OREGON UNIVERSITY SYSTEM STANDARD PUBLIC IMPROVEMENT CONTRACT

ADVERTISEMENT FOR BIDS

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 6, 2013** for the **Hannon Library Office 113A Remodel** project located on the campus of Southern Oregon University (SOU), in Ashland, Oregon.

This project includes all labor, equipment and materials necessary to partition one end of an existing classroom to create a new office inside the Hannon Library. Work includes selective demolition, metal framing, acoustical insulation, gypsum board wall, acoustical ceilings, a wood door, metal doorframe, door hardware, painting, wood floor base, electrical work, new lighting and incidental related work as described on the drawing.

A mandatory pre-bid conference will be held on Tuesday May 28, 2013 at 11:30 AM at the jobsite. All prospective bidders are required to attend. Prospective bidders shall meet with the Owner's Representatives in the Hannon Library lobby.

Bids must be submitted on the enclosed bid form and will be opened and publicly read aloud on **June 6**, **2013** 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. Bid bonds, performance bonds and payment bonds are not required for this project.

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 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: <u>http://www.ous.edu/about/bid</u>.

Oregon Bureau of Labor and Industries (BOLI) wage rates apply to this project only 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: May 21, 2013

OREGON UNIVERSITY SYSTEM

STANDARD PUBLIC IMPROVEMENT CONTRACT

SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

Project Name: Hannon Library Office 113A Remodel

Project Schedule:

Advertisement for Bids	May 21, 2013
Mandatory Pre-bid Conference	May 28, 2013, 11:30 a.m.
Deadline for Written Submittal of Questions/Requests for Clarifications	May 29, 2013, 4:00 p.m.
SOU to Issue Written Addendum in Response to Questions	May 30, 2013, 4:00 p.m.
Bid Deadline	June 6, 2013, 4:00 p.m.
Anticipated Notice of Award	June 7, 2013
Construction Schedule:	
Construction Schedule: Construction Start	June 17, 2013

Bid Submittal Requirements

A signed Bid Form must be submitted by <u>4:00 PM on June 6, 2013</u> 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 <u>GillilanD@sou.edu</u>.

Questions

All questions or requests for clarification must be addressed either in writing, fax, or email to:

Jim McNamara SOU Project Manager 351 Walker Avenue Ashland, OR 97520 Fax: 541-552-6235 Email: mailto:mcnamaraj@sou.edu

Questions must be submitted by **May 29, 2013 at 4:00 PM and** 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:	Hannon Library Office 113A Remodel
BID CLOSING:	June 6, 2013, 4:00 p.m. Local Time
BID OPENING:	June 6, 2013, 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 as follows:

_____ 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 bid 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 agree	es 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) (SEAL)	Authorized Officer of Corporation
	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 Hannon Library Office 113A Remodel

Bid Closing - Date: June 6, 2013 Time: 4:00 PM

SUBCONTRACTOR NAME (Please Print)	DOLLAR VALUE	CATEGORY/DIVISION OF WORK (Painting, electrical, landscaping, etc.)
Name	\$	

A non-responsive bid will not be considered for award.

Form submitted by (Bidders Name):_____

Contact Name: Phone No.:

SECTION 01 10 00 SUMMARY OF WORK

1.1 RELATED DOCUMENTS

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

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Project consists of:
 - 1. Subdividing an existing classroom to create a new private office in the Hannon Library.

1.3 REGULATORY REQUIREMENTS

- A. The following regulations are applicable to this project:
 - 1. 2010 Structural Specialty Code as adopted by the State of Oregon
 - 2. Oregon Mechanical Specialty Code Latest Edition
 - 3. Oregon Plumbing Specialty Code Latest Edition
 - 4. Oregon Electrical Specialty Code Latest Edition

1.4 CONTRACTOR USE OF PREMISES

- A. Use of the Site: Limit use of the premises to work in areas indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
 - 1. Owner Occupancy: Allow for Owner occupancy and use by the public during entire construction period. Cooperate with the Owner during construction operations to minimize conflicts and facilitate owner usage. Perform the Work so as not to interfere with the Owner's operations.
 - 2. Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles at all times. Coordinate with SOU for space necessary for equipment access or storage of materials.
- B. Use of the Existing Building: Maintain the existing building in a weather tight condition throughout the construction period.
 - 1. Repair damage caused by construction operations.
 - 2. Take all precautions necessary to protect the building and its occupants during the construction period.
 - 3. Schedule all noisy operations in advance with SOU.
 - 4. All utility interruptions must be scheduled with SOU 48 hours in advance.
 - 5. Clean-up at public spaces is required on a daily basis.

1.5 SCHEDULE

A. See Section B-3 (Supplemental General Conditions) for project schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

SECTION 01 20 00 PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Schedule of values.
- B. Applications for payment.
- C. Change procedures.
- D. Defect assessment.

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 5 days after date of Owner-Contractor Agreement.
- C. Format: Use 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 typed copies of each application on AIA Form G702 Application and Certificate for Payment and AIA G703 Continuation Sheet for G702.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Submit updated construction schedule with each Application for Payment.
- D. Payment Period: Submit at intervals stipulated in the Agreement.
- E. Submit with transmittal letter as specified for Submittals in Section 01 33 00.
- F. Substantiating Data: When Owner requires substantiating information, submit data justifying dollar amounts in question. Include the following with Application for Payment:
 - 1. Affidavits attesting to off-site stored products, with proof of insurance.
- G. Payment for products stored off the project site:
 - 1. When delay or added cost to Owner can be avoided by storing Products off Site Owner will make payment to Contractor for said Products provided Contractor shall:
 - 2. Locate Storage Facilities within 20 miles of Project Site or within 20 miles of jobsite.
 - 3. Make Storage Facilities available for Owner's visual inspection.
 - 4. Segregate and label Stored Products for specified Project.
 - 5. Assume all risk for loss.
 - 6. Assume responsibility for exceeding Product "shelf life."
 - 7. Protect Stored Products and provide applicable Insurance against their damage, discoloration, and theft, listing the Owner and any Mortgagee as Additional Named Insureds.

8. 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 Owner will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions via email.
- 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 an RFI form acceptable to the Owner.
- D. Owner may issue a Supplemental Instruction 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 Change Request to Owner, 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 016000.
- 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 the Owner.
- G. Construction Change Directive: Owner may issue a 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.
- H. Change Order Forms: SOU form.
- I. Execution of Change Orders: Owner will issue Change Orders for signatures of parties as provided in Conditions of the Contract.
- J. 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 Owner, it is not practical to remove and replace the Work, the Owner 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 Owner 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.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

SECTION 01 30 00 ADMINISTRATIVE REQUIREMENTS

PART I GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions
- B. Preconstruction meeting
- C. Progress meetings
- D. Pre-installation meetings

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.
- B. Coordinate space requirements, supports, and installation Work indicated diagrammatically on Drawings. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- C. 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.
- D. Use of the Site: Limit use of the premises to work in areas indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
 - 1. Owner Occupancy: Allow for Owner occupancy and use by the public during entire construction period. Cooperate with the Owner during construction operations to minimize conflicts and facilitate owner usage. Perform the Work so as not to interfere with the Owner's operations.
 - 2. Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles at all times. Coordinate with SOU for space necessary for equipment access or storage of materials.

1.3 PRECONSTRUCTION MEETING

- A. Owner will schedule meeting after Notice of Award.
- B. Attendance Required: Owner and Contractor. Subcontractors are encouraged to attend.
- C. Agenda:
 - 1. Distribution of Contract Documents.
 - 2. Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.
 - 3. Designation of personnel representing parties in Contract.
 - 4. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal requests, change orders, and contract closeout procedures.
 - 5. Scheduling and work sequencing.
 - 6. Miscellaneous administrative issues.
- D. Owner will provide a conference report and distribute copies within two days after meeting.

1.4 PROGRESS MEETINGS

A. Weekly progress meetings will be held at the jobsite. Day and time as mutually agreed upon by Contractor and Owner.

- B. Owner 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 and Owner as appropriate to agenda topics for each meeting.
- D. General Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of past 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. Owner will provide a conference report and distribute copies within two days after meeting.

1.5 **PRE-INSTALLATION MEETINGS**

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

PART 2 PRODUCTS

A. NOT USED

PART 3 EXECUTION

A. NOT USED

SECTION 01 33 00 SUBMITTAL PROCEDURES

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 with transmittal form. All submittals are to be transmitted electronically in pdf format.
- 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 for approval.
- E. Schedule submittals to expedite Project, and deliver to Owner. 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 is of benefit to the Owner's interests.

- H. Allow space on submittals for 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 7 days after date of Owner-Contractor Agreement. After review, resubmit required revised data within 3 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 7 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 for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. All submittals shall be transmitted electronically in pdf format.
- 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, distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01 70 00.

1.6 SHOP DRAWINGS

- A. Shop Drawings: Submit to owner 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. All shop drawings are to be submitted electronically in pdf format.
- D. After review, distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01 70 00.

1.7 SAMPLES

- A. Samples: Submit to Owner 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 for aesthetic, color, or finish selection.
 - 2. Submit samples of finishes from full range of manufacturers' standard colors, textures, and patterns. 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; Owner will retain one samples.
- F. After review, distribute information in accordance with SUBMITTAL PROCEDURES article and for record documents purposes described in Section 01 70 00.

1.8 TEST REPORTS

A. 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 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 Owner.

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 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.

1.11 ERECTION DRAWINGS

- A. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.
- B. Data indicating inappropriate or unacceptable Work may be subject to action by Owner.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

SECTION 01 40 00 QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control and control of installation.
- B. Tolerances
- C. References.
- D. Examination.
- E. 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 Owner 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 Owner 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 Owner before proceeding.
- E. Neither contractual relationships, duties, nor responsibilities of parties in Contract shall be altered from Contract Documents by mention or inference otherwise in reference documents.

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.

SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS

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. Provided by Contractor as required for construction operations.

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 Owner's public toilet room on the same floor provided extreme care is taken to keep it clean. Toilet room use privileges will be revoked immediately if there is any misuse by construction personnel.

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 AND STAGING

- A. SOU parking regulations will be enforced during this project. Contractor may purchase vendor parking permits from the SOU Parking Office to park in any SOU parking lot.
- B. Parking on City streets is available on a first come, first served basis.

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 existing facilities from damage due to construction operations.

1.12 SECURITY

A. Security Program: Protect Work and Owner's operations from theft, vandalism, and unauthorized entry. Building security will be maintained by SOU throughout the project. Contractor's operations must be scheduled when building is open to the public (typically Monday-Friday, 8:00 AM – 5:00 PM.

1.13 NOISE CONTROL

A. Provide methods, means, and facilities to minimize noise produced by construction operations. Schedule noisy operations in advance with SOU Library staff.

1.14 NO SMOKING

A. Smoking is prohibited on the entire SOU campus.

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 to the building and landscaping caused by the demolition work.
- C. Restore existing and permanent facilities used during construction to original condition.

PART 2 PRODUCTS NOT USED

PART 3 EXECUTION NOT USED

SECTION 01 60 00 PRODUCT REQUIREMENTS

PART I GENERAL

1.1 SECTION INCLUDES

- A. Products
- B. Product delivery
- C. Product storage
- 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

- 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

- 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.

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 substitution may be considered only 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.
- B. 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.
- C. 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 for review or redesign services associated with reapproval by authorities having jurisdiction.

PRODUCTS NOT USED

EXECUTION NOT USED

END OF SECTION 01 60 00

SECTION 01 70 00 CLOSEOUT REQUIREMENTS

PART I GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures
- B. Final cleaning
- C. Protecting installed construction
- D. Project record documents
- E. Product warranties

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 Owner review.
- B. Provide submittals required by the Bid Documents.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- D. 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 all surfaces including, but not limited to, all walls, ceilings, floors, glazing, light fixtures and accessories.
- C. Clean site and sweep paved areas.
- D. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.4 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.

1.5 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. Åddenda.
- 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, color 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 Owner with final Application for Payment.

1.6 PRODUCT WARRANTIES

- 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 and contain full information.
- D. Include Table of Contents and assemble in three D side ring binder with durable plastic cover.
- E. Submit prior to final Application for Payment.
- F. 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.

1.7 OPERATION AND MAINTENANCE (O&M) DATA

- A. For each product or system: List names, addresses, phone numbers and email addresses of subcontractors and suppliers, including local sources of supplies and maintenance parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Provide drawings to supplement product data and illustrate component parts of equipment and systems. Show control and flow diagrams where applicable. Do not use record documents as maintenance drawings.
- D. Typed Text: As required to supplement drawings and product data. Provide manufacturer's instructions.
- E. Instructions for Care and Maintenance: Provide complete manufactures' instructions for operation, care and maintenance.
- F. O & M Binders: Submit two (2) complete sets of O&M data in D-ring binders. Provide table of contents and typewritten tabs. Label binder cover and spine with the Project title and date of completion.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

SECTION 02 41 19 SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Removal or partitions, glazing and acoustical ceilings as required to complete new work.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.5 PREINSTALLATION MEETINGS

- A. Pre-demolition Conference: Conduct conference at Project site.
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.
 - 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 - 5. Review areas where existing construction is to remain and requires protection.
 - 6. Review routes and methods for removal of demolished materials from building.

1.6 FIELD CONDITIONS

- A. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Notify Owner of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: Hazardous materials are not anticipated to be encountered during this project. Notify the Owner immediately if any suspected hazardous materials are exposed during demolition.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Maintain existing utilities and protect them against damage during selective demolition operations.

PART 2 - PRODUCTS

2.1 **PEFORMANCE REQUIREMENTS**

- A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Disconnect and cap utilities as needed before starting selective demolition operations. Maintain utility services to the rest of the building throughout the construction period.
- B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with the intended demolition work, investigate and measure the nature and extent of conflict. Promptly submit a written report to Owner.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems to Remain: All existing services/systems are to remain after demolition.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Division 01 Section "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to building.
 - 1. Provide protection to ensure safe passage of people around selective demolition area.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Dispose of demolished items and materials promptly.
- B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Not permitted.
- C. Items to be salvaged to Owner:
 - 1. None

3.6 CLOSEOUT

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.
- B. Repair any damage to the existing building caused by the demolition work.
- C. Restore landscaping to pre-existing conditions upon completion of the work.

SECTION 06 20 00 FINISH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:1. Interior standing and running trim.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 1. Division 092116 Section "Gypsum Board Assemblies" for substrates.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced Installer who has completed finish carpentry similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance. All work shall conform to AWI, Custom Grade.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Storage: Keep materials under cover and dry. Protect against exposure to weather and contact with damp or wet surfaces. Stack lumber, plywood, and other panels. Provide for air circulation within and around stacks and under temporary coverings.
- B. Do not deliver interior finish carpentry until environmental conditions meet requirements specified for installation areas. If finish carpentry must be stored in other than installation areas, store only where environmental conditions meet requirements specified for installation areas.

1.5 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install interior finish carpentry until building is enclosed and weatherproof, wet-work in space is completed and nominally dry, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels through the remainder of construction period.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Lumber Standards: Comply with "American Hardwood Lumber Standard," for lumber and with applicable grading rules of inspection agencies certified by American Lumber Standards Committee Board of Review.

2.2 INTERIOR STANDING AND RUNNING TRIM

- A. Hardwood Trim: Provide finished hardwood lumber and moldings complying with the following requirements:
 - 1. Species and Cut:
 - a. Vertical grain, kiln-dried, white maple, selected for compatible grain and color.
 - b. Finish: Clear.

2.3 MISCELLANEOUS MATERIALS

A. Fasteners for Interior Finish Carpentry: Trim screws and other anchoring devices of type, size, material, and finish required for application indicated to provide secure attachment. Fill screw holes to match adjacent finish.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting installation and performance of finish carpentry. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.
- B. Condition finish carpentry to average prevailing humidity conditions in installation areas before installation, for a minimum of 24 hours unless longer conditioning is recommended by manufacturer.

3.3 STANDING AND RUNNING TRIM INSTALLATION

- A. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches long, except where necessary. Stagger joints in adjacent and related standing and running trim. Cope at returns and miter at corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints. Plane backs of casings to provide uniform thickness across joints, if required.
 - 1. Match color and grain pattern across joints.
 - 2. Install trim after gypsum board joint finishing operations are completed.
 - 3. Drill pilot holes in hardwood before fastening to prevent splitting. Fasten to prevent movement or warping. Countersink fastener heads on exposed carpentry work and fill holes.

3.4 CLEANING

A. Clean finish carpentry on exposed and semi exposed surfaces. Touch up factory-applied finishes to restore damaged or soiled areas.

3.5 PROTECTION

A. Provide final protection and maintain conditions that ensure finish carpentry is without damage or deterioration at the time of Substantial Completion.

SECTION 07 21 00 BUILDING INSULATION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:1. Sound-attenuation batts.
- B. Scope of Work: See construction documents for extent and location of acoustical insulation products required for this phase of work.

1.3 SUBMITTALS

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections.
- B. Product Data for each type of insulation product specified.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Protect insulation materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

PART 2 PRODUCTS

2.1 SOUND-ATTENUATION BATTS

A. Four-inch thick glass fiber sound attenuation batts.

2.2 INSULATION ACCESSORIES

A. As required to secure sound batts in place.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements of Sections in which substrates and related work are specified and to determine if other conditions affecting performance of insulation are satisfactory. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and application indicated.
- B. Install insulation that is undamaged, dry, unsoiled, and has not been exposed at any time to ice and snow.
- C. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Apply single layer of insulation to produce thickness indicated.

3.3 INSTALLATION OF ACOUSTICAL INSULATION

- A. Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.
- B. Install acoustical batts in cavities formed by framing members according to the following requirements:
 - 1. Use batt widths and lengths that fill cavities formed by framing members. Where more than one length is required to fill cavity, provide lengths that will produce a snug fit between ends.
 - 2. Place batts in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
 - 3. Install batts behind all electrical conduits and boxes.

3.4 PROTECTION

A. General: Protect installed insulation from damage due to physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

SECTION 07 90 00 JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes sealants for various applications, including those specified by reference to this Section.
- B. Related Sections include the following:
 - 1. Section 09 21 16 Gypsum Board Assemblies.
 - 2. Section 08 11 13 Hollow Metal Frames.

1.3 PERFORMANCE REQUIREMENTS

A. Provide joint sealants for interior applications that establish and maintain airtight and waterresistant continuous joint seals without staining or deteriorating joint substrates.

1.4 SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain each type of joint sealant through one source from a single manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration date, pot life, curing time, and mixing instructions for multi-component materials.
- B. Store and handle materials in compliance with manufacturer's written instructions to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not proceed with installation of joint sealants under the following conditions:
 - 1. When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer.
 - 2. When joint substrates are wet.
- B. Joint-Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.
- C. Joint-Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

PART 2 - PRODUCTS

2.1 PRODUCTS AND MANUFACTURERS

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work.

2.2 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
- B. Colors of Exposed Joint Sealants: As selected by Owner from manufacturer's full range for this characteristic.

2.3 LATEX JOINT SEALANTS

- A. Latex Sealant Standard: Comply with ASTM C 834 for each product of this description.
- B. Latex Sealant Where joint sealants of this type are indicated, provide products complying with the following:
 - 1. Products: Provide one of the following:
 - a. Chem-Calk 600; Bostik Inc.
 - b. NuFlex 330; NUCO Industries, Inc.
 - c. LC 160 All Purpose Acrylic Caulk; Ohio Sealants, Inc.
 - d. AC-20; Pecora Corporation.
 - e. Sonneborn Sonolac, 1-part acrylic.
 - 2. Applications: Interior vertical and horizontal joints between different materials

2.4 ACOUSTICAL JOINT SEALANTS

- A. Acoustical Sealant for Concealed Joints: For each product of this description indicated in the Acoustical Joint-Sealant Schedule at the end of Part 3, provide manufacturer's standard, nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic-rubber sealant recommended for sealing interior concealed joints to reduce airborne sound transmission.
- B. Acoustical Sealant for Concealed Joints Where joint sealants of this type are indicated, provide products complying with the following:
 - 1. Products: Provide one of the following:
 - a. Pro-Series SC-170 Rubber Base Sound Sealant; Ohio Sealants, Inc.
 - b. BA-98; Pecora Corporation.
 - c. Tremco Acoustical Sealant; Tremco.
 - 2. Applications: At top and bottom of walls and partitions.

2.5 JOINT-SEALANT BACKING

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, of type indicated below and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:
 - 1. Type C: Closed-cell material with a surface skin.
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint sealant manufacturer's written instructions and the following requirements:

- 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 - a. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air.
- 2. Remove laitance and form-release agents from concrete.
- 3. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Masking: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations of ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Acoustical Sealant Application Standard: Comply with recommendations of ASTM C 919 for use of joint sealants in acoustical applications as applicable to materials, applications, and conditions indicated.
- D. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- E. Install sealants by proven techniques to comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses provided for each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

- 1. Remove excess sealants from surfaces adjacent to joint.
- 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
- 3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.
- 4. Provide flush joint configuration, per Figure 5B in ASTM C 1193, where indicated.

3.4 CLEANING

A. Clean off excess sealants or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from the original work.

SECTION 08 11 13 STEEL DOOR FRAMES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:1. Steel door frames for wood doors.
- B. Related Sections include the following:
 - 1. Section 08 14 16 "Wood Doors" for wood doors installed in steel frames.
 - 2. Section 08 71 00 "Door Hardware".
 - 3. Section 08 80 00 "Glazing" for glass in glazed openings in frames.
 - 4. Section 09 21 16 "Gypsum Board Assemblies" for substrates.

1.3 SUBMITTALS

- A. Product Data: For each type of frame indicated, include door designation, type, level and model, material description, core description, construction details, label compliance, sound and fire-resistance ratings, and finishes.
- B. Door Schedule: Use same reference designations indicated on Drawings in preparing schedule for doors and frames.

1.4 QUALITY ASSURANCE

A. Steel Door and Frame Standard: Comply with SDI 100 (ANSI A 250.8), unless more stringent requirements are indicated.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver frames cardboard-wrapped or crated to provide protection during transit and job storage.
- B. Inspect frames on delivery for damage, and notify shipper and supplier if damage is found. Minor damages may be repaired provided refinished items match new work and are acceptable to Architect. Remove and replace damaged items that cannot be repaired as directed.

C. Store frames at building site under cover. Place units on minimum 4-inch- high wood blocking. Avoid using non-vented plastic or canvas shelters that could create a humidity chamber. If packaging becomes wet, remove cartons immediately.

PART 2 PRODUCTS

2.1 FRAMES

- A. General: Provide steel frames for doors, sidelights, relights, and other openings that comply with ANSI A250.8 and with details indicated for type and profile. Conceal fastenings, unless otherwise indicated.
- B. Frames of 16 gage (0.053-inch- thick) steel sheet for:1. Interior wood doors.
- C. Door Silencers: Except on weather-stripped frames, fabricate stops to receive three silencers on strike jambs of single-door frames and two silencers on heads of double-door frames.
- D. Supports and Anchors: Fabricated from not less than 19 gage (0.042-inch- thick), electrolytic zinc-coated or metallic-coated steel sheet.
- E. Inserts, Bolts, and Fasteners: Manufacturer's standard units. Where zinc-coated items are to be built into exterior walls, comply with ASTM A 153, Class C or D as applicable.

2.2 FABRICATION

- A. General: Fabricate steel frame units to comply with SDI 100 (ANSI A250.8) and to be rigid, neat in appearance, and free from defects including warp and buckle. Where practical, fit and assemble units in manufacturer's plant. Clearly identify work that cannot be permanently factory assembled before shipment, to assure proper assembly at Project site.
- B. Hardware Preparation: Prepare frames to receive mortised and concealed hardware according to final door hardware schedule and templates provided by hardware supplier. Comply with applicable requirements in ANSI A250.6 and ANSI A115 Series specifications for door and frame preparation for hardware.
- C. Reinforce frames to receive surface-applied hardware. Drilling and tapping for surfaceapplied hardware may be done at Project site.
- D. Locate hardware as indicated on Shop Drawings or, if not indicated, according to ANSI A250.8.
- E. Glazing Stops: Manufacturer's standard, formed from 20 gage (0.032-inch- thick) steel sheet.
 - 1. Provide screw-applied, removable, glazing stops on inside of glass, louvers, and other panels in doors.

2.3 FINISHES

A. Prime Finish: Manufacturer's standard, factory-applied coat of rust-inhibiting primer complying with ANSI A250.10 for acceptance criteria.

PART 3 EXECUTION

3.1 INSTALLATION

- A. General: Install steel frames, and accessories according to Shop Drawings, manufacturer's data, and as specified.
- B. Placing Frames: Comply with provisions in SDI 105, unless otherwise indicated. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is completed, remove temporary braces and spreaders, leaving surfaces smooth and undamaged.
 - 1. In metal-stud partitions, provide at least three wall anchors per jamb; install adjacent to hinge location on hinge jamb and at corresponding heights on strike jamb. Attach wall anchors to studs with screws.

3.2 ADJUSTING AND CLEANING

- A. Prime-Coat Touchup: Immediately after installation, sand smooth any rusted or damaged areas of prime coat and apply touch up of compatible air-drying primer.
- B. Protection Removal: Immediately before final inspection, remove protective wrappings from frames.

SECTION 08 14 16 WOOD DOORS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Solid-core doors with wood-veneer faces.
 - 2. Factory finishing flush wood doors.
 - 3. Factory machining for hardware.
- B. Related Sections include the following:1. Section 08 71 00 "Door Hardware".

1.3 SUBMITTALS

- A. Product Data: For each type of door. Include details of core and edge construction, trim for openings, and louvers.
 - 1. Include factory-finishing specifications.
- B. Door Schedule: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.
 - 1. Indicate dimensions and locations of cutouts.
- C. Samples for Verification: Samples of the following materials for verification:1. Door Finish to match existing Library doors. Samples not required.
- D. Manufacturer Warranty.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain flush wood doors through one source from a single manufacturer.
- B. Quality Standard: Comply with the following standard:
 - 1. AWI Quality Standard: AWI's "Architectural Woodwork Quality Standards" for grade of door, core, construction, finish, and other requirements.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect doors during transit, storage, and handling to prevent damage, soiling, and deterioration. Comply with requirements of referenced standard and manufacturer's written instructions.
- B. Mark each door with individual opening numbers used on Shop Drawings. Use removable tags or concealed markings.

1.6 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install doors until conditions for temperature and relative humidity have been stabilized and will be maintained in storage and installation areas during the remainder of the construction period to comply with requirements of the referenced quality standard for Project's geographical location.

1.7 WARRANTY

- A. General Warranty: Door manufacturer's warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Door Manufacturer's Warranty: Submit written agreement on door manufacturer's standard form, signed by manufacturer, Installer, and Contractor, agreeing to repair or replace defective doors that have warped (bow, cup, or twist) more than 1/4 inch in a 42-by-84-inch section or that show telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch span, or do not comply with tolerances in referenced quality standard.
 - 1. Warranty shall be in effect during the following period of time after the date of Substantial Completion:
 - a. Solid-Core Interior Doors: Life of installation.

PART 2 PRODUCTS

2.1 DOOR CONSTRUCTION, GENERAL

- A. Doors for Transparent Finish: Comply with the following requirements:
 - 1. Grade: Custom, with Grade A faces.
 - 2. Faces: White Maple to match existing doors.

2.2 FABRICATION

- A. Factory fit doors to suit frame-opening sizes indicated, with the following uniform clearances and bevels, unless otherwise indicated:
 - 1. Comply with clearance requirements of referenced quality standard for fitting.

- B. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame Shop Drawings, DHI A115-W series standards, and hardware templates.
 - 1. Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before factory machining.

2.3 FACTORY FINISHING

- A. General: Comply with referenced quality standard's requirements for factory finishing.
- B. Finish wood doors at factory.
- C. Transparent Finish: Comply with requirements indicated for grade, finish system, staining effect, and sheen.
 - 1. Grade: Premium and Custom.
 - 2. Finish: AWI System TR-2 catalyzed lacquer.
 - 3. Effect: Open-grain finish.
 - 4. Sheen: Satin.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine installed door frames before hanging doors.
 - 1. Verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with plumb jambs and level heads.
 - 2. Reject doors with defects.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: For installation, see Section 08 71 00 "Door Hardware."
- B. Manufacturer's Written Instructions: Install wood doors to comply with manufacturer's written instructions, referenced quality standard, and as indicated.
- C. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.
- D. Factory-Finished Doors: Restore finish before installation, if fitting or machining is required at Project site.

3.3 ADJUSTING AND PROTECTING

- A. Operation: Rehang or replace doors that do not swing or operate freely.
- B. Finished Doors: Refinish or replace doors damaged during installation.

C. Protect doors as recommended by door manufacturer to ensure that wood doors are without damage or deterioration at the time of Substantial Completion.

SECTION 08 71 00 DOOR HARDWARE

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and division 1 Specification Sections, apply to this Section.
- B. See Door and Hardware information on drawings.

1.2 SUMMARY

- A. Work Includes:1. Door hardware for swinging doors.
- B. Related Sections:
 - 1. Section 08 11 13 "Steel Frames"
 - 2. Section 08 14 16 "Flush Wood Doors"

1.3 SUBMITTALS:

- A. Product Data: For each item of door hardware.
- B. Final hardware schedule.
- C. Hardware templates: Furnished to each fabricator of doors and frames within two weeks of acceptance of final hardware schedule by Architect.
- D. Keying: By Owner.

1.4 QUALITY CONTROL

- A. Supplier: Hardware shall be supplied by a recognized builders' hardware supplier who has serviced construction in the project area for at least two years. Supplier's organization shall include a member of the American Society of Architectural Hardware Consultants who is available to respond to Owner, Architect, or Contractor questions.
- B. Installer: Hardware shall be installed by experienced tradesmen.
- C. All hardware shall comply with building code requirements.

PART 2 PRODUCTS

2.1 MATERIALS

A. Hardware:

- 1. Butt Hinges: Stanley.
- 2. Locksets and latch sets: Schlage D-Series.
- 3. Cylinders: Medeco: furnished and installed by Owner.
- 4. Stops and Holders: Ives WS407CCV
- 5. Thresholds, Gaskets, Weatherstrip: Pemko, Reese, Steelcraft, Zero.
- 6. Silencers: Builders Brass, Glynn-Johnson, Ives.

2.2 FINISHES

A. Unless specifically indicated otherwise, furnish hardware in brushed chrome finish (BHMA 626).

PART 3 EXECUTION

3.1 PERFORMANCE

- A. Installation of Mortised Door Hardware
 - 1. Install mortised hardware and then remove and store in original boxes in a secure place during application of door and frame finish.
 - 2. After completion of the frame finish reinstall all hardware.
- B. Installation of Surface Mounted Door Hardware:
 - 1. Install kickplates with oval head full thread screws spaced uniformly at a maximum of 5 inches on center along kick plate perimeter.
 - 2. Install thresholds with expansion shield and anchor bolts.
 - 3. Set thresholds inpolyisobutylene rubber caulking, CK-4.
 - 4. Mount surface closers on room side of corridor doors, interior side of exterior doors and vestibule side of vestibule doors.

3.2 ADJUSTING AND CLEANING

- A. Check and adjust operating hardware at each door to ensure smooth operation
- B. Adjust door control devices to compensate for final operation of heating and ventilating equipment.
- C. Clean exposed hardware surfaces not more than 7 days prior to substantial completion

SECTION 08 80 00 GLAZING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes glazing for the following products and applications, including those specified in other Sections where glazing requirements are specified by reference to this Section:
 - 1. Interior relights.
- B. Related Sections include the following:1. Section 08 11 13"Steel Doors and Frames" for relight frames.

1.3 PERFORMANCE REQUIREMENTS

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

1.4 DELIVERY, STORAGE, AND HANDLING

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

PART 2 - PRODUCTS

2.1 GLASS PRODUCTS

- A. Safety Glass: ASTM C 1048; Type I (transparent flat glass); Quality-Q3 (glazing select). Comply with ASTM C 1036.
 - 1. Clear, fully tempered with horizontal tempering.
 - 2. Comply with 16 CFR 1201 test requirements for Category II.
 - 3. 6mm minimum thick.

2.2 GLAZING TAPE

A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based elastomeric tape with a solids content of 100 percent; non-staining and non-migrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; packaged on rolls with a release paper backing; and complying with ASTM C 1281 and AAMA 800.

2.3 MISCELLANEOUS GLAZING MATERIALS

- A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.
- B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.
- C. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.
- D. Spacers: Elastomeric blocks or continuous extrusions with a Shore, Type A durometer hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
- E. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).
- F. Cylindrical Glazing Sealant Backing: ASTM C 1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.
- G. Perimeter Insulation for Fire-Resistive Glazing: Identical to product used in test assembly to obtain fire-resistance rating.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine framing glazing, with Installer present, for compliance with the following:
 - 1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
 - 2. Presence and functioning of weep system.
 - 3. Minimum required face or edge clearances.
 - 4. Effective sealing between joints of glass-framing members.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

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

3.3 GLAZING, GENERAL

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

3.4 GASKET GLAZING (DRY)

- A. Fabricate compression gaskets in lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.
- B. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.
- C. Center glass lites in openings on setting blocks and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Seal gasket joints with sealant recommended by gasket manufacturer.
- D. Install gaskets so they protrude past face of glazing stops.

3.5 CLEANING AND PROTECTION

- A. Protect glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels, and clean surfaces.
- B. Protect glass from contact with contaminating substances resulting from construction operations.
- C. Remove and replace glass that is broken, chipped, cracked, or abraded or that is damaged from natural causes, accidents, and vandalism, during construction period.
- D. Wash glass on both exposed surfaces in each area of Project not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

SECTION 09 21 16 GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Non load-bearing steel framing members for interior partitions.
 - 2. Gypsum board assemblies attached to steel framing.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 1. Section 07 90 00 "Sealants".
 - 2. Section 08 11 13 "Steel Frames".

1.3 DEFINITIONS

A. Gypsum Board Construction Terminology: Refer to ASTM C 11 and GA-505 for definitions of terms for gypsum board assemblies not defined in this Section or in other referenced standards.

PART 2 PRODUCTS

2.1 STEEL FRAMING FOR INTERIOR PARTITIONS

- A. General: Provide steel framing members complying with the following requirements:1. Protective Coating: Manufacturer's standard corrosion-resistant coating.
- B. Steel Studs and Runners: ASTM C 645, with flange edges of studs bent back 90 degrees and doubled over to form 3/16-inch- wide minimum lip (return), and complying with the following requirements for minimum thickness of base (uncoated) metal and for depth:
 - 1. Thickness: 20 gage, typical.
 - 2. Thickness: nested 18 gage at each side of door frame.
 - 3. Depth: 3-1/2 inches, unless otherwise indicated.
- C. Deflection Track: Manufacturer's standard top runner designed to prevent cracking of gypsum board applied to interior partitions resulting from deflection of the structure above fabricated from steel sheet complying with ASTM A 653 or ASTM A 568. Thickness as indicated for studs, and width to accommodated depth of studs, and of the following configuration:
 - 1. Top Runner with Compressible Flanges: 2-1/2-inch- deep flanges with V-shaped offsets that compress when pressure is applied from construction above.

- D. Steel Rigid Furring Channels: ASTM C 645, hat shaped, depth and minimum thickness of base (uncoated) metal as follows:
 - 1. Thickness: 20 gage unless otherwise indicated.
 - 2. Depth: As indicated on drawings.
- E. Furring Brackets: Serrated-arm type, adjustable, fabricated from corrosion-resistant steel sheet complying with ASTM C 645, minimum thickness of base (uncoated) metal of 0.0329 inch, designed for screw attachment to steel studs and steel rigid furring channels used for furring.
- F. Steel Resilient Furring Channels: Manufacturer's standard product designed to reduce sound transmission, fabricated from steel sheet complying with ASTM A 653 or ASTM A 568 to form channel of depth indicated on drawings.
- G. Steel Flat Strap and Backing Plate: Steel sheet for blocking and bracing complying with ASTM A 653 or ASTM A 568, length and width as indicated, and with a minimum base metal (uncoated) thickness as follows:
 - 1. Thickness: 22 gage, unless otherwise indicated.
- H. Fasteners for Metal Framing: Provide fasteners of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel framing and furring members securely to substrates involved; complying with the recommendations of gypsum board manufacturers for applications indicated.

2.2 GYPSUM BOARD PRODUCTS

- A. General: Provide gypsum board of types indicated in maximum lengths available that will minimize end-to-end butt joints in each area indicated to receive gypsum board application.
 1. Widths: Provide gypsum board in widths of 48 inches.
- B. Typical Gypsum Wallboard: ASTM C 36 and as follows:
 - 1. Type: Type X.
 - 2. Edges: Tapered.
 - 3. Thickness: 5/8 inch.

2.3 JOINT TREATMENT MATERIALS

- A. General: Provide joint treatment materials complying with ASTM C 475 and the recommendations of both the manufacturers of sheet products and of joint treatment materials for each application indicated.
- B. Joint Tape for Gypsum Board: Paper reinforcing tape or self-adhesive open-weave glassfiber reinforcing tape, contractor's choice.
- C. Drying-Type Joint Compounds for Gypsum Board: Factory-packaged vinyl-based products complying with the following requirements for formulation and intended use.
 - 1. Ready-Mixed Formulation: Factory-mixed product.
 - a. All-purpose compound formulated for both taping and topping compounds.

2.4 TRIM ACCESSORIES

A. Accessories: Provide manufacturer's standard corner and trim accessories.

2.5 MISCELLANEOUS MATERIALS

A. General: Provide auxiliary materials for gypsum board construction that comply with referenced standards and recommendations of gypsum board manufacturer.

PART 3 EXECUTION

3.1 INSTALLING STEEL FRAMING, GENERAL

- A. Steel Framing Installation Standard: Install steel framing to comply with ASTM C 754 and with ASTM C 840 requirements that apply to framing installation.
- B. Install supplementary framing, blocking, and bracing at terminations in gypsum board assemblies to support fixtures, equipment services, heavy trim or similar construction. Comply with details indicated and with recommendations of gypsum board manufacturer or, if none available, with United States Gypsum Co.'s "Gypsum Construction Handbook."

3.2 INSTALLING STEEL FRAMING FOR WALLS AND PARTITIONS

- A. Install runners (tracks) at floors, ceilings, and structural walls and columns where gypsum board stud assemblies abut other construction.
- B. Install steel studs and furring in sizes and at spacings indicated on drawings. Extend partition framing full height to structural supports or substrates above suspended ceilings. Continue framing over frames for doors and openings and frame around ducts penetrating partitions above ceiling to provide support for gypsum board.
- C. Install sound attenuation, thermal insulation and vapor retarder where indicated per Section 07 21 00 "Building Insulation".

3.3 INSTALLING GYPSUM BOARD

- A. Gypsum Board Application and Finishing Standards: Install and finish gypsum panels to comply with ASTM C 840 and GA-216.
- B. Locate both edge or end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Avoid joints other than control joints at corners of framed openings where possible.
- C. Attach gypsum panels to steel studs so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

- D. Cover both faces of steel stud partition framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases that are braced internally.
 - 1. Except where concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
 - 2. Fit gypsum panels around ducts, pipes, and conduits.
 - 3. Where partitions intersect open concrete coffers, concrete joists, and other structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by coffers, joists, and other structural members; allow 1/4- to 3/8-inchwide joints to install sealant.
- E. Space fasteners in gypsum panels according to referenced gypsum board application and finishing standard and manufacturer's recommendations and as required by applicable Codes.

3.4 FINISHING GYPSUM BOARD ASSEMBLIES

- A. General: Treat gypsum board joints, interior angles, flanges of cornerbead, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for final wall finish.
- B. Prefill open joints, rounded or beveled edges, and damaged areas using setting-type joint compound.
- C. Apply joint tape over gypsum board joints, except those with trim accessories having flanges not requiring tape.
- D. Levels of Gypsum Board Finish: Provide the following levels of gypsum board finish per GA-214.
 - 1. Level 4 smooth finish for gypsum board surfaces, unless otherwise indicated.
- E. For Level 4 gypsum board finish, embed tape in joint compound and apply first, fill (second), and finish (third) coats of joint compound over joints, angles, fastener heads, and accessories. Touch up and sand between coats and after last coat as needed to produce a surface free of visual defects and ready for decoration.

3.5 CLEANING AND PROTECTION

- A. Promptly remove any residual joint compound from adjacent surfaces.
- B. Provide final protection and maintain conditions, in a manner acceptable to Installer, that ensure gypsum board assemblies are without damage or deterioration at the time of Substantial Completion.

C.

SECTION 09 51 00 ACOUSTICAL CEILINGS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Acoustical ceiling panels.
 - 2. Exposed ceiling panel suspension systems.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels and suspension system components to Project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.
- C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

1.4 COORDINATION

A. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

1.5 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed, are packaged with protective covering for storage, and are identified with labels describing contents.
 - 1. Acoustical Ceiling Units: Full-size units equal to 2.0 percent of amount installed.

PART 2 PRODUCTS

2.1 ACOUSTICAL PANELS

- A. Standard Acoustical Panel:
 - 1. 2' x 4' wet-formed mineral fiber panel
 - 2. Fine-fissured to match existing tile.
 - 3. Factory-finished white.
 - 4. Square edge.

2.2 METAL SUSPENSION SYSTEMS

- A. Metal Suspension System: Provide manufacturer's standard direct-hung metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable ASTM C 635 requirements.
 - 1. Style: Exposed tee match existing grid.
 - 2. Size: 15/16 inch wide.
 - 3. Finish and Color: White.
- B. Attachment Devices: Size for five times design load indicated in ASTM C 635, Table 1, Direct Hung, unless otherwise indicated.
 - 1. Comply with building code and City of Ashland requirements for seismic bracing.
- C. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:
 - 1. Zinc-Coated Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
 - 2. Size: Select wire diameter so its stress at three times hanger design load (ASTM C 635, Table 1, Direct Hung) will be less than yield stress of wire, but provide not less than 0.106-inch- diameter wire.
 - 3. Struts: Tubular struts to provide vertical stability of the system against seismic stresses.
- D. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates and structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage, and other conditions affecting performance of acoustical panel ceilings.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders, and comply with layout shown on reflected ceiling plans.

3.3 INSTALLATION

- A. General: Install acoustical panel ceilings to comply with publications referenced below per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."
 - 1. Standard for Ceiling Suspension Systems Requiring Seismic Restraint: Comply with ASTM E 580.
- B. Suspend ceiling hangers from building's structural members and as follows:
 - 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
 - 2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 - 3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
 - 4. Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure; that are appropriate for substrate; and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
 - 5. Do not attach hangers to steel roof deck. Attach hangers to structural members.
 - 6. Space hangers not more than 48 inches o.c. along each member supported directly from hangers, unless otherwise indicated; and provide hangers not more than 8 inches from ends of each member.
- C. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- D. Install acoustical panels with undamaged edges and fitted accurately into suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.
 - 1. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension system runners and moldings.
 - 2. For reveal-edged panels on suspension system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
 - 3. Install hold-down clips in areas indicated, in areas required by authorities having jurisdiction, and for fire-resistance ratings; space as recommended by panel manufacturer's written instructions, unless otherwise indicated or required.

3.4 CLEANING

A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

SECTION 09 90 00 PAINTING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes surface preparation, priming and field painting of the following:
 - 1. New gypsum board walls indicated to receive paint.
 - 2. Existing walls and ceilings indicated to receive paint.
 - 3. Exposed interior items and surfaces.
- B. Paint exposed surfaces, except where drawings indicate that a surface or material is not to be painted or is to remain natural. If the drawings do not specifically mention an item or a surface, paint the item or surface the same as similar adjacent materials or surfaces whether or not drawings indicate colors.
- C. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
- D. Related Sections include the following:
 - 1. Section 09 2116 "Gypsum Board Assemblies" for surface preparation for gypsum board.
 - 2. Section 08 11 13 "Steel Frames"

1.3 DEFINITIONS

- A. General: Standard coating terms defined in ASTM D 16 apply to this Section.
 - 1. Satin refers to low-sheen finish with a gloss range between 15 and 35 when measured at a 60-degree meter.
 - 2. Semigloss refers to medium-sheen finish with a gloss range between 30 and 65 when measured at a 60-degree meter.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Engage an experienced applicator who has completed painting system applications similar in material and extent to that indicated for this Project with a record of successful in-service performance.
- B. Source Limitations: Obtain block fillers, primers, and undercoat materials for each coating system from the same manufacturer as the finish coats.

1.5 PROJECT CONDITIONS

A. Apply finishes only when conditions meet the requirements specified by the finish manufacturer.

1.6 EXTRA MATERIALS

A. Furnish unused extra paint materials from the project to the Owner for extra stock.

PART 2 - PRODUCTS

- 2.1 PAINT
 - A. COLOR:1. Interior applications: Match existing wall and frame colors.

2.2 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1. Benjamin-Moore
 - 2. PPG
 - 3. Miller

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with the Applicator present, under which painting will be performed for compliance with paint application requirements.
 - 1. Do not begin to apply paint until unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
 - 2. Start of painting will be construed as the Applicator's acceptance of surfaces and conditions within a particular area.
- B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
 - 1. Notify the Owner about anticipated problems using the materials specified over substrates primed by others.

3.2 PREPARATION

- A. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of the size or weight of the item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
- B. Cleaning: Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings. Remove oil and grease before cleaning.
 - 1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.
 - 1. Provide barrier coats over incompatible primers or remove and reprime.
 - 2. Touch up bare areas and shop-applied prime coats that have been damaged. Wire-brush, clean with solvents recommended by paint manufacturer, and touch up with the same primer as the shop coat.
- D. Materials Preparation: Mix and prepare paint materials according to manufacturer's written instructions.
 - 1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
 - 2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.
 - 3. Use only thinners approved by paint manufacturer and only within recommended limits.

3.3 APPLICATION

- A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
 - 1. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
 - 2. Provide finish coats that are compatible with primers used.
 - 3. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before the final installation of equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
- B. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
 - 1. The number of coats and the film thickness required are the same regardless of application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.

- 2. Omit primer on metal surfaces that have been shop primed and touchup painted.
- 3. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance. Give special attention to ensure edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
- 4. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where application of another coat of paint does not cause the undercoat to lift or lose adhesion.
- C. Application Procedures: Apply paints and coatings by brush, roller or other applicators according to manufacturer's written instructions. Spray Painting is not permitted for this project.
 - 1. Brushes: Use brushes best suited for the type of material applied. Use brush of appropriate size for the surface or item being painted.
 - 2. Rollers: Use rollers of carpet, velvet back, or high-pile sheep's wool as recommended by the manufacturer for the material and texture required.
- D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide the total dry film thickness of the entire system as recommended by the manufacturer.
- E. Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn through or other defects due to insufficient sealing.
- F. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not complying with requirements.

3.4 CLEANING

- A. Cleanup: At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from the site.
 - 1. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping. Be careful not to scratch or damage adjacent finished surfaces.

3.5 PROTECTION

- A. Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.
- B. Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.
 - 1. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

3.6 INTERIOR PAINT SYSTEMS

- A. New Gypsum Board (General): Provide the following finish systems over new interior gypsum board surfaces:
 - 1. One coat primer/sealer.
 - 2. One finish coat Acrylic Latex. Match existing sheen.
- B. Ferrous Metal (Steel Frames): Provide the following finish systems over exterior ferrous metal. Primer is not required on shop-primed items.
 - 1. One coat of rust-inhibitive primer (on bare metal).
 - 2. Two finish coats Acrylic Latex. Match existing relight color and sheen.
- C. Existing Gypsum Board (General): Provide the following finish systems over previouslypainted interior gypsum board surfaces impacted by new construction:
 - 1. One coat of drywall primer.
 - 2. One finish coat Acrylic Latex. Match existing color and sheen.
- D. Transparent Finish (Wood Base): Comply with requirements indicated below for grade, finish system, staining, and sheen, with sheen measured on 60-degree gloss meter per ASTM D 523.
 - 1. Staining: Match existing base for color.
 - 2. Sheen: Satin 30-50 gloss units.
 - 3. Two coats polyurethane.

SECTION 26 00 00 ELECTRICAL DESIGN-BUILD REQUIREMENTS

Part 1 GENERAL

1.1 SECTION INCLUDES

- A. Demolition and relocation of existing electrical power and lighting as required for new construction.
- B. Installation of new light fixtures and occupancy sensors as shown on the drawings.

1.2 REQUIRED CONTRACTOR QUALIFICATIONS

A. Electrical Work shall be performed on a design/build basis by a qualified electrical contractor. An electrical contractor is required to provide system design, documentation, and to secure permits from the City of Ashland. Permit(s) will be paid for by SOU.

1.3 SUBMITTALS

- A. Provide for all fixtures, devices and basic materials per Section 01 33 00.
- B. Provide electrical design drawing showing all devices, wire sizes and circuit routing. Obtain plan approval from the Ashland Building Department prior to start of construction.

1.4 COORDINATION

A. The building will remain in operation throughout the construction period. Coordinate demolition of existing systems and installation of new work to maintain service for building occupants. Notify SOU project manager a minimum 24 hours in advance of power interruptions.

1.5 CLOSEOUT REQUIREMENTS

- A. Comply with Section 01 70 00 project closeout requirements.
- B. Provide an "as-built" record drawing upon completion of the work.
- C. Label all devices with panel and circuit number at the faceplate.
- D. Revise panel schedules as required for new construction

PART 2 PRODUCTS

2.1 LIGHTING FIXTURES

A. Provide (3) new florescent troffers T-8 electronic, program start, 2-tube. Lithonia 2-VT-8RT-BPNP (program start, high efficiency, .88 ballast factor) or approved equal.

2.2 OCCUPANCY SENSORS

A. Provide dual technology, wall-mounted sensor switch Wattstopper DW-100 or approved equal. Relocate existing occupancy sensor as shown on drawings.

2.3 RECEPTACLES

A. Duplex, straight parallel blade, 125 volt, 2 pole, 3 wire grounding. Brass grounding system and wiring strap. Hubbell 5362 or equal.

2.4 FINISH PLATES

A. Type 302 stainless steel, smooth satin finish.

2.5 BASIC MATERIALS

A. Raceways, wire, cable, connectors, boxes, wiring devices and similar materials shall be compatible with the electrical system in the existing building and must be Electrical Code approved for this application.

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.

3.2 INSTALLATION

- A. Install electrical equipment complete as directed by the manufacturer's installation instructions. When requirements of the installation instructions conflict with the contract documents request clarification from the Architect prior to proceeding with the installation.
- B. Schedule required inspections by the Ashland Building Department. Permit costs will be paid by SOU.

3.3 CLEANING

A. Leave the entire electrical system installed under this contract clean, dust-free and in perfect working order.