PREPARATION

A. Mark location and termination of utilities.

B. Erect, and maintain temporary barriers and security devices, including warning signs and lights, and similar measures, for protection of the public, Owner and existing improvements indicated to remain.

C.

D. Erect and maintain temporary partitions to prevent spread of dust, odors, and noise to permit continued Owner occupancy.

E. Prevent movement of structure; provide temporary bracing and shoring required to ensure safety of existing structure.

F. Provide appropriate temporary signage including signage for exit or building egress.

G. Do not close or obstruct building egress path.

H. Do not disable or disrupt building fire or life safety systems without (3) three days prior written notice to Owner.

3.2 DEMOLITION

A. Conduct demolition to minimize interference with adjacent and occupied building areas.

B. Maintain protected egress from and access to adjacent existing buildings at all times.

C. Do not close or obstruct roadways and sidewalks.

D. Cease operations immediately when structure appears to be in danger and notify Architect/Engineer.

E. Disconnect and remove designated utilities within demolition areas.

F. Cap and identify abandoned utilities at termination points when utility is not completely removed. Annotate Record Drawings indicating location and type of service for capped utilities remaining after demolition.

G. Demolish in orderly and careful manner. Protect existing improvements, supporting structural members and all components necessary for the continued operation of the facilties.

H. Carefully remove building components indicated to be reused.
   1. Disassemble components as required to permit removal.
   2. Package small and loose parts to avoid loss.
   3. Mark components and packaged parts to permit reinstallation.
   4. Store components, protected from construction operations, until reinstalled.

I. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.

J. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.

K. Remove temporary Work.

3.3 SCHEDULES

A. Remove, store and protect the following materials and equipment:
   1. As indicated in the Drawings and Specifications.

B. Protect the following materials and equipment remaining:
   1. As indicated in the Demolition drawings.

C. Demolish the following materials and equipment:
   1. As indicated in the Demolition drawings.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes; miscellaneous framing and sheathing; concealed wood blocking for support of toilet and bath accessories, wood trim, and miscellaneous specialties.
B. Section includes infiltration barrier and rough hardware.
C. Related Sections:
   1. Section 06200 - Finish Carpentry.
   2. Section 09900 - Painting: Priming.
   3. Division 10 - Specialties: Specialties backing requirements.

1.2 REFERENCES

A. American National Standards Institute:
   1. ANSI A 135.4 - Basic Hardboard.
   2. ANSI A208.1 - Mat-Formed Wood Particle Board.
B. American Wood-Preservers' Association:
   1. AWPA C1 - All Timber Products - Preservative Treatment by Pressure Process.
   2. AWPA C20 - Structural Lumber - Fire-Retardant Treatment by Pressure Processes.
C. National Institute of Standards and Technology:
   1. NIST PS 20 - American Softwood Lumber Standard.
D. Western Wood Products Association:
   1. WWPA G-5 - Western Lumber Grading Rules.
E. NFPA - National Forest Products Association: National Design Specification for Wood Construction.
F. APA - American Plywood Association Grading Rules.

1.3 QUALITY ASSURANCE

A. Perform Work in accordance with the following:
   1. Lumber Grading Agency: Certified by NIST PS 20.
   2. Wood Structural Panel Grading Agency: APA.
   3. Comply with requirements of the 2010 Oregon Structural Specialty Code.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Section 01600 - Product Requirements: Product storage and handling requirements.
B. Protect trusses from warping or other distortion by stacking in vertical position, braced to resist movement.

PART 2 PRODUCTS

2.1 LUMBER MATERIALS

A. Grading Rules: WWPA, unless otherwise noted.

B. All structural wood members shall be Coast Region Douglas Fir No, 2 or Better Grade fb as noted in National Design Specifications for Stress Grade Lumber and its fastenings, unless noted otherwise. 19% Maximum moisture content for lumber 2 inches or less nominal thickness.

C. Sills, roof curbs, cants, crickets and lumber in contact with earth, masonry or concrete: No. 2 and better, Douglas Fir, S4S pressure treated.

2.2 SHEET MATERIALS

A. Grade Rules: American Plywood Association (APA).

B. Roof Sheathing: APA Span-Rated Sheathing, Exposure 1, Grade C-D, exterior glue, square edges, unsanded. See structural drawings for span ratings and thicknesses.

C. Wall Sheathing and Miscellaneous Plywood: APA Rated Sheathing, Exposure 1, Grade C-D, exterior glue, square edges, 15/32 inch thick, unless noted otherwise. Provide 3/4 inch thick plywood phone board.

D. Floor Sheathing: APA Span-Rated Sheathing 48/24, Structural I, Exterior Grade C-D, 1-1/18 inch thick T&G and 3/4 inch T&G, square edge where noted.

E. Stage Finish Floor: Hardboard meeting requirements of ANSI A135.4 Class I Tempered S1S pressed lignocellulosic fiber with resin binder.

F. Medium Density Fiberboard: Weyerhaeuser Fiberwood or equal, thickness noted.

2.5 ROUGH HARDWARE AND ACCESSORIES

A. General: Hot-dipped galvanized steel for exterior, high humidity and treated wood locations; plain finish elsewhere; size and type to suit conditions. Simpson “Strong-Tie” or approved. All butted wood members shall be attached with steel connectors.

B. Nails and Bolts: Size and spacing in accordance with UBC and Reference Standards. Washers shall be used under all bolt heads and nuts bearing on wood. Fasten wood panel shear walls in accordance with drawings.

C. Drywall Screws: Bugle head, hardened steel, power driven type, length to achieve full penetration of sheathing substrate.

D. Anchors: Expansion shield and lag bolt type for anchorage to solid masonry or concrete. Bolt or ballistic fastener for anchorages to steel.

E. Adhesive: Franklin Titebond II or approved. APA specifications AFG-1.

2.6 SILL GASKET

A. 1/4 inch thick plate-width polyethylene foam strip from continuous rolls.

2.7 WOOD PRESERVATIVE

A. Wood Preservative (Pressure Treatment): AWPA Treatment C1 using water borne preservative with 0.25 percent retainage.

B. Wood Preservative (Surface Application): Colored, 5% pentachlorophenol type.

PART 3 EXECUTION

3.1 TOLERANCES

A. Framing Members: 1/4 inch maximum from true position.

B. Surface Flatness of Floor: 1/4 inch in 10 feet maximum.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes custom-fabricated cabinet units; counter tops; cabinet hardware; preparation for installing utilities in cabinets; and finishing.

1.2 SUBMITTALS

A. Section 01330 - Submittal Procedures: Submittal procedures.

B. Shop Drawings: Indicate materials, component profiles and elevations, assembly methods, joint details, fastening methods, accessory listings, hardware location and schedule of finishes.

C. Product Data: Submit data for hardware accessories.

1.3 QUALITY ASSURANCE

A. Perform work in accordance with AWI (Architectural Woodwork Institute) Architectural Woodwork Quality Standards Illustrated, Premium Grade. WI (Woodwork Institute) Manual of Millwork, Premium Grade.

B. Surface Burning Characteristics: Maximum 75/450 flame spread/smoke developed index when tested in accordance with ASTM E84.

1.4 QUALIFICATIONS

A. Fabricator: Company specializing in performing Work of this section with minimum three years documented experience.

PART 2 PRODUCTS

2.1 CUSTOM CABINETS

A. Fabricators:
   1. Custom Cabinet Shop: Member of AWI or WIC, with min. 10 years experience and complete knowledge of AWI standards.

2.2 MATERIALS

A. Provide materials that comply with reference standard and specified requirements.

B. Formaldehyde Free: composite wood products with no added formaldehyde, made without urea-formaldehyde adhesives or binders.

C. Lumber: Western soft maple, plain sawn.

D. Maple Veneer: Plain sliced Western soft maple, HPVA Grade A.

E. Particleboard: ANSI A208.1 Grade M-2, moisture resistant.

F. Hardboard: ANSI/AHA A135.4

G. Medium Density Fiberboard (MDF): ANSI/AHA A208.2, Class MD, formaldehyde-free. Sierra Pine Medite ll.

H. Medium Density Fiberboard, Exterior (MDF-X) ANSI/AHA A208.2, Class MD-Exterior, formaldehyde-free moisture resistant. Sierra Pine Medex.

I. Softwood Plywood: PS 1, APA shope grade except APA Marine MDO where “Marine” is indicated. No added Formaldehyde.

J. HPDL, High Pressure Decorative Laminate: NEMA LD 3 and the following patterns and colors: Standard Colors by Architect/Owners.

K. TDO: Thermoset Decorative Overlay: Thermally fused, melamine-impregnated paper complying with LMA SAT-1 on base specified in this Section. Color: Off-White.

L. PVC Edge Banding: 3mm PVC 1. Product Woodtape,

M. Glass: ¼” thick full tempered clear glass, complying with Sec 088000, ground and polished edges, prepared for hardware indicated in this Section and in Drawings.

N. Drawer and Door Pulls: Extruded aluminum pull, full width of drawer, satin finish.

O. Cabinet Locks: Keyed cylinder, two keys for each lock, master keyed, steel with satin finish. Catches: Magnetic.

P. Drawer Slides: Galvanized steel construction, ball bearings separating tracks, full extension type.

Q. Hinges: Knuckle disappearing type, steel with satin finish.

R. Sliding Door Track Assemblies: Galvanized steel construction, ball bearing carriers fitted within tracks, multiple pendant suspension attachments for door.

2.7 Fabrication

A. Wood Moisture Content: Comply with requirements of referenced quality standard for moisture content of lumber in relation to relative humidity conditions existing during time of fabrication and installation areas.

B. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:

1. Corners of cabinets and edges of solid wood (lumber) members less than 1" in nom. thickness: 1/16"

2. Edges of rails and similar members more than 1 inch nominal thickness: 1/8".

C. Complete fabrication, including assembly, finishing, and hardware application, before shipment to project site to maximum extent possible. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.

D. Factory-cut openings, to maximum extent possible, to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Field cutting of sink and grommet cutouts allowed. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Smooth edges of cutouts and, where located in countertops and similar exposures, seal edges of cutouts with a water resisting coating.

F. Edges of Components: Pressure bonded to core with waterproof, hot melt adhesive at exposed and semi-exposed edges.

1. HPDL laminated cabinets: HPDL edges.

2. Wood Veneer Laminated Cabinets: 1/4 inch thick woods, species, cut and finish matching adjacent face.

2.8 COUNTERTOP FABRICATION, GENERAL

A. Comply with AWI Section 400, Division 400C Premium grade unless indicated otherwise.

B. Solid Surface Materials: Comply with Manufacturer's instructions.

C. Counter Mounted Fixtures': Prepare countertops in shop for field cutting openings for counter-mounted fixtures. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.

D. Fittings: Drill countertops in shop for plumbing fittings, under-counter soap dispensers, and similar items.

E. Provide 3/4 inch thick marine plywood sub-top and metal supports where no base cabinets support countertop. Metal supports indicated in Drawings, fabricated per Section 055000, opaque paint finish per Section 099000.

F. Counter-top Support: Provide metal supports indicated in Drawings. Comply with Section 055000.

2.9 LAMINATED COUNTERTOPS

A. Grade: Premium.

B. Core: MDF-X or marine plywood, 3/4 inch thick with 1-1/2 inch built-up edges.

C. HPDL Finish:

1. Exposed surfaces: HGS/HFS (0.050-inch nominal thickness). 2. Balance Sheet: 0.020 –inch thick minimum, matching top color where exposed.

2. Provide self-edge unless wood edge is indicated in Drawings.

E. Splashes: HPDL VGS or HGS or wood veneer, scribe top edge to wall.

1. Finish shall match top.

2. 4” high unless indicated otherwise.

PART 3 – EXECUTION

3.1 PREPARATON

A. Before installing casework, examine shop-fabricated work for completion and complete work as required. Measure all areas for scribe fit.

3.2 INSTALLATION

A. Comply with AWI Section 1700 for specified grade, and the following:

B. Install casework plumb, level, true, and straight with no distortions. Shim as required with concealed shims. Install to a tolerance of 1/8” in 8’-0” for plumb and level (including tops) and with no variations in flushness of adjoining surfaces.

C. Scribe and cut casework to fit adjoining work and refinish cut surfaces or repair damaged finish at cuts.

3.3 ADJUSTMENT AND CLEANING

A. Repair damaged and defective casework where possible to eliminate defects functionally and visually; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.

B. Clean, lubricate and adjust hardware.

C. Clean casework on exposed and semi-exposed surfaces Touch up factor-applied finishes to restore damaged or soiled areas.

3.4 PROTECTION

A. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and installer, that insures that casework is being without damage or deterioration at time of Substantial Completion.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes sealants and joint backing, pre-compressed foam sealers, hollow gaskets, and accessories.

1.2 QUALITY ASSURANCE

A. Maintain one copy of each referenced document covering installation requirements on site.

1.3 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum ten years documented experience.

B. Applicator: Company specializing in performing Work of this section with minimum ten years documented experience, and approved by manufacturer.

PRODUCTS

A. Exterior Building Joint Sealant: Dow Corning 795, for vertical joints, including:

1. Panel joints, joints between products, and joints in sheet metal fabrications.

B. Exterior Building Joint Sealant, non-bleeding: Dow Corning 756 SMS. Use in contact with stone or ceramic tile to assure no bleeding. Provide non-staining warranty.

C. Exterior Pavement Joint Sealant: Sonneborn SL-2, 2-part Urethane.

D. Interior Horizontal Concrete Joint Sealant: Sonneborn Epolith-P, 2-part epoxy.

E. Interior Vertical Joint Sealant: Sonneborn Sonolac, 1-part acrylic

F. Interior Toilet Room Sealant: GE Sanitary 1700 or Dow 786, silicone.

G. Interior Acoustical Joint Sealant: Non-drying, non-hardening, non-skinning, non-staining, gunnable, synthetic rubber sealant formulated for sealing interior concealed joints to reduce transmission of airborne sound, complying with ASTM C919. Protective Treatments, Inc. PTI 808 Acoustical Sealant.

H. Colors: Selected from full range.

1.4 ACCESSORIES

A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.

B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.

C. Joint Backing: Round foam rod compatible with sealant; ASTM D1056, sponge or expanded rubber D1667, closed cell PVC; oversized 30 to 50 percent larger than joint width.

D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 2 EXECUTION

2.1 EXAMINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.

B. Verify substrate surfaces, and joint openings are ready to receive work.

C. Verify joint backing and release tapes are compatible with sealant.

2.2 PREPARATION

A. Remove loose materials and foreign matter impairing adhesion of sealant.

B. Clean and prime joints.

C. Perform preparation in accordance with ASTM C1193.

D. Protect elements surrounding Work of this section from damage or disfiguration.

2.3 INSTALLATION

A. Perform installation in accordance with ASTM C1193; Perform acoustical sealant application work in accordance with ASTM C919.

B. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.

C. Tool joints: concave.

D. Pre-compressed Foam Sealant: Do not stretch; avoid joints except at corners, ends, and intersections; install with face 1/8 to 1/4 inch below adjoining surface.

E. Compression Gaskets: Avoid joints except at ends, corners, and intersections; seal joints with adhesive; install with face 1/8 to 1/4 inch below adjoining surface.

2.4 CLEANING

A. Section 01700 - Execution Requirements: Final cleaning.

B. Clean adjacent soiled surfaces.

END OF SECTION

1 GENERAL

1.2_ SUMMARY

C. Section includes flush wood doors; flush and flush glazed configuration; fire rated and non-rated and wood gate.

D. Related Sections:
   1. Section 06200 - Finish Carpentry: Wood bi-fold door.
   2. Section 08111 - Steel Doors and Frames.
   3. Section 08710 - Door Hardware.
   4. Section 08800 - Glazing.

1.2 REFERENCES

A. American Society for Testing and Materials:
   1. ASTM E413 - Standard Classification for Rating Sound Insulation.

B. Architectural Woodwork Institute:
   1. AWI - Quality Standards Illustrated.

C. Hardwood Plywood and Veneer Association:
   1. HPVA HP-1 - American National Standard for Hardwood and Decorative Plywood.

D. National Fire Protection Association:
   1. NFPA 80 - Standard for Fire Doors, Fire Windows.
   2. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies.

E. Underwriters Laboratories Inc.:
   1. UL 10B - Fire Tests of Door Assemblies.
   2. UL - Building Materials Directory.

F. Uniform Building Code
   1. UBC Standard 7-2 - Fire Tests of Door Assemblies.

1.3 SUBMITTALS

A. Section 01330 - Submittal Procedures: Submittal procedures.

B. Shop Drawings: Illustrate door opening criteria, elevations, sizes, types, swings, undercuts required, special beveling, special blocking for hardware, factory machining criteria, factory finishing criteria, identify cutouts for glazing and louvers.

C. Product Data: Submit information on door core materials and construction, and on veneer species, type and characteristics.

D. Samples: Submit two samples of door veneer, 3 x 3 inch in size illustrating wood grain, stain color, and sheen.

E. Manufacturer's Installation Instructions: Submit special installation instructions.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with AWI Quality Standard Section 1300, Premium Grade.

B. Finish doors in accordance with AWI Quality Standard Section 1500.

C. Fire Door Construction: Conform to UL 10B.

D. Installed Fire Rated Door Assembly: Conform to NFPA 80 for fire rated class as scheduled.

E.

It is the intent of this specification to provide a general guideline for quality, function, and design of the Wood Doors and Frames. It is specific responsibility of Wood Doors and Frames Supplier to furnish products which are fully functional, in full compliance with State and Local Building Codes, Fire Codes, and Handicap Codes. Any supplier bidding on

this section of work will notify the Architect prior to bidding of discrepancies or will be assumed to have included correct material to make this compliance.

F. It shall be the Contractor's sole responsibility to measure each existing or new rough opening and overall wall thickness, including existing and proposed wall finishes, prior to fabrication of doors and frames.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Section 01600 - Product Requirements: Product storage and handling requirements.
B. Package, deliver and store doors in accordance with AWI Section 1300.
C. Protect doors with resilient packaging sealed with heat shrunk plastic. Do not store in damp or wet areas; or in areas where sunlight might bleach veneer. Seal top and bottom edges with tinted sealer when stored more than one week.
   1. Break seal on site to permit ventilation.

1.7 COORDINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Coordinate Work with door opening construction, door frame and door hardware installation.

1.8 WARRANTY

A. Section 01700 - Execution Requirements: Product warranties and product bonds.
B. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.
C. Furnish manufacturer's "Life of Installation" warranty for interior doors.

PART 2 PRODUCTS

1.2 FLUSH WOOD DOORS

A. Manufacturers:
   1. Mohawk Doors
   2. Parveneer Doors
   3. Weyerhaeuser Company.
   4. Vancouver Door.
   5. Substitutions: Section 01600 - Product Requirements.

A. Product Description: Solid core flush wood doors; wood veneer facing material; fire rated and non-rated types; flush glazed design; factory pre-fit; shop finished wood doors.
   1. Flush Interior Doors: 1-3/4 inches thick; solid hollow core, five ply construction, fire rated, as indicated on Drawings.
   2. Flush Interior Gate: 1-3/8 inch thick, solid core, five-ply construction.

2.2 COMPONENTS

A. Solid Core, Non-Rated: AWI Section 1300, Type PC - Particleboard.
B. Solid Core, Fire Rated: AWI Section 1300.

C. Interior Veneer Facing: AWI Premium quality wood, plain sliced, with pair end matched grain, for transparent finish.
   1. Wood: American Soft Maple
D. Facing Adhesive: Type I - waterproof.

2.4 FABRICATION

A. Fabricate non-rated doors in accordance with AWI Quality Standards requirements.
B. Fabricate fire rated doors in accordance with AWI Quality Standards and to UL requirements. Attach fire rating label to door.
C. Astragals for Fire Rated Double Doors: Steel, Treated wood, T shaped, overlapping and recessed at face edge at mid-door thickness, specifically for double doors.
D. Sound Rating For Single Door Leaf and Frame Assembly: ASTM E413, minimum STC 35.
E. Furnish lock blocks at lock edge and top of door for closer for hardware reinforcement.
F. Vertical Exposed Edge of Stiles: Of same species as veneer facing.
G. Fit door edge trim to edge of stiles after applying veneer facing.
H. Bond edge banding to cores.
I. Factory machine doors for finish hardware in accordance with hardware requirements and dimensions. Do not machine for surface hardware. Furnish solid blocking for through bolted hardware.
J. Factory fit doors for frame opening dimensions identified on shop drawings.
K. Cut and configure exterior door edge to receive recessed weather stripping devices.
L. Provide edge clearances in accordance with AWI 1300.

2.5 SHOP FINISHING

A. Factory finish doors in accordance with AWI Quality Standard Section 1500 to the following finish designations.
   1. Transparent Finish TR-6: Catalyzed polyurethane, Premium quality, satin sheen.
A. Factory finish doors in accordance with approved sample.
B. Seal door top edge with clear sealer to match door facing.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Verify opening sizes and tolerances are acceptable.
C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

3.2 INSTALLATION

A. Install fire rated and non-rated doors in accordance with AWI Quality Standard, NFPA 80, and to requirements for fire rating label by UL.
B. Trim non-rated door width by cutting equally on both jamb edges.
C. Trim door height by cutting bottom edges to maximum of 1/2 inch.
   1. Trim fire door height at bottom edge only, in accordance with fire rating requirements.
D. Machine cut doors for hardware installation.

E. Coordinate installation of doors with installation of frames specified in Section 08111 and hardware specified in Section 08710.
F. Coordinate installation of glass and glazing specified in Section 08800.

3.3 INSTALLATION TOLERANCES

A. Section 01400 - Quality Requirements: Tolerances.
B. Conform to AWI requirements for fit and clearance tolerances.
C. Conform to AWI Section 1300 requirements for maximum diagonal distortion.

3.4 ADJUSTING

A. Section 01700 - Execution Requirements: Testing, adjusting, and balancing.
B. Adjust door for smooth and balanced door movement.
C. Adjust closer for full closure.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Overhead coiling fire service doors.

1.2 RELATED SECTIONS

A. Section 05500 - Metal Fabrications: Support framing and framed opening.

B. Section 06200 - Finish Carpentry: Wood jamb and head trim.

C. Section 08710 - Door Hardware: Product Requirements for cylinder core and keys.

D. Section 09900 - Painting: Field applied finish.

E. Section 16130 - Raceway and Boxes: Conduit from electric circuit to door operator and from door operator to control station.

F. Section 16150 - Wiring Connections: Power to disconnect.

1.3 REFERENCES

A. ASTM A 653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

B. ASTM A 666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.

C. ASTM A 924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.

D. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

E. NEMA MG 1 - Motors and Generators.

F. NFPA-80 – Standard for Fire Doors and Fire Windows.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

A. Fire Rated Assemblies: Provide assemblies complying with NFPA 80 and listed in UL Directory or Intertek Testing Services (Warnock Hersey Listed) Directory.

1.5 SUBMITTALS

A. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Details of construction and fabrication.
   4. Installation methods.

B. Shop Drawings: Include detailed plans and elevations, details of framing members, anchoring methods, clearances, hardware, and accessories.

C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

E. Operation and Maintenance Data: Submit lubrication requirements and frequency, and periodic adjustments required.

1.6 WARRANTY

A. Manufacturer’s Warranty: Provide manufacturer’s two year limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Overhead Door Corp., 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: info@overheaddoor.com.

B. Substitutions: Submit substitution specification for Architect / Owner approval.

C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 OVERHEAD COILING FIRE SERVICE DOORS

A. Overhead Coiling Fire service Doors: FireKing Series 631 Fire Doors.
   1. Label: Provide fire doors certified with the following listing.
      a. Rolling fire doors up to 152 sf (14.12 sm) and 13 feet 6 inches (4.11 m) in width or height shall be labeled:
         1) UL 1-1/2 Hour Class B Label for non-masonry, masonry and steel fire walls.
      b. Provide UL labeled smoke protection where indicated. Comply with with UL label for "Leakage Rated Assembly" or "S" label.
         1) Comply with NFPA 105 air leakage requirements.
         2) Pass UL test procedure 1784.

2. Curtain: Interlocking roll-formed slats as specified following. Endlocks shall be attached to each end of alternate slats to prevent lateral movement.
    a. Curved profile type C-187, fabricated of 24 gauge galvanized steel.
3. Finish:
    a. Galvanized Steel: Slats and hood galvanized steel to ASTM A 653 finished with a rust-inhibitive roll coating process, including bonderizing, a 0.2 mils thick baked prime paint, and a 0.6 mils thick baked top coat : Brown Polyester
    b. Non-galvanized exposed ferrous surfaces shall be black powder coated.
    c. Stainless Steel slats shall be finished as follows.
        1) Finish: 2B mill finish.
4. Bottom Bar: Two black powder coated structural steel angles 1-1/2 inch by 1-1/2 inch by 1/8 inch (38 mm by 38 mm by 3 mm) minimum.
5. Bottom Bar: Two galvanized structural steel angles with PowderGuard Zinc Finish, 1-1/2 inch by 1-1/2 inch by 1/8 inch (38 mm by 38 mm by 3 mm) minimum.
6. Bottom Bar: Two stainless steel angles 1-1/2 inch by 1-1/2 inch by 1/8 inch (38 mm by 38 mm by 3 mm) minimum.
7. Guides: Roll-formed steel shapes attached to continuous steel wall angle for doors through 12 feet (3.65 m) wide. Guides for between jamb doors shall be structural angles.
    a. Finish: PowderGuard Weathered finish with iron/black powder.
    b. Finish: PowderGuard Zinc Finish for guides, bottom bar and head plate.
8. Brackets: To support counterbalance, curtain and hood
    a. Hot rolled steel with black powder coated finish.
    b. Hot rolled steel with PowderGuard Zinc finish.
9. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
10. Hood: 24 gauge galvanized primed steel.
    a. Crank operation.
11. Automatic Closure Standard Fire Door: UL approved release mechanism equipped with a 165 degree fusible link.
    a. Doors will be equipped with chain hoist release mechanism, requiring only one sash chain to be routed to the operated side (sash chain not required to be routed to adjusting wheel side.)
        1) Release mechanism includes planetary gear differential system.
        2) Door will close by a thermally actuated link rated @165 degrees F, or by an optional listed releasing device, or by manually activating the release handle.
        3) All counterbalance spring tension shall be maintained when the release mechanism is activated.
        4) After closing by manual activation of the release handle, the door shall be able to be reset by one person from one side of the door (re-engaging the release handle). No tools shall be required to reset the release mechanism.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify opening sizes, tolerances and conditions are acceptable.

B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.

C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install rolling counter fire doors in compliance with requirements of NFPA 80. Test fire-release system and reset components after testing.

C. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.

D. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.

E. Fit and align assembly including hardware; level and plumb, to provide smooth operation.

F. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07900.

G. Install perimeter trim and closures.

3.4 ADJUSTING

A. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.

B. Adjust hardware and operating assemblies for smooth and noiseless operation.

3.5 CLEANING

A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.

B. Remove labels and visible markings.

C. Touch-up, repair or replace damaged products before Substantial Completion.

3.6 PROTECTION

A. Protect installed products until completion of project.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes hardware for doors.
   1. Provide door gaskets, including weatherstripping and seals, and thresholds.
B. Related Sections:
   1. Section 08111 - Steel Doors and Frames.

1.2 REFERENCES

A. American National Standards Institute:
   1. ANSI A156.1 - Butts and Hinges.
   2. ANSI A156.2 - Bored and Preassembled Locks and Latches.
   3. ANSI A156.3 - Exit Devices.
   4. ANSI A156.4 - Door Controls - Closures.
   5. ANSI A156.8 - Door Controls - Overhead Holders.
   6. ANSI A156.13 - Mortise Locks and Latches.
   7. ANSI A156.14 - Sliding and Folding Door Hardware.
   8. ANSI A156.15 - Closer Holder Release Devices.
   9. ANSI A156.16 - Auxiliary Hardware.
   10. ANSI A156.18 - Materials and Finishes.
B. National Fire Protection Association:
   1. NFPA 80 - Standard for Fire Doors, Fire Windows.
   2. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies.
C. Underwriters Laboratories Inc.:
   1. UL 10B - Fire Tests of Door Assemblies.
   2. UL 305 - Panic Hardware.
   3. UL - Building Materials Directory.
D. Warnock Hersey:
   1. WH - Certification Listings.

1.3 PERFORMANCE REQUIREMENTS

A. Fire Rated Openings: Provide door hardware listed by UL or other testing laboratory approved by applicable authorities.
   1. Hardware: Tested in accordance with NFPA 252.

1.4 SUBMITTALS

A. Section 01330 - Submittal Procedures: Submittal procedures.
B. Shop Drawings:
   1. Indicate locations and mounting heights of each type of hardware, schedules, catalog cuts.
   2. Submit manufacturer's parts lists and templates.
      a. Submit to the Architect P.D.F. of all finish hardware proposed to be furnished for this Work, giving manufacturer's name and catalog number for each item. ONE COPY OF THE SCHEDULE SHALL CONTAIN CATALOG CUTS OF EACH SUPPLIED.
      b. List each opening and identify the manufacturer of each item; show hand, lock side, size, thickness and material of doors and frames; give manufacturer's complete catalog number for each item; show style and

finish of each item; show keying of all locks and locksets. Provide Shop Drawings for special made items.

c. The approval of the Hardware Schedule does not relieve Contractor of the responsibility of furnishing all hardware required for the project.

C. Manufacturer's Recommendations: Prior to installation, deliver to all installing personnel complete recommendations from the manufacturers regarding installation methods.

D. Samples:

1. Submit to the Architect, if requested, properly labeled samples of any items of Finish Hardware scheduled herein or listed in the Detailed Schedule of Hardware. Samples will be returned to the Contractor and then may be incorporated into the Work.

E. Provide Architect with manufacturer's parts list and maintenance instructions under provisions of Section 01700 for each type of hardware supplied and necessary wrenches and tools required for proper maintenance of hardware.

F. Manufacturer's Installation Instructions: Submit special procedures, and perimeter conditions requiring special attention.

1.5 CLOSEOUT SUBMITTALS

A. Section 01700 - Execution Requirements: Closeout procedures.

B. Project Record Documents: Record actual locations of installed cylinders and their master key code.

C. Operation and Maintenance Data: Submit data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.

D. Keys: Deliver with identifying tags to Owner by security shipment direct from hardware supplier.

1.6 QUALITY ASSURANCE

A. Perform Work in accordance with the following requirements:

1. ANSI A156 series.
2. NFPA 80.
3. UL 305.

1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

B. Hardware Supplier: Company specializing in supplying institutional door hardware with minimum three years documented experience.

C. Qualifications of Supplier:

1. Hardware supplier shall be, or have in his employment, a qualified Hardware Consultant who shall be available on a 24-hour notice at the jobsite by request of the Architect to consult, advise and assist in the installation of the Finish Hardware. He shall attend a Keying Conference with the Owner and Architect and provide a Keying Schedule resulting from this Conference.
2. At the completion of the project and prior to final job closeout, the Hardware Supplier Consultant shall visit the Project and inspect all Hardware as installed. He shall advise the Architect by letter that all Hardware is per specification, properly installed and correctly adjusted, or note matters that require correction.

3. Hardware Supplier shall be a Factory Direct Distributor for all products and services required for this Project and shall so certify in his Hardware schedule submittal.

D. It is the intent of this specification to provide general guidelines for the quality, function and design of the architectural finish hardware. It is the specific responsibility of the hardware supplier to furnish products which are fully functional, in full compliance with state and local building codes, fire codes and handicap codes. Any supplier bidding on this section of work will notify the Architect, prior to bidding, of discrepancies, or will be assumed to have included correct material to make this compliance.

E. Products Requiring Electrical Connection: Listed and classified by Underwriters' Laboratories, Inc., as suitable for purpose specified and indicated.

1.8 PRE-INSTALLATION MEETINGS

A. Section 01300 - Administrative Requirements: Pre-installation meeting.
B. Convene minimum one week prior to commencing work of this section.
C. Include persons involved with installation of doors, frames, and hardware.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Section 01600 - Product Requirements: Product storage and handling requirements.
B. Package hardware items individually with necessary fasteners, instructions, and installation templates, when necessary; label and identify each package with door opening code to match hardware schedule.

1.10 COORDINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Coordinate Work with other directly affected sections involving manufacture or fabrication of internal reinforcement for door hardware and recessed items.
   1. Provide templates or actual hardware as required to ensure proper preparation of doors and frames.
C. Sequence installation to accommodate required utility connections.
D. Coordinate Owner's keying requirements during course of Work.

1.11 WARRANTY

A. Section 01700 - Execution Requirements: Product warranties and product bonds.
B. Furnish two year manufacturer warranty for all hardware except surface closers which shall be guaranteed for 10 years.

1.12 MAINTENANCE MATERIALS

A. Section 01700 - Execution Requirements: Maintenance materials.
B. Furnish special wrenches and tools applicable for each different and for each special hardware component.
C. Furnish maintenance tools and accessories supplied by hardware component manufacturer.

1.13 KEYING

A. Coordinate meeting with Owner and prepare Key Schedule from information provided. Master, Grand Master key as directed by Owner to Owner's existing key system.

B. Furnish keys in the following quantities:

1.	10 each	Master Keys
2.	2 each	Change Keys each keyed core
3.	5 each	Construction Master Keys
4.	2 each	Control Keys

2 PRODUCTS

2.1 HARDWARE

A. Provide hardware and related accessories listed in the Schedule at the end of this Section, complete to function intended.

B. Doors and frames used in positive pressure opening assemblies shall meet UBC 7-2-97 and UL 10C in areas where this has been adopted by local authority having jurisdiction. This specification includes gasketing for smoke only. Intumescent gasketing to be provided with wood door assemblies Section 08210.

2.2 ACCEPTABLE MANUFACTURERS

A. Manufacturers:

PRODUCT	MANUFACTURER	APPROVED EQUAL
BUTTS	STANLEY	
LOCKSETS	SCHLAGE	
CLOSERS	LCN	
STOPS	IVES	
PUSH/PULLS	TRIMCO	
KICKPLATES	TRIMCO	
THRESHOLD	PEMKO	
GASKETS		

DOOR HARDWARE BRITT & McNEAL

3 EA	BUTTS FBB179 4.5 X 4.5	652 FINISH
1 EA	CLOSER 4011	LCN
1 EA	KICKPLATE 12 X 2 LDW	630 FINISH
1 EA	WALLSTOP WS407CCV	IVES
1 SET	GASKET PS074	
1 EA	PUSH PLATE 1001-3 4x16 TRIMCO	630 FINISH
1 EA	PULL 1017-3 TRIMCO	630 FINISH
1 EA	SCHLAGE B663 DEADBOLT	

DOOR HARDWARE ED/PSYCH

<u>NEW STORAGE ROOM AT BASEMENT.</u>

3 EA	BUTTS FBB179 4.5 X 4.5	652 FINISH
1 EA	WALLSTOP WS407CCV	IVES
1 EA	LOCK (SCHLAGE “D”) PROVIDED AND INSTALLED BY OWNER.	

<u>REPLACE EXISTING DOOR KNOBS</u> (BY SOU)

B. Furnish all hardware fastenings to metal, or other material requiring template hardware, to template so that all finish hardware and work of all trades will fit together in proper manner as intended by the Drawings and Specifications.

C. It shall be the responsibility of the Hardware Supplier to furnish complete information, templates and template hardware to special door and frame manufacturers for application at the factory, unless otherwise directed, and coordinate the hardware specified and to be furnished with these suppliers.

2.3 COMPONENTS

A. General Hardware Requirements: Where not specifically indicated, comply with applicable ANSI A156 standard for type of hardware required. Furnish each type of hardware with accessories as required for applications indicated and for complete, finished, operational doors.
   1. Templates: Furnish templates or physical hardware items to door and frame manufacturers sufficiently in advance to avoid delay in Work.
   2. Reinforcing Units: Furnished by door and frame manufacturers; coordinated by hardware supplier or hardware manufacturer.
   3. Fasteners: Furnish as recommended by hardware manufacturer and as required to secure hardware.
      a. Finish: Match hardware item being fastened.
   4. Fire Ratings: Provide hardware with UL listings for type of application involved.
   5. Electrical Devices: Make provisions and coordinate requirements for electrical devices and connections for hardware.

B. Design: All fasteners shall harmonize with the hardware as to material and finish.

2.4 FINISHES

A. US26D Dull Chrome, unless otherwise noted. Door closers shall be spray painted.

2.5 DOOR CLOSERS

A. All surface door closers shall be size as recommended by the manufacturer. Check degree of opening for all closers. Brackets or drop plates of proper type and size to be provided where necessary. No exposed fasteners.

B. It shall be the responsibility of the hardware supplier to verify the proper mounting of the closers.

2.6 DOOR SILENCERS

A. Three silencers for single doors, four for pairs of doors. GJ #65. Omit at doors with weatherstripping or draftseal.

2.7 HINGES

A. Provide non-removable pins on any outswinging, exterior door hinges.

2.8 DOOR STOPS

A. Door stops to be provided for all doors.

B. Stop numbers refer to types. Door stops are to be placed at point of contact. In certain locations, it may be advantageous to place stop on the door.
C. Substitute floor for wall or wall for floor stop where door function requires.

2.9 LOCK AND LATCH DESIGN

A. All keyed locks shall be 6 pin.
B. Strikes to have extended lip where required to protect trim from being marred by latch bolt.
C. For east of maintenance, it is mandatory that all cylindrical lock cylinders be furnished so cylinders can be removed without removing lock from door.
D. All lock chassis must be equipped with neoprene, or other material washer, under inside rose to prevent rose from loosening on the doors. It is also mandatory that a key to be used to remove cylinder know, whether in locked or unlocked position.
E. Backset: 2-3/4 inch standard, 3-3/4 inch where required to clear weatherstripping.

3 EXECUTION

3.1 EXAMINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Verify doors and frames are ready to receive door hardware and dimensions are as indicated on shop drawings.
C. Verify electric power is available to power operated devices and is of correct characteristics.

3.2 INSTALLATION

A. Coordinate mounting heights with door and frame manufacturers. Use templates provided by hardware item manufacturer.
B. Mounting Heights From Finished Floor to Center Line of Hardware Item: Comply with manufacturer recommendations and applicable codes where not otherwise indicated.
    1. Locksets: 38 inch.
    2. Push/Pulls: 42 inch.
    3. Dead Locks: 48 inch.
    4. Push Pad Type Exit Devices: 42 inch.
    5. Cross Bar Type Exit Devices: 38 inch.
    6. Top Hinge: Jamb manufacturer’s standard, but not greater than 10 inches from head of frame to center line of hinge.
    7. Bottom Hinge: Jamb manufacturer’s standard, but not greater than 12-1/2 inches from floor to center line of hinge.
    8. Intermediate Hinges: Equally spaced between top and bottom hinges and from each other.
    9. Hinge Mortise on Door Leaf: 1/4 inch to 5/16 inch from stop side of door.
C. The hardware supplier shall visit the job site and instruct the hardware installer in the proper use and interpretation of the Hardware Schedule and templates and shall instruct him in the proper installation of hardware at the time of delivery of the hardware and at whatever other times the Architect or General Contractor shall deem necessary.

3.3 FIELD QUALITY CONTROL

A. Section 01700 - Execution Requirements: Testing, adjusting, and balancing.
B. Architectural Hardware Supplier inspect installation and certify hardware and installation has been furnished and installed in accordance with manufacturer's instructions and as specified.

3.4 ADJUSTING

A. Section 01700 - Execution Requirements: Testing, adjusting, and balancing.
B. Adjust hardware for smooth operation.

3.5 PROTECTION OF INSTALLED CONSTRUCTION

A. Section 01700 - Execution Requirements: Protecting installed construction.
B. Do not permit adjacent work to damage hardware or hardware finish.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes gypsum board and joint treatment; cementitious backer board; smooth and textured finishes.
B. Related Sections:
   1. Section 06100 - Rough Carpentry: Building wood framing system.
   2. Section 07213 - Batt Insulation: Acoustic and Thermal insulation.

1.2 REFERENCES

A. American Society for Testing and Materials:
   1. ASTM C36 - Standard Specification for Gypsum Wallboard.
   2. ASTM C442 - Standard Specification for Gypsum Backing Board and Coreboard.
   3. ASTM C475 - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
   4. ASTM C630/C630M - Standard Specification for Water-Resistant Gypsum Backing Board.
   5. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board.
   6. ASTM C1002 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases.
B. Gypsum Association:
   1. GA 214 - Recommended Levels of Gypsum Board Finish.
   2. GA 216 - Application and Finishing of Gypsum Board.
C. Underwriters Laboratories Inc.:
   1. UL - Fire Resistance Directory.

1.3 PERFORMANCE REQUIREMENTS

A. Conform to applicable UBC code for fire rated assemblies in conjunction with Sections 06100 and 09111 as follows:
   1. Fire Rated Partitions: Listed assembly by UL.
   2. Fire Rated Ceiling and Soffits: Listed assembly by UL.
   3. Fire Rated Structural Column Framing: Listed assembly by UL.
   4. Fire Rated Structural Beam Framing: Listed assembly by UL.

1.4 SUBMITTALS

A. Section 01330 - Submittal Procedures: Submittal procedures.
B. Product Data: Submit data on gypsum board, joint tape and metal accessories.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ASTM C840.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

1 PRODUCTS

1.1 GYPSUM BOARD ASSEMBLIES

A. Manufacturers:
   1. G-P Gypsum Corp.
   2. National Gypsum Co.
   3. United States Gypsum Co.
   4. Domtar Gypsum
   5. Substitutions: Section 01600 - Product Requirements.

1.2 COMPONENTS

A. Framing Materials:
   1. 2x4 Wd. Studs or: Furring Channels: 25 gage galvanized steel, 7/8 inch deep by 2-9/16 inches wide USG Furring Channel DWC-25 with USG Metal Furring Clips.
   2. Reinforcing Channels: Cold-rolled 1-1/2 inch wide 16 gage steel lathing channels, black asphaltum painted.
   3. Steel Sheet Backing: 12 gage galvanized sheet steel.
   4. Fasteners: ASTM C1002, 1 inch Type 'S' Bugle Head for metal framing. 1 inch Type 'W' Bugle Head for wood framing.
   5. Hangar Wire: 9 gage galvanized annealed steel wire.
   6. Tie Wire: 18 gage galvanized annealed steel wire.

B. Gypsum Board Materials:
   1. Fire Rated Gypsum Board: ASTM C36; fire resistive type, UL rated; 5/8 inch thick, maximum available length in place; ends square cut, tapered and beveled edges.
   2. Moisture Resistant Gypsum Board: ASTM C630, 5/8 inch thick, maximum available length in place; ends square cut, tapered and beveled edges.
   3. Gypsum Backing Board: ASTM C442; fire rated type; 5/8 inch thick; vee grooved edges, maximum length in place.
   4. Cementitious Backing Board: High density, glass fiber reinforced, 5/8 inch thick. Georgia Pacific Corporation Dens Shield tile backer, Fin Pan Util-A-Crete tile backer or approved equal.
   5. High-Abuse Gypsum Board:
      ASTM C840, 5/8 inches thick, tapered edges meeting flame spread requirements of ASTM E84.
      A gypsum core wall panel with additives to enhance fire resistance, surface indentation and impact resistance of the core and surfaced with abrasion resistant paper on front and long edges with heavy liner paper bonded to the back side and complying with ASTM C36/C1396 Type X.

1.3 ACCESSORIES

A. Acoustic Sealant: Type specified in Section 07900 - Joint Sealers.
B. Corner Beads: Metal. USG 800 galvanized.
C. Edge Trim: USG 200-B galvanized.
D. Control Joint: USG No. 093 galvanized.
E. Special Trim: Fry aluminum Special Sections, paint finish to match grid.
F. Joint Materials: ASTM C475; reinforcing tape, joint compound, adhesive, and water.
G. Textured Finish Materials: Latex based texturing material.

EXECUTION

1.1 EXAMINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Verify site conditions are ready to receive work and work may be installed in accordance with applicable codes, the original design and referenced standards.
C. Beginning of installation means acceptance of substrate.
D. Verify backing is in place for attaching hardware, specialties and accesories.

1.2 EXISTING WORK

A. Extend existing gypsum board installations using materials and methods as specified.
B. Repair and remodel existing gypsum board assemblies which remain or are to be altered.

1.3 INSTALLATION

A. Gypsum Board Installation:
   1. Install gypsum board in accordance with GA-216 and GA-600.
   2. Unless otherwise noted, erect single layer fire rated gypsum board horizontally, with edges and ends occurring over firm bearing.
   3. Use screws when fastening gypsum board to metal and wood furring or framing.
   4. Double Layer Applications: Use gypsum backing board for first layer, placed perpendicular parallel to framing or furring members. Use fire rated gypsum backing board for fire rated partitions and ceilings. Install in accordance with manufacturers recommendations.
   5. Treat cut edges and holes in moisture resistant gypsum board with sealant.
   6. Place control joints as indicated on Drawings.
   7. Place corner beads at external corners as indicated on Drawings. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.
   8. Install cementitious backing board over wall framing behind base materials as noted on Finish Schedule.
   9. Provide one-hour rated gypsum board boxes around recessed light fixtures in rated gypsum board ceilings.
   10. Caulking: Install full sealant bead at bottom of gypsum panels and between panels and other adjacent materials.
   11. Caulk all penetrations of panels by conduits, pipes, ductwork, rough-in boxes and accessories.

B. Joint Treatment:
   Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   Gypsum wallboard shall be finished as Smooth Texture, Level 5 where exposed.
   Feather coats onto adjoining surfaces so that camber is maximum 1/16 inch.
   Fire tape only gypsum wallboard surfaces above ceilings and unexposed surfaces. Trowel firetaping to remove rough cement texture, continue exposed finish texture 3 inches minimum past ceilings. Finish walls behind cabinets and all applied fixtures and equipment.
   Fill and finish joints and corners of cementitious backing board.

1.1 ERECTION TOLERANCES

Section 01400 - Quality Requirements: Tolerances.
Maximum Variation of Finished Gypsum Board Surface from Flat Surface: 1/8 inch in 10 feet.

SCHEDULES

General:

1. Above finished ceilings concealed from view, and ceramic tile substrates.
2. Exposed walls and ceilings in toilet rooms, kitchen, and auditorium walls.

Textures:

Match existing.

END OF SECTION

1 GENERAL

1.1 SUMMARY

A. Section includes ceramic tile for floor and wall applications using thin set and mortar bed application methods and ceramic accessories.
B. Related Sections:
   1. Section 07900 - Joint Sealers.

1.2 REFERENCES

A. American National Standards Institute:
   1. ANSI A108.1 - Installation of Ceramic Tile, A collection.
   2. ANSI A108.10 - Specifications for Installation of Grout in Tile work.
   3. ANSI A108.1A - Specifications for Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar.
   4. ANSI A108.1B - Specifications for Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex Portland Cement Mortar.
   5. ANSI A108.5 - Specifications for Ceramic Tile Installed with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar.
   6. ANSI A118.1 - Standard Specification for Dry-Set Portland Cement Mortar.
   7. ANSI A118.4 - Latex-Portland Cement Mortar.
   8. ANSI A118.6 - Ceramic Tile Grouts.
   9. ANSI A136.1 - Organic Adhesives for Installation of Ceramic Tile.
   10. ANSI A137.1 - Ceramic Tile.
B. Tile Council of America:
   1. TCA - Handbook for Ceramic Tile Installation.

1.3 SUBMITTALS

A. Section 01330 - Submittal Procedures: Submittal procedures.
B. Shop Drawings: Indicate tile layout, patterns, color arrangement, perimeter conditions, junctions with dissimilar materials, control and expansion joints, ceramic accessories, and setting details.
C. Product Data: Submit instructions for using grouts and adhesives.
D. Samples: Submit color and texture samples of full range of manufacturers colors for each type tile specified.

1.4 CLOSEOUT SUBMITTALS

A. Section 01700 - Execution Requirements: Closeout procedures.
B. Operation and Maintenance Data: Submit recommended cleaning methods, cleaning materials, stain removal methods, and polishes and waxes.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with TCA Handbook and ANSI A108 Series/A118 Series.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Section 01600 - Product Requirements: Product storage and handling requirements.
B. Protect adhesives and grouts from freezing or overheating.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Section 01600 - Product Requirements.
B. Do not install adhesives and grouts in unventilated environment.
C. Maintain ambient and substrate temperature of 50 degrees F during installation and curing of mortar materials.

1.9 EXTRA MATERIALS

A. Section 01700 - Execution Requirements: Spare parts and maintenance products.
B. Supply 4 sq ft of each size, color, and surface finish of field tile specified.

2 PRODUCTS

2.1 TILE

A. Manufacturers:
   1. American Olean Tile Co.
   2. Dal-Tile International
   3. Substitutions: Section 01600 - Product Requirements.

2.2 COMPONENTS

A. CT-1 Ceramic Glazed Wall Tile: ANSI A137.1, conforming to the following: Gloss 2-1/4" x 4-1/4", black, 12.5 square feet per carton, light commercial, color TO MATCH EXISTING/PER OWNER APPROVAL.
B. CT-2 Ceramic Glazed Wall Base Tile: ANSI A137.1, conforming to the following: Semi-gloss 4-1/4" x 4-1/4" coved ceramic tile base, color TO MATCH EXISTING/PER OWNER APPROVAL.
C. CT-3 Ceramic Glazed Wall Tile: ANSI A137.1, conforming to the following: Semi-gloss 4-1/4" x 4-1/4", Dal-Tile K775 Matte Biscuit, 12.5 square feet per carton, light commercial.
D. CT-4 Ceramic Glazed Wall Base Tile: ANSI A137.1, conforming to the following: Semi-gloss 4-1/4" x 4-1/4" coved ceramic tile base, color Dal-Tile K775 Matte Biscuit
E. CT-5 Ceramic Mosaic Linglazed Floor Tile: ANSI A137.1, conforming to the following: 2" x 2" light commercial abrasion resistance application classification, 1' x 2' sheets per carton - 12, color TO MATCH EXISTING/PER OWNER APPROVAL.
F. CT-6 Floor Tile: Dal-Tile Matte Biscuit

G. CT-7 Ceramic Glazed Wall Base Tile: ANSI A137.1, conforming to the following: Semi-gloss 4-1/4" x 4-1/4" coved ceramic tile, color TO MATCH EXISTING/PER OWNER APPROVAL.

H. Wainscot Cap: Match wall tile for moisture absorption, surface finish, and color, bull nosed top edge.

2.3 ACCESSORIES

A. Adhesive Materials:
   1. Organic Adhesive: ANSI A136.1, thin-set bond type
B. Mortar Materials:
   1. Mortar Bed Materials: Portland cement, sand, latex additive and water.
   2. Mortar Bond Coat Materials:
      a. Dry-Set Portland Cement type: ANSI A118.1.
      b. Latex-Portland Cement type: ANSI A118.4.
C. Grout Materials:
   1. Standard Grout: Portland cement type as specified in ANSI A118.6.
      a. Color: Selected by Architect.
D. Membrane at Walls: No. 15 asphalt saturated felt.
E. Reinforcing Mesh: 2 x 2 inch size weave of 16/16 wire size; welded fabric, galvanized.
F. Waterproof Admixture:
   1. Horn “Hydrate Plus, Master Builders OM” or approved. Provide in all mortar.
G. Joint Sealers: As specified in Section 07900.
H. Edge Strips: 1/4 inch brushed nickel angle trim. Upstand, Schluter or approved.
I. Silicone Rubber Grout: Silicone sealant, moisture and mildew resistant type, complying with ANSI A118.6, color as selected; use floors and walls.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Verify surfaces are ready to receive work.

3.2 PREPARATION

A. Protect surrounding work from damage.
B. Vacuum clean surfaces and damp clean.
C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.

3.3 INSTALLATION

A. Install tile, thresholds and grout in accordance with applicable requirements of ANSI A108.1 through A108.10, and TCA Handbook recommendations.
B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings.
C. Place thresholds edge strips at exposed tile edges.
D. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor, base and wall joints.
E. Place tile with joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints watertight, without voids, cracks, excess mortar, or excess grout.
   1. Ceramic Tile: 1/16 inch.
F. Form internal angles square coved and external angles bullnosed square.
G. Sound tile after setting. Replace hollow sounding units.
H. Keep expansion control joints free of adhesive or grout. Apply sealant to joints.

I. Allow tile to set for a minimum of 48 hours prior to grouting.
J. Grout tile joints.
K. Apply sealant to junction of tile and dissimilar materials and junction of dissimilar planes.
L. Installation - Floors - Mortar Bed Methods:
   1. Over interior concrete substrates, install in accordance with TCA Handbook Method F112, bonded.
   2. Mortar Bed Thickness: 1-3/4 inches unless otherwise indicated.
M. Floor Expansion Joints: Install expansion joints in accordance with TCA Handbook EJ 171.
N. Installation - Wall Tile:
   1. Over gypsum wallboard on wood or metal studs install in accordance with TCA Handbook Method W243, thin-set with dry-set or latex-portland cement bond coat.

3.5 CLEANING

A. Section 01700 - Execution Requirements: Final cleaning.
B. Clean tile and grout surfaces.
C. All existing wall, floor, base tile to remain shall be power-washed using commercial grade cleaning products. PROSOCO,
   # 2010 All Surface Cleaner
   # 800 Stain Remover
   Gloss & Guard WB Protection.

3.6 PROTECTION OF INSTALLED CONSTRUCTION

A. Section 01700 - Execution Requirements: Protecting installed construction.
B. Do not permit traffic over finished floor surface for 4 days after installation.

END OF SECTION

1 GENERAL

1.1 SUMMARY

A. Section includes acoustic panels
B. Reuse existing grid system.

1.2 REFERENCES

A. American Society for Testing and Materials:
   1. ASTM C635 - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
   2. ASTM C636 - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
   3. ASTM E580 - Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Requiring Seismic Restraint.
B. Ceilings and Interior Systems Construction Association:
   1. CISCA - Acoustical Ceilings: Use and Practice.
C. Underwriters Laboratories Inc.:
   1. UL - Fire Resistance Directory.
D. Uniform Building Code:
   1. UBC Standard 25-2.

1.1 SUBMITTALS

A. Section 01330 - Submittal Procedures: Submittal procedures.
B. Product Data: Submit data on acoustic units.
C. Samples: Submit two 3" x 3" samples illustrating material and finish of each type of acoustic units.
D. Manufacturer's Installation Instructions: Submit special procedures and perimeter conditions requiring special attention.

1.2 QUALITY ASSURANCE

A. Conform to CISCA requirements.

1.3 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

1.4 PRE-INSTALLATION MEETINGS

A. Section 01300 - Administrative Requirements: Pre-installation meeting.
B. Convene minimum one week prior to commencing work of this section.

1.5 ENVIRONMENTAL REQUIREMENTS

A. Section 01600 - Product Requirements.
B. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustic unit installation.

1.6 SEQUENCING

A. Install acoustic units after interior wet work is dry.

1.7 EXTRA MATERIALS

A. Furnish extra full and undamaged panels as follows:
   1. 2 x 4 Type ACT - 1 : 10

2 PRODUCTS

2.1 ACOUSTIC CEILINGS PANELS

(ACT - 1) Lay-In Acoustic Units
Size: 24" x 48"
Thickness: 5/8 inch
Composition: Wet formed mineral fiber with vinyl-faced membrane
Flame Spread: Class A UL
Edge: Square
Color: White
Design: Armstrong: Clean Room VL, non-perforated, No. 870.

A. Protect existing grid and replace components as necessary.

2.2 ACCESSORIES

A. Touch-up Paint: Type and color to match acoustic and grid units.
B. Provide plastic escutcheon trim collars at all duct, pipe and round columns penetrating acoustical ceilings. Paint finish to match grid. Trim-Tex or approved equal.

3 EXECUTION

3.1 EXAMINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Verify layout of hangers will not interfere with other work.
C. Notify architect of any ceiling layout requiring panel widths between ½ inch and 3 inches prior to installing grid.

3.2 INSTALLATION

A. Lay-In Grid Suspension System:
   1. Existing
B. Acoustic Units:
   1. Fit acoustic units in place, free from damaged edges or other defects detrimental to appearance and function.
   2. Install units after above ceiling work is complete.
   3. Install acoustic units level, in uniform plane, and free from twist, warp, and dents.
   4. Cutting Acoustic Units:
      a. Cut to fit irregular grid and perimeter edge trim.
      b. Cut square tegular edges to field cut units.
      c. Double cut and field paint exposed edges of tegular units.
   5. Where round obstructions occur, install preformed closures to match perimeter molding.
      a. Use special vinyl faced tile at perimeters. Keep vinyl intact.
   6. Install hold-down clips to retain panels tight to grid system within 20 ft of exterior door.

3.3 ERECTION TOLERANCES

A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.

END OF SECTION

PART 1 GENERAL

1.1_ SUMMARY

A. Section includes surface preparation and field application of paints, stains, varnishes, and other coatings.
B. Related Sections:
   1. Section 05500 - Metal Fabrications: Shop primed items.
   2. Section 07900 - Joint Sealers: Sealants.
C. Alternates: Refer to Section 01200 for possible effect upon work in this section.

1.2 REFERENCES

C. American Society for Testing and Materials:
D. ASTM D16 - Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products.
E. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Base Materials.
F. Painting and Decorating Contractors of America:
   1. PDCA - Architectural Painting Specification Manual.

1.3 DEFINITIONS

A. Conform to ASTM D16 for interpretation of terms used in this section.

1.4 SUBMITTALS

A. Section 01330 - Submittal Procedures: Submittal procedures.
B. Product Data: Submit data on finishing products.
C. Samples: Submit two painted samples, illustrating selected colors and textures for each color and system selected with specified coats cascaded. Submit on aluminum sheet tempered cardboard 8 x 10 inch in size.

1.5 CLOSEOUT SUBMITTALS

A. Section 01700 - Execution Requirements: Closeout procedures.
B. Operation and Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
B. Applicator: Company specializing in performing work of this section with minimum five years documented experience approved by manufacturer.

1.7 PRE-INSTALLATION MEETINGS

C. Section 01300 - Administrative Requirements: Pre-installation meeting.
D. Convene minimum one week prior to commencing work of this section.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Section 01600 - Product Requirements: Product storage and handling requirements.
B. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
C. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
D. Paint Materials: Store at minimum ambient temperature of 45 degrees F and maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.
E. Take precautionary measures to prevent fire hazards and spontaneous combustion.

1.9 ENVIRONMENTAL REQUIREMENTS

A. Section 01600 - Product Requirements.
B. Do not apply materials when surface and ambient temperatures are outside temperature ranges required by paint product manufacturer.
C. Do not apply exterior coatings during rain or snow when relative humidity is outside humidity ranges, or moisture content of surfaces exceed those required by paint product manufacturer.
D. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.
E. Minimum Application Temperature for Varnish and Other Finishes: 65 degrees F for interior or exterior, unless required otherwise by manufacturer's instructions.
F. Provide lighting level of 80 ft candle measured mid-height at substrate surface.

1.10 SEQUENCING

A. Section 01100 - Summary: Work sequence.
B. Sequence application to the following:
C. Do not apply finish coats until paintable sealant is applied.
D. Back prime wood trim before installation of trim.

1.11 WARRANTY

A. Section 01700 - Execution Requirements: Product warranties and product bonds.
B. Furnish five year manufacturer warranty for paints and coatings.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS-NON ABSORPTIVE OIL BASED ENAMEL

A. ICI Paint Stores
B. Sherwin-Williams
C. Pittsburg Paints
D. Benjamin-Moore
E. Substitutions: Section 01600 - Product Requirements

2.2 COMPONENTS

A. Coatings: Ready mixed, except field catalyzed coatings. Prepare coatings:
B. To soft paste consistency, capable of being readily and uniformly dispersed to homogeneous coating.
C. For good flow and brushing properties.
D. Capable of drying or curing free of streaks or sags.
E. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve finishes specified; commercial quality.
F. Patching Materials: Latex filler.
Non-absorptive paint finish texture.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Verify substrate conditions are ready to receive Work as instructed by product manufacturer. Beginning of application means acceptance of substrates.
C. Examine surfaces scheduled to be finished prior to commencement of work. Report conditions capable of affecting proper application.
D. Test shop applied primer for compatibility with subsequent cover materials.
E. Measure moisture content of surfaces using electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
1. Plaster and Gypsum Wallboard: 12 percent.
2. Masonry, Concrete, and Concrete Unit Masonry: 12 percent.
3. Interior Wood: 15 percent, measured in accordance with ASTM D4442.
4. Exterior Wood: 15 percent, measured in accordance with ASTM D4442.
5. Concrete Floors: 8 percent.

3.2 PREPARATION

G. Surface Appurtenances: Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
B. Surfaces: Correct defects and clean surfaces capable of affecting work of this section. Remove or repair existing coatings exhibiting surface defects.
C. Marks: Seal with shellac those which may bleed through surface finishes.
D. Impervious Surfaces: Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water nd allow surface to dry.
E. Aluminum Surfaces Scheduled for Paint Finish: Remove surface contamination by steam or high pressure water. Remove oxidation with acid etch and solvent washing. Apply etching primer immediately following cleaning.
F. Asphalt, Creosote, or Bituminous Surfaces Scheduled for Paint Finish: Remove foreign particles to permit adhesion of finishing materials. Apply latex based compatible sealer or primer.
G. Insulated Coverings: Remove dirt, grease, and oil from canvas and cotton.
H. Concrete Floors: Remove contamination, acid etch, and rinse floors with clear water. Verify required acid-alkali balance is achieved. Allow to dry.
I. Gypsum Board Surfaces: Fill minor defects with filler compound. Spot prime defects after repair.
J. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
K. Concrete and Unit Masonry Surfaces Scheduled to Receive Water-proofing: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease

with solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.

L. Plaster Surfaces: Fill hairline cracks, small holes, and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.

M. Uncoated Steel and Iron Surfaces: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by wire brushing or sandblasting; clean by washing with solvent. Apply treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Spot prime paint after repairs.

N. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Prime metal items including shop primed items.

O. Interior Wood Items Scheduled to Receive Paint Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats.

P. Interior Wood Items Scheduled to Receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats.

Q. Exterior Wood Scheduled to Receive Paint Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior paintable caulking compound after prime coat has been applied.

R. Exterior Wood Scheduled to Receive Transparent Finish: Remove dust, grit, and foreign matter; seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes with tinted exterior caulking compound after sealer has been applied.

S. Glue-Laminated Beams: Prior to finishing, wash surfaces with solvent, remove grease and dirt.

T. Metal Doors Scheduled for Painting: Prime metal door top and bottom edge surfaces.

U. Wood Doors: Seal field trimmed edges of wood doors.

3.3 EXISTING WORK

A. Extend existing paint and coatings installations using materials and methods compatible with existing installations and as specified.

3.4 APPLICATION

A. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

B. Apply each coat to uniform appearance. Apply each coat of paint slightly darker than preceding coat unless specified otherwise.

C. Sand wood surfaces lightly between coats to achieve required finish.

D. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

E. Where clear finishes are required, tint fillers to match wood. Work fillers into grain before set. Wipe excess from surface.

F. Prime concealed surfaces of interior and exterior woodwork with primer paint.

3.5 FIELD QUALITY CONTROL

A. Section 01700 - Execution Requirements: Testing, adjusting, and balancing.

3.6 CLEANING

A. Section 01700 - Execution Requirements: Final cleaning.
B. Collect waste material which may constitute fire hazard, place in closed metal containers, and remove daily from site.

3.7 PAINTING

A. Perform all work in accordance with PDCA Architectural Painting Specification Manual unless modified by this specification.
B. Verify with Architect any surfaces to be painted not noted in this Specification. It is the specific intent of this Section that new and existing exposed surfaces normally painted or finished be given at least two coats of appropriate paint unless otherwise noted. Where a wall or ceiling is scheduled to be painted, paint all surfaces including frames, panels, doors, etc., in the ceiling or wall. Apply one coat sealer on walls behind cabinets.
C. All vents, fans, ducts, hoods, pipes, etc., penetrating roof or exterior walls shall be painted.
D. Paint all grilles and other prefinished items where the factory prefinish is not in accordance with the Painting Schedule and color selection.
E. Paint exterior items including signage, bench supports, screen supports, gratings, exposed flashings and steel fabrications.
F. Paint surfaces to receive wallcoverings one coat primer/sealer compatible with covering.
G. All surfaces to be stained shall be finished by wiping, to eliminate stain build-up and shiny spots.
H. All doors and frames shall be finished on all surfaces, including edges.
I. Prepare and finish selected salvaged items shown in drawings and Salvage Schedule.
J. Only the inspected and approved coats of paint will be considered in determining the number of coats shown as required to “cover” surface and eliminate shadowing, holidays and thin spots.
K. All painting shall be accomplished in conformance with the Architect’s Color Schedule before proceeding with painting.
L. Paint Owner-Furnished items installed by Contractor.
M. Omit primer on factory or shop primed items. Finish paint all primed items.

3.8 INTERIOR PAINTING SCHEDULE

A. New Gypsum Board and Plaster Walls:
1. One coat of alkyd latex primer sealer.
2. Two coats of latex enamel, eggshell.
3. B20W201 manufactured by Sherwin Williams.

B. All Existing Walls and Ceilings
1. Two coats latex enamel, eggshell.

END OF SECTION

1 GENERAL

1.1 SUMMARY

A. Section includes solid plastic toilet compartments and urinal screens.
B. Related Sections:
   1. Section 06100 - Rough Carpentry: Concealed wood framing and blocking for compartment support.
   2. Section 09111 - Metal Studs: Concealed framing and blocking.
   3. Section 10800 - Toilet and Bath Accessories.

1.2 REFERENCES

A. American Society for Testing and Materials:
   1. ASTM A666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.

1.3 SUBMITTALS

A. Section 01330 - Submittal Procedures: Submittal procedures.
B. Shop Drawings: Indicate partition plan, elevation views, dimensions, details of wall, floor, and ceiling supports, door swings.
C. Product Data: Submit data on panel construction, hardware, and accessories.
D. Samples: Submit two 3 x 3 inch in size illustrating panel finish, color, and sheen.
E. Manufacturer's Installation Instructions: Submit special procedures, perimeter conditions requiring special attention.

1.4 COORDINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Coordinate Work with placement of support framing and anchors in wall and ceiling.

2 PRODUCTS

2.1 PHENOLIC TOILET COMPARTMENTS

A. Manufacturers:
   1. Accurate Partitions Corp.
   2. Capitol Partitions Inc.
   3. Comtec Industries.
   4. General Partitions Manufacturing Corp.
   5. Global Steel Products Corp.
   6. Substitutions: Refer to Section 01600 - Material and Equipment.
B. Product Description: Floor mounted overhead braced. Phenolic partition units.

2.2 COMPONENTS

A. Toilet Compartments: Phenolic panels, doors, and pilasters. Floor-mounted headrail-braced.
   1. Color: As selected.
B. Door and Panel Dimensions:
   1. Thickness: 3/4 inch.
   2. Door Width: 24 inches.
   3. Accessible Door Width: 36 inches , out-swinging.
   4. Height: 55 inches.
   5. Thickness of Pilasters: 1-1/4 inches.
C. Urinal Screens: Wall mounted with two panel brackets, vertical upright consisting of pilaster anchored to floor.

2.3 ACCESSORIES

A. Pilaster Shoe: Formed ASTM A666 Type 304 stainless steel with No. 4 finish, 3 inch high, concealing floor fastenings. Provide adjustment for floor variations with screw jack through steel saddles integral with pilaster.
B. Head Rails: Hollow stainless steel tube, 1 x 1-5/8 inch size, with anti-grip profiles and cast socket wall brackets.
C. Brackets: Stainless steel.
D. Attachments, Screws, and Bolts: Stainless steel , tamper proof type.
   1. For attaching panels and pilasters to brackets: Through-bolts and nuts ; tamper proof.
E. Hardware: Stainless steel:
   1. Pivot hinges, gravity type, adjustable for door close positioning; two for each door.
   2. Nylon bearings.
   3. Thumb turn door latch with exterior emergency access feature.
   4. Door strike and keeper with rubber bumper; mounted on pilaster in alignment with door latch.
   5. Coat hook with rubber bumper; one for each compartment, mounted on door.
   6. Furnish door pull for outswinging doors.
   7. Furnish metal heat sink at bottom of doors and partitions.

3 EXECUTION

3.1 EXAMINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Verify field measurements are as indicated on shop drawings.
C. Verify correct spacing of and between plumbing fixtures.
D. Verify correct location of built-in framing, anchorage, and bracing.

3.2 INSTALLATION

A. Maintain 3/8 to 1/2 inch space between wall and panels and between wall and end pilasters.
B. Attach panel brackets securely to walls using anchor devices.
C. Attach panels and pilasters to brackets. Locate head rail joints at pilaster center lines.

3.3 ERECTION TOLERANCES

A. Section 01400 - Quality Requirements: Tolerances.
B. Maximum Variation From Indicated Position: 1/4 inch.

C. Maximum Variation From Plumb: 1/8 inch.

3.4 ADJUSTING

A. Section 01700 - Execution Requirements: Testing, adjusting, and balancing.
B. Adjust and align hardware to uniform clearance at vertical edge of doors, not exceeding 3/16 inch.
C. Adjust hinges to position doors in partial opening full closed position when unlatched. Return out-swinging doors to closed position.
D. Adjust adjacent components for consistency of line or plane.

END OF SECTION

1 GENERAL

1.1 SUMMARY

A. Section includes toilet accessories; Rough-in frames and attachment hardware.
B. Related Sections:
   1. Section 06100 - Rough Carpentry: Placement of backing.
   2. Section 09111 - Metal Studs: Placement of backing.

1.2 REFERENCES

A. American Society for Testing and Materials:
   1. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
   2. ASTM A269 - Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
   3. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
   4. ASTM A666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
   5. ASTM B456 - Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
   6. ASTM C1036 - Standard Specification for Flat Glass.
B. Federal Specification Unit:
   1. FS A-A-3002 - Mirrors, Glass.

1.3 SUBMITTALS

A. Section 01330 - Submittal Procedures: Submittal procedures.
B. Product Data: Submit data on accessories describing size, finish, details of function, attachment methods.
C. Manufacturer's Installation Instructions: Submit special procedures and conditions requiring special attention.

1.4 COORDINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Coordinate the Work with placement of internal wall reinforcement and reinforcement of toilet partitions to receive anchor attachments.

PART 2 PRODUCTS

2.1 TOILET AND BATH ACCESSORIES

A. Manufacturers:
   1. Bobrick Washroom Accessories.
   2. Bradley Corp.
   3. McKinney.
   4. ASI
   5. Gamco

6. Substitutions: Section 01600 - Product Requirement.

2.2 COMPONENTS

A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
   1. Grind welded joints smooth.
   2. Fabricate units made of metal sheet of seamless sheets, with flat surfaces.
B. Stainless Steel Sheet: ASTM A666 , Type 304.
C. Stainless Steel Tubing: ASTM A269, stainless steel.
D. Galvanized Sheet Steel: ASTM A653, G90 zinc coating.
E. Mirror Glass: Float glass, Type I, Class 1, Quality q2 (ASTM C 1036), with silvering, copper coating, and suitable protective organic coating to copper backing in accordance with FS A-A-3002.
F. Fasteners, Screws, and Bolts: Hot dip galvanized , tamper-proof , security type.
G. Expansion Shields: Fiber, lead, or rubber as recommended by accessory manufacturer for component and substrate.

2.3 TOILET ACCESSORIES

A. ASI products listed. Equal products of Bobrick, Bradley, McKinney, and Gamco are approved.
B. Accessories:
   1. (GB-1) Stainless steel grab bar 3401-M

C. Mirrors: Stainless steel framed, 6 mm thick float glass mirror.
   1. Size: As indicated on Drawings
   2. Frame: [0.05] inch channel shapes, with mitered and welded and ground corners [, and tamperproof hanging system]; No.4 finish.
   3. Backing: Full-mirror sized, minimum [0.03inch galvanized steel sheet and non-absorptive filler material.
   4. Product: B-290 manufactured by Bobrick or approved equal.

2.4 FACTORY FINISHING

A. Stainless Steel: No. 4 satin brushed finish, unless otherwise noted.
B. Galvanizing for Items other than Sheet: ASTM A123/A123M to 1.25 oz/sq yd. Galvanize ferrous metal and fastening devices.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 01300 - Administrative Requirements: Coordination and project conditions.
B. Verify exact location of accessories for installation.
C. Verify field measurements are as indicated on product data.
D. See related sections for installation of blocking, reinforcing plates and concealed anchors in walls.

3.2 PREPARATION

A. Deliver inserts and rough-in frames to site for timely installation.
B. Provide templates and rough-in measurements as required.

3.3 INSTALLATION

A. Install plumb and level, securely and rigidly anchored to substrate.
B. Mounting Heights and Locations: As required by accessibility regulations As indicated on Drawings.
C. Blocking may not exist at all locations, additional fasteners may be required that support grab bars w/out framed blocking.

3.4 SCHEDULE

A. Excel “X LERATOR” Model “XL-SB” Hand dryer, include electrical hookup.
B. Mirrors: Dimensions per plans.
C. Koala Kare KB200. Horizontal wall-mounted baby changing station.
D. Bobrick B-212 Coat Hook, Per Plans
E. Tissue dispensers and soap dispensers by owner.
F. Bobrick B-2706 50 Surface mounted napkin/tampon vendor

END OF SECTION

PART 1.00 - GENERAL

1.01 SECTION INCLUDES

A. All plumbing fixtures and trim.

1.03 PERFORMANCE REQUIREMENTS

A. Furnish and install all fixtures and equipment, complete and in place, fully functional and including all accessories and appurtenances required to perform the intended or indicated functions.

1.04 SUBMITTALS

A. Provide electronically in P.D.F. format.

1.05 DELIVERY, STORAGE, HANDLING

A. Keep all protective wrappings, boxes, and shipping containers intact until ready to incorporate fixtures and equipment into the construction. Fixtures damaged during construction shall be replaced with new and perfect fixtures without expense to the Owner.

B. Carefully store and handle existing or salvaged fixtures and equipment which are to be re-used, complete with all accessories and parts.

1.06 COORDINATION AND SCHEDULING

A. Coordinate delivery and installation of plumbing fixtures with other trades, such as flooring and cabinets, so as to have all materials on hand when needed for integrating fixtures and equipment into the construction.

B. Schedule salvage and removal operations with Owner in advance, so as to minimize inconvenience or downtime.

PART 2.00 - PRODUCTS

2.01 MATERIALS

A. All materials employed in permanent construction shall be new, full weight, in first class condition, and suitable for space provided.

B. All similar materials shall be of one manufacturer. Fixture trim for the entire job shall be supplied by the same manufacturer to the extent possible.

C. Fixtures and their trim shall be complete in every respect, including such items as escutcheons, hanger plates, bolts, supplies, stops, traps, etc.

D. All exposed metal parts of all fixtures, including faucets, waste fittings, indirect waste piping, waste plugs, strainers, flush valves, traps, supplies, and escutcheons shall be polished chrome-plated brass, unless otherwise specified including all parts within a base cabinet.

2.02 SYSTEM ACCESSORIES

A. Fixture Supports & Carriers: All fixture supports shall be ANSI approved to adequately support the fixture. Carrier shall best suit the fixture arrangement and wall space available for the piping arrangement and materials employed.

B. Cleanouts: Cast-iron wye, with brass, square head, screw-joint plug full size of piping. Acceptable Manufacturers: Josam, MIFAB, J. R. Smith, Sioux Chief Finish Line, Wade, Zurn, or approved equal.

1. Walls: J. R. Smith Series 4472 with polished brass surface plate cover secured to plug by screw.

2. Floors and Concrete Surfaces: J. R. Smith Series 4111. Install where shown or required and accessible after completion of building.

3. Building Exterior: Standard cleanout for pipe material, Brooks precast concrete access box with cast iron top set flush in finish grade.

C. P-Traps: P-traps shall be connected to floor drains and where otherwise required or shown. Traps shall be constructed of coated cast-iron, or other materials as approved or noted on plans. Traps on floor drains shall be primed from the nearest water closet or approved priming valve.

D. Trap Primers: Provide trap primers on all floor drains and indirect receptors that do not serve plumbing fixtures. Primers shall be accessible and installed according to manufacturer's recommendations. Sioux Chief 695 series or Precision Plumbing Products P-1 and P-2 series. For kitchens and areas where multiple drains need to be primed, use Precision Plumbing Products PT series electronic trap priming manifolds.

E. Waste and all water supply piping for handicapped person fixtures shall be insulated with TrueBro Lav Guard or Plumberex Pro-Series kits, or approved equal.

F. Shower mixing valves shall be T/P combination thermostatic and pressure balancing with limit stops to meet current codes. Shower valves by Leonard, Powers, Symmons, or approved equal.

2.03 FIXTURE CONNECTIONS

A. Fixture Stops: Fixture stops shall be of the quarter-turn ball type and shall be by the primary plumbing fixture manufacturer (such as American Standard or Kohler) or a specialty manufacturing company such as Brass Craft or McGuire. Stops shall be chrome-plated with threaded or solder connection on the water supply inlet. Jam nuts are acceptable only on the fixture side of the stop. Stop handles shall be capable of manual operation – no tool or key required.

B. Fixture Risers: Risers shall be braided stainless steel.

C. Closet Flange: A heavy cast-iron closet flange shall be installed between each water closet and the soil pipe, gas and water tight, with non-hardening putty.

2.04 PLUMBING FIXTURES

A. Description: See Plumbing Fixture Schedule or notes on plans for fixture types and accessories.

B. Acceptable Manufacturers:

1. Fixtures: American Standard, Eljer, Kohler, Toto, or approved equal.
   A. WC-1: American Standard “Madera” 15” EL 1.6 gal., Single handle flush Valve. Coordinate existing water supply locations as necessary and right or left lever locations per code.

      1. Usage: Handicap height, floor mount water closet.
      2. Accessibility: ADA Compliant
      3. Flush Valve:
         a. Description: Chrome plated body, multi-filtered bypass, chloramine resistant diaphragm, ADA compliant handle, vandal resistant stop cap with set screw, sweat solder adapter with cover tube, and cast wall flange wit set screw.
         b. Stops: Screw driver type. Vacuum breaker.
         c. Inlet Adapter: Thread-to-solder, with escutcheon and casing tube.
         d. Gallons per Flush: 1.6
         e. Manufacturer: Sloan, Zurn or approved. Similar to Sloan Royal 111-1.6
      4. Seat:
         a. Material: Solid white reinforced plastic.

b. Bumper: Non metallic.
c. Concealed check.
d. Hinge with insert molded integrally in seat.
e. Manufacturer: Church, Bemis, American Standard, Olsonite, Beneke or approved. Similar to Church 9500C seat.

5. Carrier:
a. Base Supports: Floor-mounted, adjustable cat iron.
b. Face plate: Cast iron with neoprene gasket.
c. Waste fitting: Cast iron with anchor foot. Vertical or horizontal, as required. Vent and/or side inlets as required.
d. Fixture cap nuts: Chrome-plated.
e. Fixture outlet gasket: Neoprene.
f. Manufacturer: Jay R. Smith, Mifab, Wade, Zurn< Watts or approved. Similar to Jay R. Smith 100 or 200 Series.

B. WC-2:
1. Usage: ADA height, wall-mount HET water closet.
2. Accessibility: Not handicap accessible.
3. All components same as WC-1, except for mounting height.

C. U-1:
1. Usage: Wall-hung urinal.
2. Accessibility: Handicap accessible height. (Only at McNeal)
3. Fixture:
a. Description: Wall-hung top spout, 0.5 gpf siphon jet, privacy shields, vitreous china.
b. Overall Dimensions: 28 inches x 18 inches x 14 inches.
c. Material: Vitreous china.
d. Color: White.
e. Manufacturer: American Standard, Briggs, Eljer, Kohler, Sloan or approved. Similar to American Standard Model 6590.001.

4. Carrier:
a. Uprights: Floor-mounted, round or rectangular steel tubing.
b. Upper Hanger Plate: Adjustable, to match hangers furnished with fixture.
c. Bottom Bearing Plate: Adjustable, with bearing studs to match fixture.
d. Manufacturer: Jay R. Smith, Mifab, Wade, Zurn, Watts or approved. Similar to Jay R. Smith Figures 636-637.

5. Manual Flush Valve:
a. Description: Chrome plated body, multi-filtered bypass, chloramine resistant diaphragm, vandal esistant stop cap with set screw, sweat solder adapter with cover tube, and

cast wall flange with set screw, battery powered sensor, mechanical manual override.

b. Stops: Screwdriver type. Vacuum braker.
c. Inlet Adapter: Thread-to-solder, with escutcheon and casing tube.
d. Gallons per Flush: 0.5
e. Manufacturer: Sloan, Zurn, Moen or approved. Similar to Sloan Royal 186-0.5-SMO.

D. L-1:
1. Usage: Counter mounted lavatory.
2. Accessibility: ADA Compliant.
3. Fixture:
a. Description: Self-rimming, front overflow, faucet holes on 4 inch centers.
b. Dimensions: 20 inches x 17 inches overall x 6 inches deep.
c. Material: Vitreous china.
d. Color: White.
e. Manufacturer: American Standard, Briggs, Eljer, Kohler or approved. Similar to American Standard Aqualyn, Model 0476.028.
4. Fittings:
a. Faucet: Sensor operated, battery powered, single temperature, 4 inch base plate, 4 ½ inch spout, 0.5 gpm vandal-resistant aerator, back checks, chrome finish. Sloan, Chicago, Zurn, Moen or approved. Similar to Sloan Model EBF-650.
b. Drain: Heavy cast brass grid strainer, 1 ¼ inch, 17 gauge tubular brass tailpiece. McGuire, American Standard, Kohler or approved. Similar to McGuire Model 155A.
c. Mixing Valve: Provide MV-1.
5. Carrier:
a. Uprights: Floor-mounted, round or rectangular steel tubing.
b. Type: Concealed arms.
c. Manufacturer: Jay R. Smith, Mifab, Wade, Zurn, Watts or approved. Similar to Jay R. Smith 700 series.

E. L-2:
1. Usage: Wall mounted lavatory.
2. Accessibility: ADA Compliant.
3. Fixture:
a. Description: Front overflow, faucet holes on 4 inch centers.
b. Dimensions: 19 inches x 17 inches overall x 6 inches deep.
c. Material: Enamel cast iron.
d. Color: White.
e. Manufacturer: American Standard, Briggs, Eljer, Kohler or approved. Similar to American Standard Regalyn

a. Faucet: Sensor operated, battery powered, single temperature, 4 inch base plate, 4 ½ inch spout, 0.5 gpm vandal-resistant aerator, back checks, chrome finish. Sloan, Chicago, Zurn, Delta or approved. Similar to Sloan Model EBF-650.
b. Drain: Heavy cast brass grid strainer, 1 ¼ inch, 17 gauge tubular brass tailpiece. McGuire, American Standard, Kohler or approved. Similar to McGuire Model 155A.
c. Mixing Valve: Provide MV-1.

5. Carrier:
   a. Uprights: Floor-mounted, round or rectangular steel tubing.
   b. Type: Concealed arms.
   c. Manufacturer: Jay R. Smith, Mifab, Wade, Zurn, Watts or approved. Similar to Jay R. Smith 700 series

F. DRINKING FOUNTAIN

Install **Elkay LZSTL8WSLK EZH2O Bi-Level Drinking Fountain with Water Bottle Filling Station** to replace as shown on plans (2) at Ed. Psych Bldg. and (1) at McNeal Bldg.

PART 3.00 - EXECUTION

3.01 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install fixture traps easily removable for servicing and cleaning.

C. Seal fixtures to wall and floor surfaces with sealant. Color to match fixture.

D. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise or overflow.

3.02 ADA COMPLIANCE

A. American with Disabilities Act (ADA):
   1. All plumbing fixtures noted to be ADA compliant must be installed in accordance with current ADA requirements. Height, clearances, and controls shall comply with ADA requirements and applicable codes in addition to specific requirements listed here.

B. Water Closets:
   1. Mount wall-hung water closets with seat to finish floor dimension of 17 to 19 inches.

C. Urinals:
   1. Mount wall-hung urinals with front rim to finish floor dimension of 17 inches maximum.

D. Lavatories:
   1. Insulate waste and hot water pipes under fixture.
2. Mount counter lavatories in minimum 22" deep counter installed 2 inches minim from front edge of counter. Mount lavatory with rim to finish floor dimension of 34 inches maximum. Note that sinK rim and counter top are not flush for drop-in style lavatories.

3.03 INSTALLATION

A. Water Closets:
   1. Install carriers plumb.
   2. Closet Bowl Gaskets: Sponge rubber (wax gaskets not allowed).

B. Urinals:
   Manual flush.

C. Lavatories:
   1. Provide individual waste drop below floor at concealed arm carriers installed in walls with cavities six inches or less wide.
   2. Battery operated sensor.

END OF SECTION

American Standard
Style That Works Better

BARRIER FREE

REGALYN™ WALL-MOUNT LAVATORY
ENAMELED CAST IRON

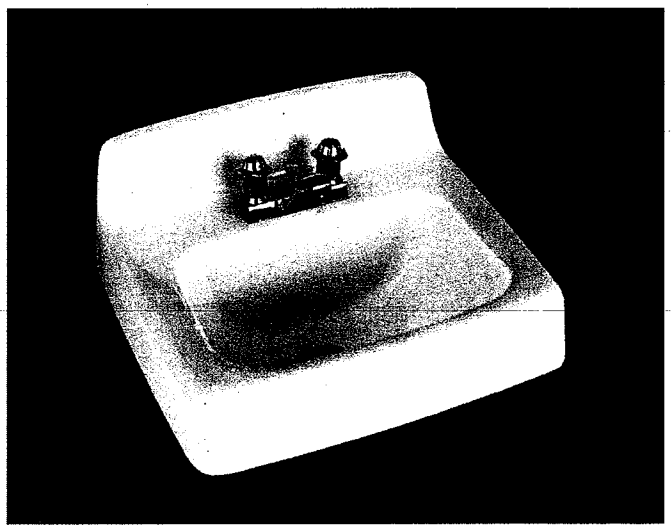
REGALYN™ WALL-MOUNT SINK

- Enameled Cast Iron
- Glossy porcelain finish
- Wall-hung installation
- Front overflow
- One soap depression
- Supplied with wall hanger
- Choice of faucet holes on 4" or 8" centers

❑ **4867.008** Faucet holes on 8" (203mm) centers

❑ **4867.004** Faucet holes on 4" (102mm) centers (shown)

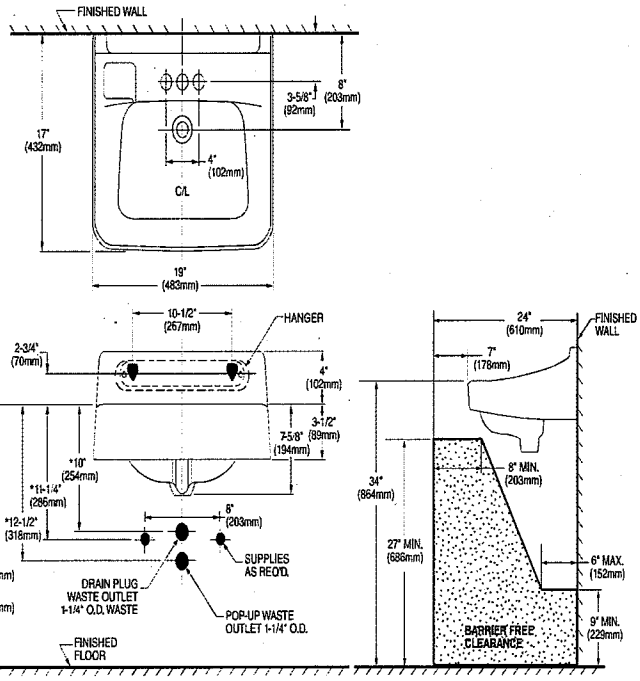
❑ **4867.001** Faucet center hole only



Nominal Dimensions:
19" x 17"
(483 x 432mm)

Bowl sizes:
394mm (15-1/2") wide
251mm (9-7/8") front to back
152mm (6") deep

Compliance Certifications -
Meets or Exceeds the Following Specifications:
- ASME A112.19.1 for Cast Iron Plumbing Fixtures



To Be Specified:
- ❑ Color: ❑ White
- ❑ Faucet*:
- ❑ Faucet Finish:
- ❑ Supplies with Stop:
- ❑ 1-1/4" Trap:

* See faucet section for additional models available

MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES - CHECK LOCAL CODES.
Top of front rim mounted 864mm (34") from finished floor.

NOTES:
* DIMENSIONS SHOWN FOR LOCATION OF SUPPLIES AND "P" TRAP ARE SUGGESTED.
PROVIDE SUITABLE REINFORCEMENT FOR ALL WALL SUPPORTS.
FITTINGS NOT INCLUDED AND MUST BE ORDERED SEPARATELY.

IMPORTANT: Dimensions of fixtures are nominal and may vary within the range of tolerances established by ANSI Standard A112.19.2. These measurements are subject to change or cancellation. No responsibility is assumed for use of superseded or voided pages.

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

FEATURES & SPECIFICATIONS

INTENDED USE — Low-profile static luminaire provides general illumination for recessed applications; Ideal for restricted plenum spaces.

Certain airborne contaminants can diminish integrity of acrylic. Click here for Acrylic Environmental Compatibility table for suitable uses.

ATTRIBUTES — Designed exclusively for use with T8 lamps, electronic ballasts and sockets.

CONSTRUCTION — Smooth hemmed sides and smooth, inward formed end flanges for safe handling. Lighter weight fixture allows for safe, easy installation.

Standard steel door frame has superior structural integrity with premium extruded appearance and precision flush mitered corners. Steel door allows easy lens replacement without frame disassembly (for lenses up to .156" think). Powder painted, steel latches provide easy, secure door closure.

Superior mechanical light seal requires no foam gasketing. Integral T-bar clips secure fixture to T-bar system. Housing formed from cold-rolled steel. Acrylic shielding material 100% UV stabilized. No asbestos is used in this product.

FINISH — Five-stage iron-phosphate pretreatment ensures superior paint adhesion and rust resistance. Painted parts finished with high-gloss, baked white enamel.

ELECTRICAL — Standard ballast is electronic, thermally protected, resetting, Class P, HPF, non-PCB, UL Listed, CSA certified ballast, universal voltage and sound rated A.

Luminaire is suitable for damp locations. AWM, TFN or THHN wire used throughout, rated for required temperatures.

LISTING — Standard: UL. Optional: Canada — CSA or cUL; Mexico — NOM.

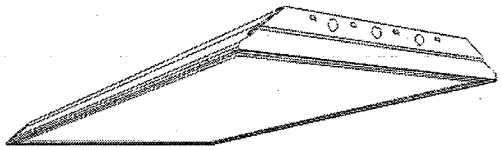
WARRANTY — Guaranteed for one year against mechanical defects in manufacture.

US patents: 6,210,025; 6,231,213; 2,288,471.

Note: Specifications subject to change without notice.

General Purpose T8 Troffer

GT8 2'x4'



2, 3 or 4 Lamps

GT8

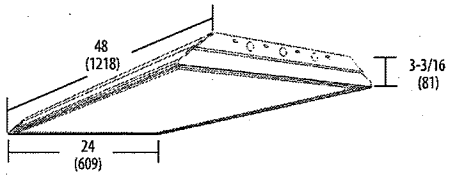
Specifications

Length: 48 (1218)

Width: 24 (609)

Depth: 3-3/16 (81)

Weight: 22 lbs (9.9 kg)



All dimensions are inches (millimeters).

ORDERING INFORMATION For shortest lead times, configure products using **bolded options**.

Example: 2GT8 2 32 A12 MVOLT GEB10IS

2GT8

Series	Trim type	Number of lamps	Lamp type	Door frame	Diffuser type	Voltage	Options[2]
2GT8 2" wide	**(blank)** Grid	**2**	**32** 32W T8 (48")	**(blank)** Flush steel, white	**A12** #12 pattern acrylic	**120**	**1/4** One 4-lamp ballast
	F Overlapping flanged	**3**		FN Flush aluminum, natural	**A12125** #12 pattern acrylic, .125" thick	277	**1/3** One 3-lamp ballast
		4		FM Flush aluminum, matte black	**A19** #19 pattern acrylic, .156" thick	347	**GEB10IS** Electronic ballast, <10% THD, instant start
		Not included		**FW** Flush aluminum, white	A15 #15 pattern acrylic, .2" thick	MVOLT	GEB10RS Electronic ballast, <10% THD, rapid start
				RN Regressed aluminum, natural	PC1S 1/2" x 1/2" x 1/2" plastic cube louver, silver	Others available	**EL** Emergency battery pack (nominal 300 lumens)
				RM Regressed aluminum, matte black	PC2S 1-1/2" x 1-1/2" x 1" plastic cube louver, silver w/ flange[1]		**EL14** Emergency battery pack (nominal 1400 lumens)
				RW Regressed aluminum, white	PC3S 3/4" x 3/4" x 1/2" plastic cube louver, silver		GLR Internal fast-blow fuse
							GMF Internal slow-blow fuse
							LST Tandem-wired fixture pairs (shared ballasts)
							PWS1836 6' prewire, 3/8" dia., 18-gauge, 1 circuit
							LP_ Lamped, specify lamp type and color
							LP735 Lamped, 700-series, 3500K
							LP741 Lamped, 700-series, 4100K
							JP Palletized and stretch-wrapped without individual cartons; grid trim only
							CSA CSA Certified
							NOM NOM Certified

NOTES:

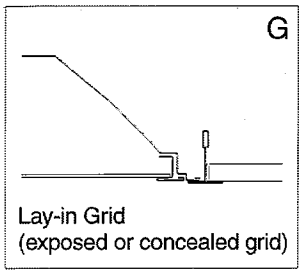
1 Available with flush door frames only.

2 MVOLT standard for 120-277V applications, 50-60 hz operation. Some options require voltage specified.

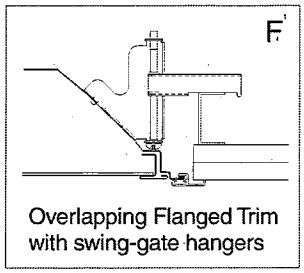
GT8 2'x4' Static T8 Troffer

MOUNTING DATA

Continuous row mounting of flanged units requires CRE and CRM trim options (see Options).



Lay-in Grid
(exposed or concealed grid)

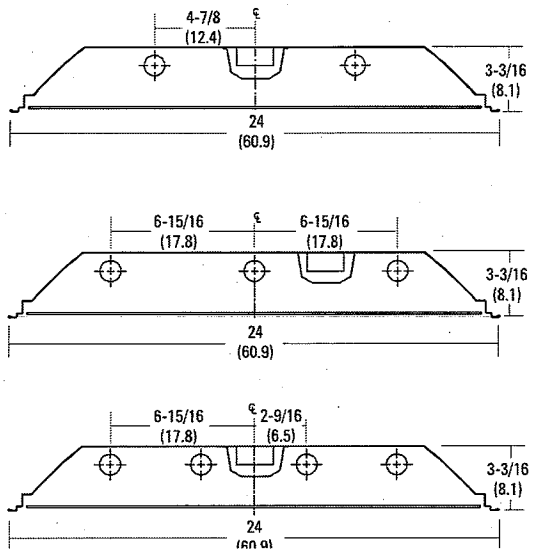


Overlapping Flanged Trim
with swing-gate hangers

NOTE:

1 Recommended rough-in dimensions for F-trim fixtures 24"x48" (Tolerance is +1/4"-0"). Swing-gate range 1-3/16" to 3-15/16". Swing-gate span 23-3/8" to 26-11/16". Fixture swing-gate points require additional 1-1/16" over nominal fixture height.

DIMENSIONS



PHOTOMETRICS

Calculated using the zonal cavity method in accordance with IESNA LM41 procedure. Floor reflectances are 20%.
Lamp configurations shown are typical. Full photometric data on these and other configurations available upon request.

2GT8 2 32 A12

Report LTL 7424
Lumens per lamp - 2850 – Lum. eff. - 81.7%
S/MH (along) 1.2 (across) 1.4

Coefficient of Utilization

Ceiling	80%			70%			50%		
Wall	70%	50%	30%	70%	50%	30%	50%	30%	10%
0	97	97	97	95	95	95	91	91	91
1	89	86	82	87	84	81	80	78	76
2	82	75	70	80	74	69	71	67	63
3	75	67	60	73	65	59	63	58	54
4	69	59	52	67	58	52	56	51	46
5	63	53	46	62	52	46	51	45	40
6	59	48	41	47	47	40	46	40	35
7	54	44	37	53	43	36	42	36	31
8	51	40	33	49	39	33	38	32	28
9	47	37	30	46	36	30	35	29	25
10	44	34	27	43	33	27	32	27	23

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1372	24.1	29.4
0-40	2277	39.9	48.9
0-60	3907	68.5	83.9
0-90	4658	81.7	100.0
90-180	0	0	0
0-180	4658	81.7	100.0

2GT8 3 32 A12 1/3

Report LTL 7421
Lumens per lamp - 2850 – Lum. eff. - 80.1%
S/MH (along) 1.2 (across) 1.4

Coefficient of Utilization

Ceiling	80%			70%			50%		
Wall	70%	50%	30%	70%	50%	30%	50%	30%	10%
0	95	95	95	93	93	93	89	89	89
1	88	84	81	85	82	79	79	76	74
2	80	74	69	78	72	68	70	66	62
3	74	66	59	72	64	58	62	57	53
4	68	58	52	66	57	51	55	50	46
5	62	52	45	61	52	45	50	44	40
6	58	47	40	56	47	40	45	39	35
7	54	43	36	52	42	36	41	35	31
8	50	39	33	49	39	32	38	32	28
9	47	36	30	45	36	29	35	29	25
10	44	33	27	43	33	27	32	27	23

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixture
0-30	2066	24.2	30.2
0-40	3412	39.9	49.8
0-60	5768	67.5	84.2
0-90	6851	80.1	100.0
90-180	0	0	0
0-180	6851	80.1	100.0

2GT8 4 32 A12 1/4

Report LTL 7425
Lumens per lamp - 2850 – Lum. eff. - 78.6%
S/MH (along) 1.2 (across) 1.4

Coefficient of Utilization

Ceiling	80%			70%			50%		
Wall	70%	50%	30%	70%	50%	30%	50%	30%	10%
0	94	94	94	91	91	91	87	87	87
1	86	82	79	84	81	78	77	75	73
2	79	73	68	77	71	67	68	64	61
3	72	64	58	70	63	57	61	56	52
4	66	57	51	65	56	50	54	49	45
5	61	51	45	60	51	44	49	43	39
6	57	47	40	55	46	39	44	39	34
7	53	42	36	51	42	35	40	35	31
8	49	39	32	48	38	32	37	31	27
9	46	35	29	45	35	29	34	29	25
10	43	33	27	42	32	27	32	26	22

Zonal Lumens Summary

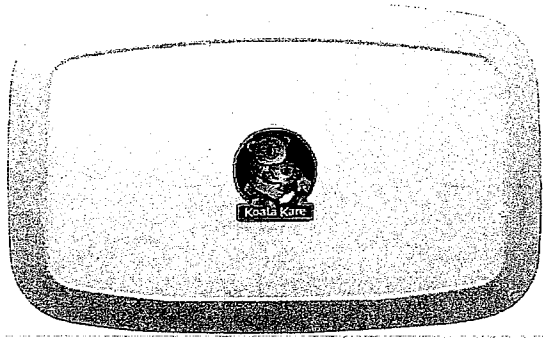
Zone	Lumens	%Lamp	%Fixture
0-30	2718	23.8	30.3
0-40	4481	39.3	50.0
0-60	7553	66.3	84.2
0-90	8965	78.6	100.0
90-180	0	0	0
0-180	8965	78.6	100.0

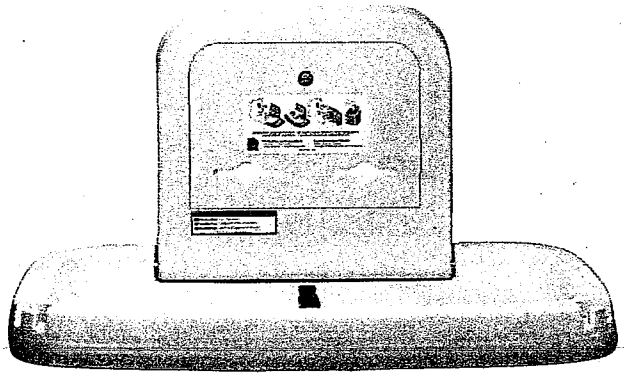
FLUORESCENT: One Lithonia Way Conyers, GA 30012 Phone: 800-315-4963 Fax: 770-981-8191 www.lithonia.com

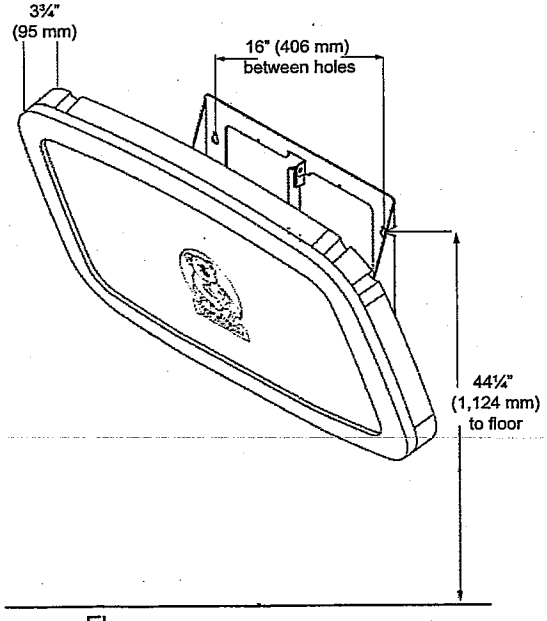
Rev. 12/20/11

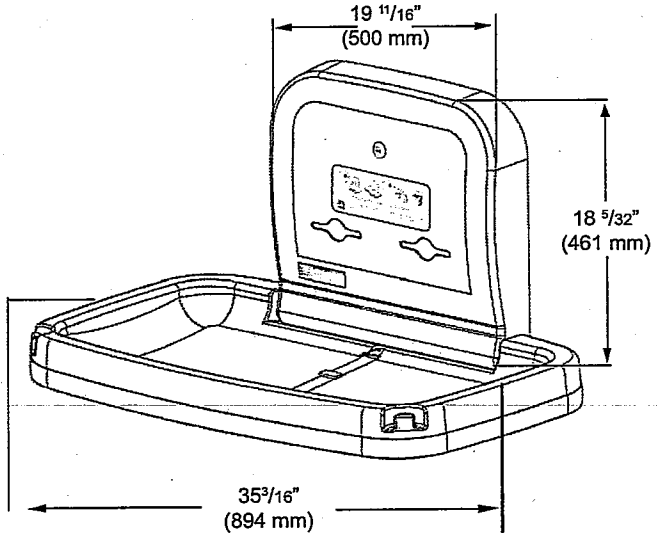
KOALA KARE PRODUCTS
KB200 HORIZONTAL WALL MOUNTED BABY CHANGING STATION

KB200-00 CREAM
KB200-01 GREY
KB200-05 WHITE GRANITE
KB200-11 EARTH



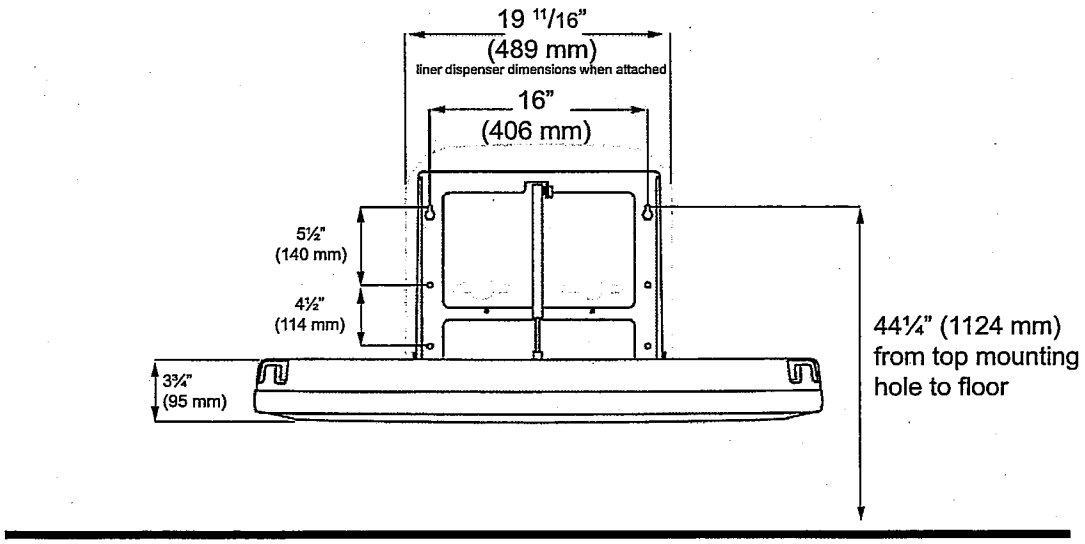


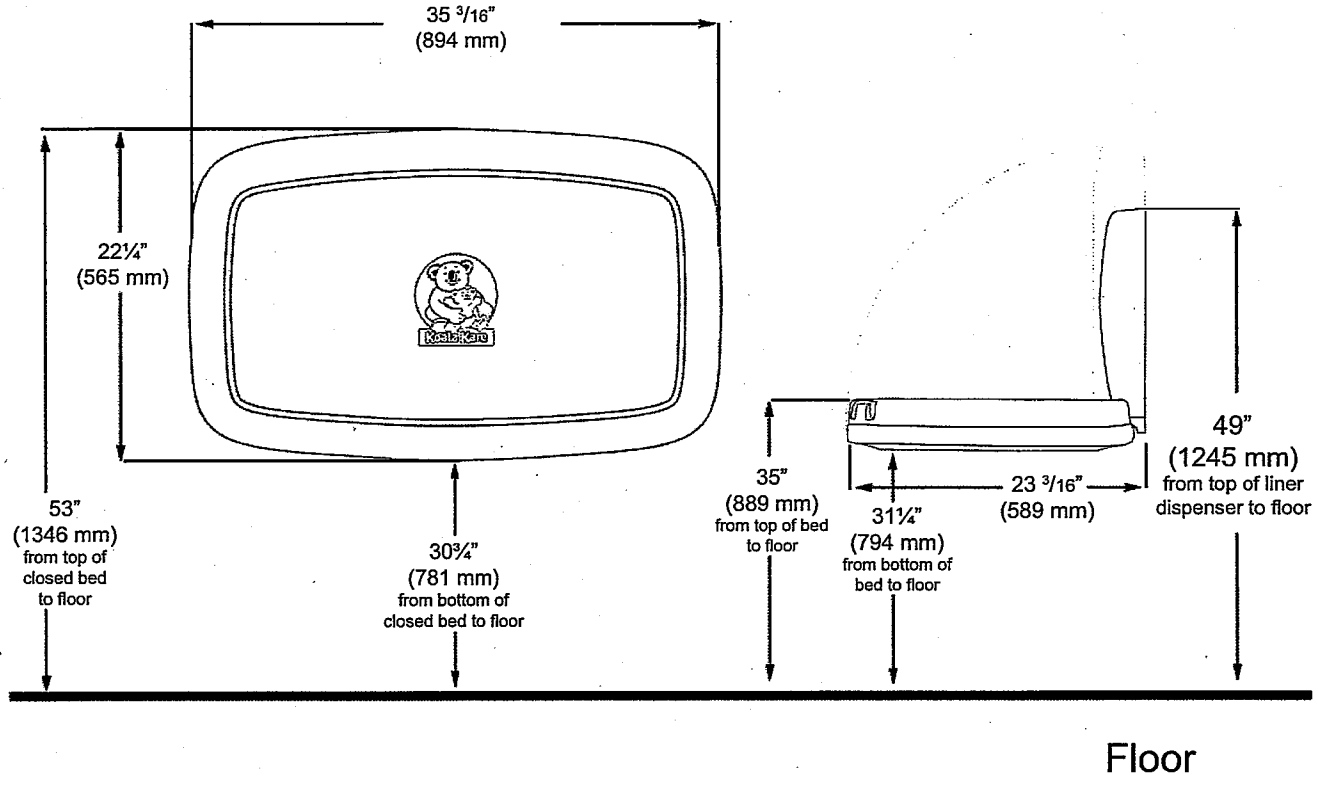




Koala Kare
We Care for Kids.

KB200 TECHNICAL DATA SHEET


19 11/16"
(489 mm)
liner dispenser dimensions when attached
16"
(406 mm)
5½"
(140 mm)
4½"
(114 mm)
3¾"
(95 mm)
44¼" (1124 mm)
from top mounting
hole to floor
Floor


35 3/16"
(894 mm)
22¼"
(565 mm)
53"
(1346 mm)
from top of
closed bed
to floor
30¾"
(781 mm)
from bottom of
closed bed to floor
35"
(889 mm)
from top of bed
to floor
31¼"
(794 mm)
from bottom of
bed to floor
23 3/16"
(589 mm)
49"
(1245 mm)
from top of liner
dispenser to floor
Floor

MATERIALS:

FDA approved injection-molded polypropylene with Microban® antimicrobial additive embedded into the bed surface. Reinforced steel-on-steel hinge mechanism and metal mounting chassis with mounting hardware included. Labelled usage instructions and safety messages in four languages. Optional Braille label available. Contoured changing surface area is 450 sq. in (11,430 sq. mm) and comes complete with nylon safety strap and bag hooks. Dual cavity liner dispenser holds approximately 50 KB150-99 bed liners.

OPERATION:

Concealed pneumatic cylinder and metal mounting chassis provides controlled, slow opening and closing of bed. Polypropylene is easy to clean and resists odors and bacterial growth. Complies with ASTM static load performance requirements when properly installed.

Warning: To ensure that the unit supports the intended loads, baby changing stations must be properly installed according to the manufacturer's instructions.

SPECIFICATION:

Baby changing station body shall be durable, injection-molded polypropylene. Design of unit shall be surface-mounted. Unit shall be equipped with a pneumatic cylinder for controlled opening and closing of bed. Bed shall be secured to metal mounting chassis with a concealed steel-on-steel hinge. No hinge structure shall be exposed on interior or exterior surfaces. Unit shall have mounting hardware included. Unit shall have Microban® antimicrobial embedded into plastic material on the changing surface. Unit shall conform to ANSI S117.1 Accessible and Usable Building and Facilities, ASTM F 2285-04 Standard Safety Performance Specification for Diaper Changing Tables for Commercial Use, ANSI Z535.4 Product Safety Signs and Labels, EN 12221:2008, ASTM G22 Antibacterial standards or local code if more stringent installation requirements are applicable for Barrier-Free accessibility. Unit shall comply with ADA regulations when properly installed. Bed shall have smooth concave changing area with a nylon safety strap and two hooks for bags or purses.

Unit shall have a built-in Liner Dispenser for use with 3-ply chemical free biodegradable bed liners, instructional graphics and safety messages in 4 languages. Optional Braille label is available. Unit shall be backed by manufacturer's 5-year limited warranty on materials and workmanship and include a provision for replacement caused by vandalism. Unit shall be manufactured in the U.S.A.

INSTALLATION:

To ensure proper installation and compliance to building codes, it is recommended that a qualified person or carpenter perform the installation of the unit. The unit must be properly installed onto a permanent wall that is capable of supporting significant weight and can accommodate the supplied installation hardware. The Koala Baby Changing Station meets ADA regulations when properly installed.

Drilling holes and mounting the station:

1. Remove changing station from the shipping container and check for any freight damage. If damage is found, please call Koala Kare Products' Customer Service at 888.733.3456. Remove "Installation Kit" and "Operator Kit" from box. Please give "Operator Kit" to facility manager or operator. Box should contain two pieces: the bed and metal mounting chassis and the wall mount liner dispenser. Identify the best location for installing the unit.

2. Standard Installation- Remove the bed and chassis from the box and select the wall area where the unit will be installed. Make sure you have taken into consideration the operating clearance of 9½" (241 mm) on both sides of the exposed chassis and 23 $^{3}/_{16}$" (589 mm) from wall surface when open. Measure from the floor 44¼" (1124 mm) on stud center and mark the wall. The mounting holes are designed for 16" stud centers. Ensure the locations you have marked for the mounting holes are level before drilling. Drill pilot holes for keyhole mounting using a 1/8" regular drill bit.

Masonry or Tile over Stud Wall- Use a 7/32" (6 mm) masonry drill bit for the pilot hole until you hit the stud. Change bit to 1/8" (3 mm) regular drill bit.

Metal Stud or Concrete Block- If the wall has wood studs that are not on 16" (406 mm) centers, has metal studs or an underlying surface of concrete block, drill with a ½" (13 mm) masonry bit. (You may have to purchase toggles before installing.) You must allow a minimum of inside wall space for toggles to turn depending on toggles used. Insert and tighten toggles.

3. Screw two of the mounting screws into the pilot holes leaving ¼" (6 mm) exposed to allow keyhole slots to be easily mounted over the screw heads. Place chassis over screws. After securing the unit using the keyhole slots, verify that the unit is level. Tighten top two screws so that they are flush with the wall. Use the four lower holes as a guide to mark and drill pilot holes. Use remaining four screws and four washers to complete installation of bed and metal mounting bracket. Insert washers over lower four screws. All SIX screws and four washers must be mounted to the chassis.

4. Ensure liner dispenser is free from damage. Remove key, unlock, and open liner dispenser lid. This will expose liner dispenser mounting holes. Line up dispenser mounting holes onto chassis and secure with the four screws provided. Close and lock the liner dispenser door.

5.Clean work area and inspect unit to ensure it opens and closes smoothly. Give Operator Kit and key to the facility operator. Replacement parts and additional liners can be purchased from your local distributor or by calling Koala at 888.733.3456 or 303.539.8300.

The illustrations and descriptions herein are applicable to production as of the date of this Technical Data Sheet. The manufacturer reserves the right to, and does from time to time, make changes and improvements in designs and dimensions without notice.

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Model No.	Cover Finish	Mounting	Time Cycle	Dryer Type
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XL-W	White	Surface	Automatic	Hand Dryer
XL-GR	Graphite	Surface	Automatic	Hand Dryer