LARAMIE COUNTY COMMUNITY COLLEGE
EDUCATIONAL ENRICHMENT CENTER
BASEMENT RENOVATION

LARAMIE COUNTY COMMUNITY COLLEGE
1400 EAST COLLEGE DRIVE
CHEYENNE, WYOMING

DATE: 03/19/2019

Architect’s Project No. 17-07-10
Owner’s Project No. IFB-19150

TOBIN & ASSOCIATES, P.C.
ARCHITECTURE / PLANNING
DRAWINGS AND SPECIFICATIONS FOR
LARAMIE COUNTY COMMUNITY COLLEGE
EDUCATIONAL ENRICHMENT CENTER
BASEMENT RENOVATION

LARAMIE COUNTY COMMUNITY COLLEGE
1400 EAST COLLEGE DRIVE
CHEYENNE, WYOMING

Date: March 19, 2019
Architects’ Project No. 17-07-10
Owners’ Project No. IFB-19150

ARCHITECT:
Tobin & Associates, P.C.
P.O. Box 2420
Cheyenne, Wyoming 82003
(307) 632-3144

MECHANICAL & ELECTRICAL ENGINEERS:
Wood Environmental & Infrastructure Solutions, Inc.
920 E. Sheridan Street, Suite A
Laramie, Wyoming 82070
Mechanical - Rick Shields PE (307) 275-0722
Electrical - Nick Pickering PE (303) 919-2184

CIVIL ENGINEER:
Inberg-Miller Engineers
350 Parsley Boulevard
Cheyenne, Wyoming 82007
(307) 635-6827
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PROJECT: ECC Lower Level Renovation

BID No.: IFB-19150

DUE DATE & TIME: April 16, 2019 @ 3:00 p.m. (prevailing local time)

BID: Sealed Bids, subject to the terms, conditions and specifications herein stipulated and/or attached hereto, will be received at the Laramie County Community College Contracts Office located in the Administration Building on 1400 East College Drive, Cheyenne, WY 82007 at College Community Center room CCC-178 until April 16, 2019 at 3:00 p.m. (prevailing local time), and then publicly opened, read aloud and duly recorded.

PRE-BID MEETING: A MANDATORY Pre-Bid meeting and job walk will be held on March 28, 2019 @ 10:00 a.m. (prevailing local time) in the College Community Center room CCC-178. Attendance at the Mandatory Pre-Bid meeting is required to bid on this project. ***Doors will be locked at 10:00 a.m.***

Jamie Spezzano
Director, Contracting & Procurement
Laramie County Community College
1400 East College Drive
Cheyenne, WY 82007
Phone: (307) 778-1280
Fax: (307) 778-4300
E-mail: jspezzano@lccc.wy.edu
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SECTION ONE

DEFINITIONS AND TERMINOLOGY

Wherever used in this bid these or other related procurement documents, the following terms have meanings indicated which are applicable to both the singular and plural thereof.

**Addenda:** Written or graphic instruments issued prior to the opening of bids which clarify, correct, or change the bid documents or the related procurement documents.

**Architect:** Owner’s contract consultant and contracted project representative.

**Bid and/or Bid Documents:** Bid Document, applicable addenda, other affiliated or referenced data specific to said bid.

**Bid Process or Period:** Begins with issue/publication of bid document to public sector, and concludes at the award of the bid.

**Bidder:** Vendor, firm, or contractor submitting a Bid

**Contractor:** Vendor, firm, or company awarded a contract or PO for this Bid

**Contract Document:** A legally enforceable (binding) agreement between two competent parties; evidenced by an offer and acceptance of offer. Document shall include by reference, all Bid Documents, contractor’s bid, negotiated documents, issued addendums, special or supplemental conditions, specifications, and any mutually agreed upon modifications, and/or additions.

**Firm:** Same as vendor or contractor

**Issuing Office:** The issuing office for this IFB is: Tobin & Associates, P.C., 1820 Dillon Avenue, Cheyenne, WY 820091

**LCCC:** Laramie County Community College (College) or Owner, one in the same.

**Purchase Order:** A contractual agreement with a vendor for goods or services that specifies payment terms, delivery dates, item identification, quantities, freight terms, and other obligations and conditions.

**Specifications:** Those portions of this proposal consisting of written or graphic technical descriptions of materials, equipment, construction systems, standards, workmanship, goods, services, and administrative details applicable thereto.

**Vendor:** Same as company/contractor/firm.

END OF SECTION ONE
SECTION TWO

INSTRUCTIONS TO BIDDERS AND BID REQUIREMENTS

1. GENERAL CONDITIONS

1.1 Notice is hereby given that LCCC will receive sealed bids up to 3:00 p.m. (prevailing local time), April 16, 2019, at that time to be publicly opened and recorded in the College Community Center room CCC-178, for the LCCC project in accordance with the requirements, terms, specifications, conditions, and provisions hereinafter contained.

1.2 Successful firm shall provide LCCC with the services and/or materials as defined by LCCC Policies and this certain Bid Package.

1.3 Bids must be received by the time and date specified. Bids received after the specified time and date will not be accepted and will be returned unopened to the respective firm.

1.4 Bids shall be sent to the LCCC Purchasing Office or hand-delivered prior to the Bid Opening in a sealed envelope (or package) marked “Sealed Bid”, and referencing the Bid # IFB-19150.

1.5 All bids shall be submitted on the LCCC “BID SUBMITTAL & PRICING DOCUMENT” and must be signed by an authorized official of the firm submitting the Bid.

1.6 Telephone, telegraph, or fax bids will not be accepted.

1.7 Any bid which modifies, deletes, or changes any of the conditions or provisions, specifications, or bid requirements will be rejected. Do not deface or alter any portion of the original Bid package.

1.8 By submitting this bid, each firm certifies under penalty of perjury that they have not acted in collusion with any other firm or potential firms. Neither the said bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the contract of which the attached bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement, collusion, communication or conference with any other bidder, firm or person to fix the price or prices in the attach bid or of any other bidder; to fix any overhead, profit, or cost element of the bid price or the bid price of any other bidder; or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the owner or any person interested in the proposed contract.
2. PREPARATION OF BID

2.1 Firms are expected to examine all Drawings, Specifications, instructions and/or requirements of this Bid package. Failure to do so will be at the bidder’s risk. The Bid and all referenced documents must be used in preparation of each bid. LCCC assumes no responsibility for errors, misinterpretations and/or verbal communication resulting from the use of incomplete Bid Documents.

2.2 Each firm shall furnish the information required by the Bid. The BID SUBMITTAL & PRICING DOCUMENT (see SECTION THREE) shall be completed, signed, and returned by the respective firm’s authorized agent. All required bid documents must be returned with the bidder’s sealed bid.

2.3 Time, if stated as a number of days, will be in calendar days.

2.4 Any clarification of instructions, terms and conditions, IFB document, or proposal preparation shall be made only by the Director of Contracting & Procurement listed in this Bid document under IFB SECTION TWO, Article 6, Paragraph 6.1. Verbal clarifications will not be binding upon LCCC or their Architect. Written clarifications will be by addenda and forwarded to all interested parties.

2.5 Written addenda will be issued by LCCC for any matters regarding submittal of Bid, or issues, questions, comments, and/or clarifications that will affect, alter, modify, or change the original Bid intent or language.

2.6 To ensure uniformity and consistency, strict rules will apply to the communication process and methods during the bid process, all inquiries shall be via written instrument, mailed, faxed or hand-delivered to the appropriate individual as detailed in IFB SECTION TWO, Article 6 Paragraph 6.1. All matters, issues, questions, answers, comments and/or clarifications which meet the criteria identified above in Paragraph 2.5 will be distributed in written format to all potential bidders.

2.7 Each erasure, marking, or other changes that appear on your Bid must be initialed individually by the person signing the Bid.

2.8 Any violation of Bid requirements shall be just cause for rejection of that particular bid without further consideration.

2.9 In the case of error in the extension of prices in the Bid, the unit price will govern. In case of discrepancy in the price between the written and numerical amounts, the written amount will govern.

2.10 All Bid prices shall be quoted F.O.B Destination (Cheyenne WY) with transportation payment terms prepaid and allowed.
3. **PRE-BID MEETING, SITE INSPECTION AND BID DOCUMENTS**

3.1 Prior to submitting bids, vendors are welcome to visit the campus to inform themselves thoroughly as to the conditions involved in providing the materials required by this Bid. Arrangements for such tours should be coordinated thru the Contracts Office.

3.2 A **MANDATORY** pre-bid meeting and job-walk will commence on March 28, 2019 @ exactly 10:00 am (prevailing local time); **doors will be locked at 10:00 a.m.** The meeting will be held in the College Community Center room CCC-178 on the Cheyenne WY campus. All potential bidders shall be present and signed in prior to the start of the mandatory Pre-Bid meeting. Once everyone has signed, the sign-in sheet will be taken and the meeting will “officially” start. Anyone not signed in at the “official” start of the meeting will be considered late and will not be allowed to bid on the project.

3.3 LCCC and Architect’s personnel will be present at the pre-Bid meeting to receive questions with respect to interpretation or clarification of this Bid. Any other request(s) by vendors for interpretation or clarification shall be in writing and shall be addressed to the office of the Director of Contracting and Procurement. The receipt of any request and/or corresponding reply will not alter the bid and bid due date. All requests for interpretations of Bid Documents and other questions received at the pre-Bid will be taken with the formal response through an Addendum and be issued to all plan holders.

3.4 Complete sets of the Bid Documents will be available at no charge via pdf format and may be obtained by going to the LCCC website [https://lccc.wy.edu/about/purchasing](https://lccc.wy.edu/about/purchasing).

3.5 Complete sets of the Bid Documents must be used in preparing bids, neither LCCC or Architect assumes any responsibility for errors or misinterpretations from the use of incomplete sets of Bid Documents.

3.6 LCCC and Architect in making copies of Bid Documents available on the above terms do so only for the purpose of obtaining bids for the work and/or services specified herein, and do not confer a license or grant for any other use.

4. **SUBMISSION / WITHDRAWALS / LATE BIDS / MODIFICATIONS**

4.1 Prospective vendors are instructed to send or deliver their sealed Bids complete with required “BID SUBMITTAL & PRICING DOCUMENT”, attachments, and addenda, enclosed in one sealed and secure box, envelope, or other package, in a manner that assures receipt by April 16, 2019 at 3:00 p.m. (prevailing local time). Package must be sealed, secured and marked in a prominent manner. A public opening and recording of each received bid will be conducted at this date and time. The Bid opening is a public meeting, open to anyone interested in attending.
4.2 Bids may be withdrawn or amended at any time prior to Bid due date. All such requests must be done via written instrument.

4.3 A Bid that is in the possession of the LCCC Contracts Office may be altered by a telegram, fax, or letter bearing the signature of the official authorizing the Bid, provided that it is received prior to the bid due date and time. Telephone or verbal alterations of a Bid will not be accepted.

4.4 Formal, advertised Bids indicate a date and time by which Bids must be received, Bids received after that time will be returned, unopened to the vendor.

4.5 Each firm submitting a bid agrees that their Bid shall remain valid for a minimum of thirty (30) calendar days from the date of closing of this Bid.

5. CERTIFICATE OF NON-DISCRIMINATION

5.1 The bidder hereby certifies that all persons employed by their firm, their affiliates, subsidiaries, or holding companies are treated equally by their firm without regard to or because of race, religion, ancestry, national origin or sex as required by federal and state anti-discrimination laws. The bidder further certifies and agrees that it will deal with subcontractors, bidders or vendors without regard to or because of race, religion, ancestry, national origin or sex. Violation of this certification may constitute a material breach of contract upon which the owner may determine to cancel, terminate, or suspend the contract.

6. QUESTIONS CONCERNING BID

6.1 All inquiries, matters, issues, questions, answers, comments, and/or clarifications concerning this Bid shall be directed to the following individual, and shall be done so via written instrument, mailed, faxed or hand-delivered to:

6.1.1 For matters pertaining to this Bid Document, contact;
- Jamie Spezzano, Director, Contracting & Procurement
- 1400 East College Drive
- Cheyenne, WY 82007
- Phone: (307) 778-1280
- Fax: (307) 778-4300
- E-mail: jspezzano@lccc.wy.edu

6.1.2 All matters, issues, questions, answers, comments, and/or clarifications concerning this Bid shall be submitted no later than April 4, 2019 at 5:00 p.m. MST and may be mailed, faxed, or hand-delivered.

6.2 All matters, issues, questions, answers, comments, and/or clarifications that alter, modify, or change the original Bid intent or
language will be addressed formally via a written Bid Addenda. Information gathered by bidders through verbal conversations, phone conversations, e-mails and fax transmittals will NOT be considered formal information and should NOT be used for Bid preparation.

6.3 All issued Addenda must be acknowledged by each respective firm submitting a Bid on the document located in IFB SECTION THREE, titled Addenda Acknowledgement Document.

7. CONTRACT CONDITIONS

7.1 The scope of work and/or services shall commence upon signing of a Contract.

7.2 The vendor who is awarded a Contract is prohibited from sub-contracting, assigning, transferring, or otherwise disposing of the agreement or its' rights, title or interest therein to any other party without the prior written consent of the Vice President of Administration and Finance Services or the Director of Contracting and Procurement, or their designated representative. All approved assignments or other transfers referred to herein must abide by the provisions of the Contract.

7.3 LCCC will execute the contract incorporating all of the specifications, requirements, terms, conditions, and provisions included in the Bid and any additional documents or data provided by LCCC or the successful firm and are deemed relevant for inclusion by LCCC.

7.4 The successful firm will be expected to properly and promptly execute this Contract. Failure to do so could result in cancellation of this Bid award to the recommended vendor. Should this happen, the Bid process may be started anew, if deemed necessary by LCCC.

8. INSURANCE REQUIREMENTS

8.1 Throughout the term of the Contract, the successful firm shall carry and pay the premium for Certificate of Liability Insurance per Exhibit “A”, with such policies of insurance limits satisfactory to LCCC as will protect LCCC; its Board of Trustees, officers, employees, Architect’s, and agents; individually and collectively from Worker’s Compensation claims and from any other claims for damages to property or for bodily injury, including death, which may arise from or in connection with the operations under this Contract, whether such operations be by the successful firm or by any subcontractor firm or anyone directly or indirectly employed by either of them. Such insurance shall cover all contractual obligations which the successful firm has assumed.

8.2 The limits of the insurance coverage(s) listed above shall be in compliance with IFB Document Exhibit “A”

8.3 Prior to the commencement of the Contract, the successful firm shall deliver certificates of insurance evidencing such policy or policies to
8.4 "Hold Harmless" Clause: [with statement on certificate that these endorsements are included in the policy(ies)]. The successful firm assumes the liability for all losses, damages (including loss of use), expenses, demands and claims in connection with or arising out of any injury or alleged injury to persons (including death) or damages or alleged damage to property, sustained or alleged to have been sustained in connection with or to have arisen out of the performance of the work by the successful firm, the subcontractor firms, and their agents, servants and employees, including losses, expenses, or damages sustained by LCCC. The successful firm hereby undertakes and agrees to indemnify and hold harmless LCCC; its Board of Trustees, officers, employees, Architect’s and agents; individually and collectively, from any and all such losses, expenses, damages (including loss of use), demands and claims, and shall defend any suit or action brought against them, or any of them, based on any such alleged injury (including death) or damage (including loss of use), shall pay all damages, judgments, costs, and expenses, including attorney’s fees in connection with said demands and claims resulting therefrom. However, successful firm does not assume liability for nor indemnify LCCC against any such losses resulting from the sole negligence of LCCC or its employees or agents.

8.5 "Cancellation" Clause: The policies of insurance covered by this certificate will not be allowed to expire, be canceled, terminated or materially altered prior to their maturity date unless there shall be given no less than thirty (30) days prior written notice by certified or registered mail to LCCC’s Director of Contracting & Procurement.

8.6 "Additional Insured" Clause: LCCC shall be listed as an additional named insured on all policies, but only with respect to operations of successful firm under the Contract.

8.7 The procuring of the insurance required under the Contract shall not relieve the successful firm of any obligation or liability assumed under this Contract, including specifically the Indemnification Agreement that follows below in Paragraph 8.8. The successful firm may carry at own expense such additional insurance as it may deem necessary. The successful firm shall assist and cooperate in every manner possible in connection with the adjustment of all claims arising out of successful firm’s operations within the scope provided for under the Contract, and shall cooperate with the insurance carrier in all litigated claims and demands, arising from said operations, which the insurance carrier or carriers are called upon to adjust or resist.

8.8 Indemnification Agreement: To the extent permitted by law, successful firm shall indemnify and hold harmless LCCC; and its Board of Trustees, officers, employees, Architect’s and agents; individually and collectively, from any and all losses, damages (including loss of use), expenses, demands and claims in connection with or arising out of
any injury or alleged injury to persons (*including death*) or damage or alleged damage to property, sustained or alleged to have been sustained in connection with or to have arisen out of the performance of the work by the successful firm, the subcontractor firms, and their agents, servants, and employees, including losses, expenses, or damages sustained by LCCC. The successful firm shall defend any suit or action brought against them, or any of them, based on any such alleged injury (*including death*) or damage (*including loss of use*), and shall pay all damages, judgments, costs, and expenses, including attorneys' fees in connection with said demands and claims resulting therefrom.

8.9 In the event that the successful firm shall fail to maintain and keep in force Comprehensive General Bodily Injury and Property Damage Liability Insurance, Workers’ Compensation Coverage, and other insurance coverage's, as hereinabove provided, LCCC shall have the right to cancel and terminate the Contract forthwith and without notice.

9. **APPLICABLE WYOMING STATE STATUTES**

9.1 LCCC shall apply the following State of Wyoming Statutes to this Bid.

9.1.1 §16-6-101 through 121 titled “Public Property – Public Works and Contracts”.

9.1.2 §16-6-201 through 206 titled “Preference for State Laborers”.

9.1.3 §16-6-701 through 708 titled “Construction Contracts with Public Entities”.

9.1.4 §16-1-1001 titled “Capital Construction Projects Temporary Restrictions”.

9.1.5 §27-4-401 through 413 titled “Prevailing Wages”.

9.2 Expenditures or contracts involving federal funds are subject to federal rules and regulations, therefore under these conditions, State of Wyoming preference laws do not apply.

9.3 Final payment will be made subsequent to a forty-one (41) day advertising period, as required by Wyoming Statute §16-6-117. The final payment is also conditioned upon receipt of a sworn affidavit as required by this Statute. Said affidavit shall be completed by Contractor stating that all claims for materials and labor under the contract have been paid in full. Should there be a disputed claim, the affidavit shall so state the exact amount to be withheld from the final payment.

9.4 Acknowledgement and compliance with applicable State Statutes is the sole responsibility of the “Prime” or “General” Contractor and all subcontractors. LCCC reserves the right to request written verification of same.
10. **LAWS AND REGULATIONS**

Successful firm shall comply with all laws, ordinances, and regulations of any applicable federal, state, county, or city government applicable to the performance of the services described herein. LCCC agrees to provide all cooperation reasonably necessary for such compliance. In addition, successful firm shall also comply with all LCCC policies and regulations as may currently and/or in the future pertain to service under the subsequent Contract. These laws, ordinances, regulations, and policies shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though written out in full.

11. **LICENSES, PERMITS AND TAXES**

Contractor shall secure and pay for all federal, state, and local licenses and permits required for the performance of the work and/or services provided for herein. LCCC will cooperate with successful firm in obtaining all licenses and permits and will execute such documents as shall be reasonably necessary or appropriate for such purposes. Successful firm shall pay for any and all taxes and assessments attributable to the performance of the contract work and/or services provided herein including but not limited to sales taxes, excise taxes, payroll taxes, and federal, state, and local income taxes.

12. **QUALIFICATIONS OF CONTRACTOR**

12.1 The contractor quoting on this project may be required to submit three (3) letters of reference from persons for whom they have done the type of work described by these specifications within the last three (3) years. In the event that the contractor has performed this type of work for Laramie County Community College within the last three (3) years, no letters of reference are required. In the event that such letters are not available, contractors shall supply the owner’s representative with the names, phone numbers, and addresses of persons or firms for whom they have done this type of work during the last three (3) years.

12.2 Contractor and each of its sub-contractors hereunder, if any, shall at its sole expense, obtain insurance as detailed in Exhibit “A” from reliable insurance companies acceptable to LCCC, with limits specified in U.S. currency or equivalent. Such insurance shall be in force at the time the contract has commenced and shall remain in force for the duration of this contract, unless a later date is specified by LCCC.

12.3 Contractor shall secure and pay for all federal, state or local licenses and/or permits required for this specific scope of work provided for herein.

12.4 The Contractor shall function as an independent contractor for the purposes of this Agreement and shall not be considered an employee of LCCC. It is intended that the fees paid hereunder shall constitute earnings from self-employment income. The Contractor shall assume sole responsibility for and indemnify LCCC against liability for any
debts, liabilities, taxes, duties, fees or fiscal charges that may be incurred by the Contractor in fulfilling the terms of this Agreement. LCCC will not withhold any amounts therefrom as U.S. Federal income tax withholdings from wages or as employee contributions under the U.S. Federal Insurance Contributions Act or make employer contributions thereunder with respect thereto. Contractor shall be solely responsible for the reporting, estimation and payment of all income taxes, fees, and other contributions on or attributable to self-employment income attributable to the fees payable hereunder.

13. **SAFETY AND HEALTH**

13.1 The successful firm shall comply with the Occupational Safety and Health Act (OSHA) of 1970 and the American Disability Act (ADA) of 1992 or the applicable standards promulgated under said Acts.

13.2 The successful firm shall take reasonable and proper care and shall use and maintain LCCC property, facilities and equipment under its care, custody, and control in a manner which shall not cause any violations, abuse, or misuse of said property, facilities, and/or equipment.

13.3 The contractor shall be responsible for implementing safety measures for the protection of their employees and members of the public during all phases of the contract work. The contractor shall be responsible for the supply and placement of traffic safety cones, barricades, warning signs, etc. Work shall be performed in compliance with OSHA regulations and other relevant and applicable codes and regulations.

13.4 If successful firm’s bid requires a capital investment for the performance of this Contract, such capital investment program shall be free of conditions which violate OSHA and ADA or other applicable standards. Should repairs, alterations, modifications, or replacements be required to comply with the cited Acts, such action shall be the responsibility of the successful firm. Should a determination be required as to whether a specific condition violates said Acts, such determination shall be made by a competent safety Architect or safety consultant.

13.5 Should successful firm furnish equipment for the performance of this Bid, such equipment shall be free of conditions which violate OSHA and ADA, or their applicable standards. Should repairs, alterations, modifications, or replacements be required to comply with the cited Acts, such action shall be the responsibility of successful firm.

13.6 The successful firm shall comply with and conform to all applicable fire, and public safety, laws, regulations, ordinances, code requirements, as well as LCCC’s safety regulations.
14. **HAZARDOUS MATERIALS**

14.1 The contractor agrees to indemnify and hold Laramie County Community College harmless for any release of any kind of toxic wastes or hazardous material, or any violation of any law or regulation of the EPA or DEQ that is caused by the contractor or any of the contractor’s subcontractors.

14.2 Contractor shall provide LCCC with a current copy of all applicable Material Safety Data Sheets (MSDS) for each chemical, material, or product used during the performance of this scope of work.

14.3 Contractor is responsible for ensuring that all personnel who handle chemicals, materials, or products (and their respective wastes) are knowledgeable and properly trained, and that these chemicals, materials, or products are properly used, applied, handled, stored, transported and disposed of in accordance with federal, state, and local rules, regulations, and/or requirements.

14.4 Contractor shall provide knowledge of proper spill prevention and spill response methods for all chemicals or hazardous materials in use.

14.5 Contractor shall NOT dispose of any hazardous waste on campus. Contractor is responsible for off-site hazardous waste disposal, and any associated costs, fees, or permits associated with such disposal.

15. **RESPONSIBILITIES OF BIDDER**

15.1 The firm awarded the Bid shall comply with all applicable City of Cheyenne WY, Laramie County WY, State of Wyoming, and federal laws, regulation, codes, and standards.

15.2 Each bidder is solely responsible for all costs borne and associated with the preparation and delivery of this Bid, and shall not be reimbursed by LCCC. Said costs may include (but not limited to) labor, travel, materials, licenses, administrative expenses, and personal charges.

15.3 It is the responsibility of each firm before submitting a Bid to:
   a) Examine, study, and be familiar with complete Bid and referenced documents.
   b) Visit the LCCC site and become familiar with local and site conditions, if necessary.
   c) Promptly give LCCC written notice of all conflicts, errors, ambiguities, or discrepancies that the bidder discovers in the Bid or its’ related documents.

15.4 Each Bid shall be accompanied by a bid bond, certified check, or cashier’s check in an amount of 5% of the Bid. The bid security shall be drawn upon a surety company with a rating of “A” or better according to the Best Publication and licensed in the state of Wyoming. The security shall be made payable without condition to
LCCC as a guarantee that if the bid is accepted, the bidder will enter into a contract with LCCC for the work prescribed by said bid. The bid security of all bidders will be retained until the contract is awarded or other disposition has been made. If the successful bidder fails to execute a contract and/or agreement and to furnish other required documentation within ten (10) days of notice of award, LCCC shall be entitled to collect the amount of the bidder’s proposal guarantee and costs of any legal fees incurred for collection of the bid bond or any damages incurred by LCCC as liquidated damages as to award the prescribed bid work by the successful bidder to another bidder or to re-advertise the bid or otherwise dispose of the said bid as LCCC may see fit.

15.5 The successful bidder shall be required as per Wyoming Statute §16-6-112 to provide a contractor’s performance and payment bond or other guarantee in an amount equal to 100% of the contract sum. If the contract sum is one hundred thousand dollars ($100,000.00) or less, other forms of bond or guarantee may be approved by LCCC prior to acceptance of such bond or guarantee. The bonding company must have a rating of “A” or better according to Best Publication.

15.6 Each applicant is solely responsible for any cost incurred prior to issuance of a legally executed contract. No property interest, of any kind or nature, shall accrue until a contract is awarded and signed by all parties.

15.7 Each applicant is solely responsible for any cost incurred prior to issuance of a legally executed contract. No property interest, of any kind or nature, shall accrue until a contract is awarded and signed by all parties.

15.8 **OSHA Training Certification:** For public construction contracts estimated to cost more than $30,000, contractors must certify in the bid or the contract that all employees to be employed at the worksite will have completed a course in construction safety and health that is at least ten hours (10-hour card) in duration and has been approved by the United States Occupational Safety and Health Administration.

16. **TRADE NAME AND SUBSTITUTION PROVISIONS**

16.1 Trade names designated in the specifications are used as an acceptable standard quality. Products of other manufacturers will not be considered unless specifically stated. Substitutes or equals are not acceptable where non-substitution is specified in the Bid Document.

16.2 It is the intent of the Bid Documents that the work be completed in all respects in accordance with the subsequent Contract Documents. **This work is to be bid exactly as specified.** Where details and/or specifications are incomplete or unclear, the Bidder should request clarification in writing prior to the Bid due date.
17. BID EVALUATION CRITERIA / AWARD OF BID

17.1 In evaluating Bids, LCCC personnel will consider whether or not the Bid complies with the prescribed Bid requirements and specifications per the Bid Document.

17.2 Acceptable and responsive Bids will be evaluated per the criteria detailed in the Bid Documents. Any assumptions, exceptions or exclusions related to any part of the Bid Documents may result in a bidder being disqualified or reduced in standing.

17.3 LCCC reserves the right to reject any or all Bids, including without limitation, if they are, in its' sole discretion judged unacceptable, non-responsive, non-conforming, conditional, to waive any technical or formal defect therein, to accept or reject any part of a Bid, to reject or disapprove of any vendor as may be in the best interests of LCCC.

17.4 Cost may not be the sole basis for selection, since it is in LCCC’s best interest to obtain materials and/or services which best meet our needs, specifications, and requirements. In addition to price, the following will be considered in the evaluation of this Bid:

17.4.1 The ability, capacity, and skill of the bidder to perform the service or provide the material required, including the sufficiency of financial resources available.

17.4.2 The character, integrity, reputation, judgment, and experience of the bidder.

17.4.3 The quality and quantity of performance of previous contracts.

17.5 Upon review of the Bids, LCCC reserves the right to request the following additional information:

17.5.1 A break-down of bid costs to a reasonable level of detail.

17.5.2 An accounting review of bidders costs and submitted Bid.

17.5.3 Written Bidder verification of Bid Pricing and Specifications.

17.5.4 Other additional information that may be applicable to the evaluation and award of this Bid.

17.6 The Bid will be awarded to the lowest, most responsive and most responsible bidder complying with the prescribed Bid requirements and specifications, provided the price is reasonable and it is in the best interests of, and most advantageous to LCCC to accept it. The Director of Contracting & Procurement reserves the right to reject any and all bids and to waive any informality in bids received whenever such rejection or waiver is in the best interest of LCCC. Said individual also reserves the right to reject the Bid of a bidder who has previously failed to perform properly or complete on time or on budget services
of a similar nature, or a Bid of a bidder whose investigation shows is not in a position to perform the specified service.

17.7 LCCC reserves the right to negotiate with the successful Bidder any required changes and/or modifications to this Bid prior to signature of a Contract, if deemed in the best interest of LCCC to obtain the objectives and intent of this Bid, including (but not limited to) budget compliance, scope of work modification, additions and/or deletions.

18. OWNERSHIP OF DOCUMENTS / COLLEGE PROPERTY

All drawings, specifications, pictures, data, information, documents, Bid related documents, and subsequent contract and/or PO documents are considered the sole property of LCCC and/or the Consulting Architect, and shall not be transmitted in any fashion or form without the express written consent of the LCCC legal counsel, Vice President of Administration and Finance Services, or their designated representative and the Consulting Architect’s Principal-in-Charge.

19. MATERIAL AVAILABILITY

19.1 It is the responsibility of each bidder to verify the availability of material(s), delivery schedules, fabrication and manufacturing schedules and other pertinent data prior to submission of their Bid; and the responsibility of the successful bidder to provide same after award of the Bid. It is the responsibility of the bidder to notify LCCC immediately if material(s) specified are discontinued, replaced, or not available for an extended period of time. LCCC reserves the right to charge back additional costs, including but not limited to, freight, special handling, and purchase price difference due to delays, etc., to the successful bidder when items are not supplied as bid.

19.2 Failure of a bidder to furnish, within the time specified per the Bid for equipment, supplies, materials, services, and/or other items on which a Bid award is made, shall be cause for removal of bidder from the active list of bidders.

20. PUBLIC INFORMATION

All information, except that classified as confidential and/or proprietary, will become public information at the time that the Bid is awarded in accordance with applicable sections of the federal “Freedom of Information Act (FOIA) and Wyoming State Statute §16-4-201. Confidential and/or proprietary information must be marked “CONFIDENTIAL” and/or “PROPRIETARY” in bold letters in the upper right hand corner of each sheet (page) containing the confidential information. Price and information concerning the Bid specifications cannot be considered confidential. All information identified as confidential and/or proprietary will remain confidential unless LCCC is required by legal order to make it available to the public or to particular parties.
21. **PROTESTS**

Any firm or vendor who is allegedly aggrieved in connection with the solicitation of a Bid, or award of a contract may protest. The protest must be submitted in writing to the Director of Contracting & Procurement within five (5) days after notification to all firms of intent to award. If the protest is not resolved by mutual agreement, the Director of Contracting & Procurement will promptly issue a decision in writing to the protestant. If the protestant wished to appeal the decision rendered, such appeal must be made in writing to the LCCC Vice President of Administration and Finance Services. The decision of this VP will be final. Unless this procedure is followed, a protest need not be considered by LCCC.

22. **RESPONSIBILITIES OF LCCC**

22.1 Execute Notice of Award, Notice to Proceed, Contract and/or Agreement following approval and award to the successful bidder.

22.2 Provide to all bidders any applicable documentation, drawings, specifications, records, or other data required to complete this bid.

22.3 Provide as required, uniform and consistent written documentation to all potential bidders deemed to be support assistance and as necessary to complete a Bid submittal.

22.4 LCCC may conduct such investigations as deemed necessary to establish the responsibility, qualifications, and financial ability of a bidder, their suppliers, affiliates, consultants, and/or sub-contractors to perform the services in accordance with this Bid.

23. **PAYMENT SCHEDULE**

23.1 LCCC shall make progress payments against the Bid Compensation sum which shall be submitted on an “Application and Certification for Payment (AIA Document G702 or equivalent). Each Application for Payment shall be one (1) calendar month ending on the last day of the respective month.

23.2 Each payment shall include detailed invoices as required by LCCC policies and procedures or other applicable regulations.

23.3 Final payment will be made subsequent to a forty-one (41) day advertising period, as required by Wyoming Statute §16-6-116 and 117. The final payment is also conditioned upon receipt of a sworn affidavit as required by this Statute. Said affidavit shall be completed by Contractor stating that all claims for materials and labor under the contract have been paid in full. Should there be a disputed claim, the affidavit shall so state the exact amount to be withheld from the final payment.
24. **TAX EXEMPTION**

LCCC is exempt from Wyoming sales or use tax for direct purchases of materials and supplies. A copy of the Wyoming Sales Tax Exemption Form will be issued upon request. LCCC’s federal identification number is 83-6009473.

**END OF SECTION TWO**
SECTION THREE

BID SUBMITTAL & PRICING DOCUMENT

DO NOT MODIFY BID DOCUMENT – Any modification or alteration to this Document from its original format will result in rejection of the respective Bid. BID FORM TO BE COMPLETED IN ITS ENTIRETY, SIGNED IN INK, AND SUBMITTED IN ITS ENTIRETY.

Bid No.: IFB-19150

Bid Description: EEC Lower Level Renovation

Bid Due/Opening Date: April 16, 2019 @ 3:00 p.m. (prevailing local time)

This Bid shall be submitted to:
Laramie County Community College
College Community Center CCC-178
1400 East College Drive, Cheyenne, WY 82007

1. BID REQUIREMENTS AND FORMAT

1.1 An original Bid shall be completed on this document titled “BID SUBMITTAL & PRICING DOCUMENT” and submitted per the specifications and requirements of Bid No. IFB-19150. Failure to complete or submit any required portion of this BID SUBMITTAL & PRICING DOCUMENT; and/or to deface or alter any portion of the Bid Documents shall be cause for rejection of said Bid as being unacceptable, non-responsive, non-conforming or conditional.

1.2 The undersigned agrees that their Bid will not be withdrawn for a period of forty-five (45) days from the date of Bid opening.

1.3 The undersigned Bidder proposes and agrees, if this Bid is accepted, to perform all work and/or services as specified or indicated in the Bid Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bid Documents. Bidder acknowledges that they have included the cost of all insurance requirements, permits, bonds and taxes as required, and will execute and return same in the time allotted within the general conditions of the Bid Documents and subsequently issued Contract.

1.4 Bidder has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, and performance of the work and/or services. Bidder has correlated
the information known to bidder, information and observations from visits to the work site, reports and drawings identified in the Bid Documents.

1.5 Bidder is familiar with and is satisfied as to all federal, state and local laws and regulations that may affect cost, progress and performance of the work and/or services.

1.6 Bidder does not consider that any further examinations, investigations, explorations, tests, studies, specifications, or date are necessary for the determination of this bid for performance of the work and/or services at the price(s) bid and within the times and in accordance with the other items and conditions of the Bid Documents.

1.7 Bidder has given LCCC and Architect written notice of all conflicts, errors, ambiguities or discrepancies that the bidder has discovered in the Bid Documents, and the written resolution thereof by LCCC and Architect is acceptable to bidder. The Bid Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the work and/or services for which this Bid is submitted.

1.8 Any assumption, exception or exclusion related to any part of the Bid Documents must be noted prior to Bid Due/Opening Date, and may result in bidder being disqualified or reduced in standing. Assumptions, exceptions or exclusions taken after issuance of a “Notice of Award” document may also result in disqualification.

1.9 Bidder acknowledges receipt of complete Bid Document package, including all incorporated and attached Bid Documents.

1.10 Acknowledgement and compliance with applicable State Statutes is the sole responsibility of the “Prime” or “General” Contractor and all subcontractors. LCCC reserves the right to request written verification of same.

2. PROJECT SCOPE AND DETAILS

2.1 The Work includes and consists of furnishing all labor, operations, materials, accessories, incidentals, services and equipment indicated, specified, mentioned, scheduled or implied per the Bid Documents for work on the specific aforementioned project. The specific Work includes: furnishing all labor, materials, services and equipment required for the renovation of the existing lower level of the Education Enrichment Center (EEC) on the Cheyenne, WY campus. The work shall include demolition of existing finishes, walls, a portion of the existing ramp, doors, windows and storefront at the West entrance. The renovation shall include new steel stud framed gypsum partitions, new windows at exterior and interior walls, new glass walls at conference rooms, new doors and frames, new finishes throughout, new suspended ceilings, relocating existing HVAC diffusers,
relocating existing electrical panel, a new water line for fire suppression, a new fire sprinkler riser and system for the lower level, new ADA restroom and new light fixtures. All materials, services and/or work not specifically mentioned which are necessary in order to provide a complete project shall be included in the bid and shall conform to all Local, State, and Federal requirements in accordance with the requirements, terms, specifications, conditions, and provisions hereinafter contained.

2.2 Project Representatives

**LCCC**
Bill Zink  
Director, Physical Plant  
(307) 778-1121  
bzink@lccc.wy.edu

**Architect’s Representative**  
Will W. Wedemeyer, AIA  
Tobin & Associates  
(307) 632-3144 x120  
will@tobin-assoc.com

2.3 Project Schedule

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release bid</td>
<td>March 19, 2019</td>
</tr>
<tr>
<td>Mandatory pre-bid meeting</td>
<td>March 28, 2019 @ 10:00 a.m.</td>
</tr>
<tr>
<td>Questions due</td>
<td>April 4, 2019</td>
</tr>
<tr>
<td>Issue addendum if necessary</td>
<td>April 9, 2019</td>
</tr>
<tr>
<td>Bid opening</td>
<td>April 16, 2019</td>
</tr>
<tr>
<td>Notice of Award</td>
<td>April 18, 2019</td>
</tr>
<tr>
<td>Notice to Proceed</td>
<td>April 29, 2019</td>
</tr>
<tr>
<td>Substantial Completion</td>
<td>August 16, 2019</td>
</tr>
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</table>

2.4 Liquidated Damages: For failure to complete the Work on time, it is mutually agreed by and between the parties hereto that time is of the essence and that in the case of the Contractor’s failure to complete the contract within the time specified and agreed upon (substantial completion date), the Owner will be damaged thereby; and because it is difficult to definitely ascertain and prove the amount of said damages, it is hereby agreed that the amount of such damages shall be the liquidated sum of one thousand, five hundred dollars ($1,500.00) per calendar day for every day’s delay in finishing the Work until such time as the Work is completed and accepted via written instrument by the Owner; and the Contractor hereby agrees that said sum shall be deducted from monies due the contractor under the contract or if no money is due the Contractor, the Contractor hereby agrees to pay to the Owner as liquidated damages, and not by way of penalty, such total sum as shall be due for such delay.

If the Contractor has not completed all Punch List items within sixty (60) days from when the list was generated, the Owner may address the Punch List items with other forces and back-charge the Contractor for those forces in addition to days of non-compliance.
3. **BASE BID PRICE SCHEDULE**

3.1 The undersigned, in compliance with the Bid Document package requirements and instructions, having read and examined same, and having visited the site of the proposed work, and being familiar with the conditions surrounding the Bid Project, including availability of materials, utilities and labor, proposes to perform the proposed scope of work for the proposed price which includes (but is not limited to) the furnishing of labor, materials, shop drawings (if required), transportation, tools, equipment, insurance, bonds, applicable taxes, temporary provisions, escalation, overhead and profits necessary for the completion of the work in accordance with and described, indicated or reasonably inferred per this certain Bid Document package.

3.2 Each submitted Bid shall provide a Base Bid per Paragraph 3.3 below. Lump sum Base Bid shall be written in words and in figures, discrepancies between words and figures will be resolved in favor of written words.

3.3 **Total Base Bid Price (Not to Exceed Sum of):**

<table>
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<tr>
<th>Total Written in Words</th>
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<tbody>
<tr>
<td>$_____________________</td>
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<tr>
<td>Total Written in Figures</td>
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</table>

3.4 **ADD Alternate 1:** access controls at three (3) cross corridor doors

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<th>Total Written in Words</th>
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<tr>
<td>$_____________________</td>
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<tr>
<td>Total Written in Figures</td>
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</tbody>
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3.5 **ADD Alternate 2:** solid surface in lieu of plastic laminate at all countertops

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<th>Total Written in Words</th>
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<tbody>
<tr>
<td>$_____________________</td>
</tr>
<tr>
<td>Total Written in Figures</td>
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</tbody>
</table>

3.6 **DEDUCT Alternate 3:** replacing the perforated metal ceilings above the ramp & in conference rooms with a 2x2 lay-in tile clouds

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<th>Total Written in Words</th>
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<tbody>
<tr>
<td>$_____________________</td>
</tr>
<tr>
<td>Total Written in Figures</td>
</tr>
</tbody>
</table>
4. STATE STATUTES AND REGULATIONS

WYOMING RESIDENT CONTRACTOR

4.1 Are you submitting this Bid as a Wyoming Resident Contractor?
☐ No
☐ Yes, my Contractor Residency Certification Number is ______________, and my bid complies with Wyoming Statutes §16-6-101 through 107 and §16-6-1001. This Bid will be awarded based on the Contractor’s statement of meeting the requirements of these Wyoming Statutes. Subsequent information verifying the statute retirements have been met may be required up to and including possible audits to confirm that the contractor has not subcontracted more than a total of 30% of the work covered by his contract to non-resident subcontractors and non-resident sub-tier contractors and that other applicable statute requirements have been met. (Certificate of Residency must be current and on file with the State of Wyoming Department of Employment, Labor Standards Division (307.777.7261).

4.2 Debarment/Suspension: A Vendor certifies, by submission of their respective Bid, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of State or Federal benefits by State or Federal court, or voluntarily excluded from participation in this transaction by any State or Federal department or agency. Submission is also agreement that LCCC will be notified of any change in this status. Additionally: 
- a) Have not within a three-year period preceding this transaction been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and,
- b) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or Local) with commission of any of the offenses enumerated in Paragraph “a” above; and have not within a three-year period preceding this transaction had one or more public transactions (Federal, State, or Local) terminated for cause or default.

Verification and Certification of Debarment Status
☐ Presently debarred, suspended, or excluded per the above criteria.
☐ Not presently debarred, suspended or excluded per the above criteria.

5. REQUIRED SUBMITTALS (SUBMIT WITH BID)

The following documents shall be included with your Bid submittal:

5.1 LCCC “BID SUBMITTAL & PRICING DOCUMENT
5.2 Bid bond or Bid security
5.3 Acknowledgement of any issued Addendums.
5.4 A list of substitutions, clarifications, qualifications, assumptions, or exceptions (if applicable).
5.5 Residency Certification
5.6 OSHA construction Training Certification: Ten (10) hour card for project manager or equivalent.
5.7 CSI Division Assignment Schedule.

6. **BID DOCUMENT CHECKLIST**

- LCCC “BID SUBMITTAL & PRICING DOCUMENT” completed, signed in ink and submitted.
- Bid Bond completed and submitted.
- Acknowledged any issued addendum(s) and submitted.
- A listing of substitutions, qualifications, exclusions, exceptions and/or clarifications, submitted on a company letterhead.
- Residency Certification submitted.
- CSI Division Work Assignment Schedule
- OSHA ten (10) hour card certification.

7. **APPENDIX – BID ATTACHMENTS**

The following documents are attached hereto and incorporated by reference and shall become a part and condition of this certain Bid.

7.1 Exhibit A: LCCC Insurance Requirements
7.2 Exhibit B: 2019 Building Construction Prevailing Wages
7.3 Exhibit C: CSI Division Work Assignment Schedule
7.4 Exhibit D: Architect’s Specification Package
7.5 Exhibit E: Architect’s Project Drawing Package

8. **POST-BID SUBMITTALS**

The undersigned also agrees to furnish the following post-bid submittals to LCCC within ten (10) days after Notice of Award:

8.1 Certificate of Liability Insurance
8.2 Construction Schedule
8.3 Schedule of Values
9. **ADDENDA ACKNOWLEDGEMENT**

9.1 All IFB Addenda must be acknowledged in writing and submitted with Bid. Confirmation and receipt of all issued Addenda is the responsibility of each prospective firm to verify. Verification can be obtained by contacting the LCCC Purchasing Office via e-mail at: jspezzano@lccc.wy.edu.

Bid No.: IFB-19150

**Project Description:** EEC Lower Level Renovation

I, the undersigned, hereby acknowledge receipt of the following addenda for LCCC Bid No IFB-19150:

Addendum No. _____; Addendum No. _____; Addendum No. _____; Addendum No. _____

___________________________________________________________________

Name of Bidder – Company Name

_________________________________________ ___________________________________________

Signature Printed Name

_________________________________________ ___________________________________________

Title Date
10. **SIGNATURE PAGE**

10.1 Signature page must be completed in its entirety and submitted with Bid Document package.

10.2 Signature page must be signed by firm’s authorized agent, failure to do so will result in rejection of said bid as being unacceptable and non-responsive.

The undersigned, as an authorized agent for the Firm named below, acknowledges that he/she has examined, read, and understands this Request for Bid with its incorporated or related documents, and hereby offers to furnish all labor, materials, equipment, services, and information necessary to comply with the requirements, terms, specifications, conditions, and provisions set forth herein.

Authorized Signature ____________________________

Printed Name ____________________________

Title ____________________________

Name of Firm ____________________________

Mailing Address ____________________________

City, State, Zip ____________________________

Phone # ____________________________

Fax # ____________________________

E-mail address ____________________________

Dated this _______ day of ____________________, 2019

Bidder must return this entire “BID SUBMITTAL & PRICING DOCUMENT”, along with each document described in Article 6 above titled Bid Document Checklist.

END OF SECTION THREE
SECTION 01 1000 - SUMMARY

PART 1 GENERAL

1.01 PROJECT
A. Project Name: Laramie County Community College Educational Enrichment Center (EEC) - Basement Renovation; 1400 East College Drive, Cheyenne, Wyoming.
B. Owner's Name: Laramie County Community College; 1400 East College Drive, Cheyenne, Wyoming 82007.
   1. Owner's Representative: Bill Zink, Director of Physical Plant, 1400 East College Drive, Cheyenne, Wyoming 82007.
C. Architect's Name: Tobin & Associates, P.C.; P.O. Box 2420, 1820 Dillon Avenue, Suite 200A, Cheyenne, Wyoming 82003.
D. The Project consists of the selective demolition and renovation of a portion of the basement (garden level) of the Laramie County Community College (LCCC) Educational Enrichment Center (EEC), removing a portion of the existing walls and doors and installing new walls and doors to reconfigure the space into offices and conference rooms. Existing mechanical and electrical systems are to be modified and changed as necessary for the new space layout. New lighting layouts, ceiling systems, wall finishes, and floor finishes are to be installed.

1.02 CONTRACT DESCRIPTION
A. Contract Type: A single prime contract based on a Stipulated Price.

1.03 DESCRIPTION OF ALTERATIONS WORK
A. Scope of demolition and removal work is indicated on the drawings and called for in the specifications of the Project Manual.
B. Renovate the areas, complete including operational mechanical and electrical work.
C. Refinish surface areas as specified.
D. Plumbing: Alter existing and add new construction. New unisex restroom is to be added as shown on the drawings. Keep existing plumbing system operational as much as possible, only shutting it down on a temporary basis for the selective construction of the space.
E. HVAC: Alter existing and add new construction. Keep existing mechanical system operational as much as possible, only shutting it down on a temporary basis for the selective construction of the space.
F. Electrical Power and Lighting: Alter existing and add new construction. Keep existing power and lighting system operational as much as possible, only shutting it down on a temporary basis for the selective construction of the space.
G. Fire Alarm: Alter existing and add new construction. Keep existing alarm system operational as much as possible, only shutting it down on a temporary basis for the selective construction of the space.
H. Owner will remove all furnishings from the spaces affected by the work before start of contractor's work.
I. Contractor shall remove and store selective items during the work, for later reinstallation by Contractor.
   1. Existing Fire Extinguisher Cabinets.

1.04 WORK BY OWNER
A. Items noted NIC (Not in Contract or By Owner) will be supplied and installed by Owner after Substantial Completion.

1.05 OWNER OCCUPANCY
A. Owner intends to continue to occupy adjacent portions of the existing building during the entire construction period.
B. Owner intends to occupy the Project upon Substantial Completion.
C. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
D. Schedule the Work to accommodate Owner occupancy.

1.06 CONTRACTOR USE OF SITE AND PREMISES

A. Construction Operations: Limited to areas noted on Drawings.
   1. Locate and conduct construction activities in ways that will limit disturbance to site.
   2. Staging and Material Storage at the site, will be discussed and determined at the
      Preconstruction Meeting.

B. Arrange use of site and premises to allow:
   1. Owner and public occupancy of adjacent areas.

C. Provide access to and from site as required by law and by Owner:
   1. Emergency Building Exits During Construction: Keep all exits required by code open
      during construction period; provide temporary exit signs if exit routes are temporarily
      altered.
   2. Do not obstruct roadways, sidewalks, or other public ways without permit.

D. Time Restrictions:
   1. Limit conduct of especially noisy work to the hours of the day as arranged with the Owner,
      prior to the work.
   2. Limit work conduct of the hours of the day as in the Contractor's Schedule, arranged with
      the Owner.

E. Utility Outages and Shutdown:
   1. Limit disruption of utility services to hours the building is unoccupied, or as arranged with
      the Owner.
   2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers
      and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
   3. Prevent accidental disruption of utility services to other building areas and facilities.

1.07 WORK SEQUENCE

A. Coordinate construction schedule and operations with Owner.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION
SECTION 01 1015 - ELECTRONIC DRAWINGS

PART 1  GENERAL

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

1.02 SUMMARY
   A. The Architect, if requested, will provide the General Contractor with one electronic copy of the
      Contract Document Drawings for distribution to subcontractors and suppliers as a convenience
      in the preparation of Shop Drawings and Site Work. The electronic copy will be provided on a
      compact disk or e-mail transfer in AutoCad format.
   B. The Architect shall be paid a service fee of One Hundred and no/100 Dollars per file ($100/file)
      in accordance with the Agreement. This fee shall be paid by the party requesting the CAD files.

1.03 REFERENCES
   A. A copy of the Agreement is included at the end of this Section.

PART 2 PRODUCT - (NOT USED)
PART 3 EXECUTION - (NOT USED)

END OF SECTION
SECTION 01 1015.01 - ELECTRONIC FILES AGREEMENT

AN AGREEMENT BETWEEN ARCHITECT-ENGINEER OF RECORD AND CONTRACTOR
FOR TRANSFER OF COMPUTER AIDED DRAFTING (CAD) FILES ON ELECTRONIC MEDIA

ARCHITECT-ENGINEER OF RECORD (AER)_________________________ CONTRACTOR_________________________

ARCHITECT PROJECT NO._________________________ DATE:_________________________

PROJECT NAME:_______________________________________________________________________________

LOCATION:

THE AER WILL PROVIDE THE FOLLOWING CAD FILES, DATED__________, FOR THE CONVENIENCE OF THE CONTRACT IN PREPARING SHOP FABRICATION DRAWINGS:

_____________________________________________________________________________________________

_____________________________________________________________________________________________

_____________________________________________________________________________________________

_____________________________________________________________________________________________

DRAWINGS WERE PREPARED ON THE FOLLOWING:

COMPUTER SOFTWARE: ________________________ VERSION_________________________

CONTRACTOR SHALL PAY AER A SERVICE FEE OF_________________________ ($________)

TERMS AND CONDITIONS:

A. AER makes no representation as to the compatibility of the CAD files with any hardware or software.

B. Since the information set forth on the CAD files can be modified unintentionally or otherwise, the AER reserves the right to remove all indicia of its ownership and/or involvement from each electronic display. This media should not be considered a certified document.

C. All information on the CAD files is considered instruments of service of the AER and shall not be used for other projects, for additions to this project, or completion of this project by others. CAD files shall remain the property of the AER, and in no case shall the transfer of these files be considered a sale.

D. AER makes no representation regarding the accuracy, completeness, or permanence of CAD files, nor of their merchantability or fitness for a particular purpose. Addenda information or revisions made after the date indicated on the CAD files may not have been incorporated. In the event of a conflict between the AER’s sealed Contract Drawings and CAD files, the sealed Contract Drawings shall govern. It is the Contractor’s responsibility to determine if any conflicts exist. The CAD files shall not be considered to be Contract Documents as defined by the General Conditions of the Contract for Construction.

E. The use of CAD files prepared by the AER shall not in any way obviate the Contractor’s responsibility for the proper checking and coordination of dimensions, details, member sizes...
and gage, and quantities of materials as required to facilitate complete and accurate fabrication
and erection.

F. The Contractor shall, to the fullest extent permitted by law, indemnify, defend and hold harmless
the AER, and its subconsultants from all claims, damages, losses, expenses, penalties and
liabilities of any kind, including attorney’s fees, arising out of or resulting from the use of the
CAD files by the Contractor, or by third party recipients of the CAD files from the Contractor.

G. The AER believes that no licensing or copyright fees are due to others on account of the
transfer of the CAD files, but to the extent any are, the Contractor will pay the appropriate fees
and hold the AER harmless from such claims.

H. Any purchase order number provided by the Contractor is for Contractor’s accounting purposes
only. Purchase order terms and conditions are void and are not a part of this Agreement.

I. Payment of the service fee is due upon receipt of the CAD files.

J. This Agreement shall be governed by the laws of the principal place of business of the AER.

AUTHORIZED ACCEPTANCE

BY ARCHITECT-ENGINEER

__________________________

SIGNATURE

__________________________

PRINT NAME AND TITLE

__________________________

DATE

END OF SECTION

BY CONTRACTOR

__________________________

SIGNATURE

__________________________

PRINT NAME AND TITLE

__________________________

DATE
SECTION 01 2000 - PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Procedures for preparation and submittal of applications for progress payments.
   B. Documentation of changes in Contract Sum and Contract Time.
   C. Change procedures.
   D. Procedures for preparation and submittal of application for final payment.

1.02 SCHEDULE OF VALUES
   A. Use Schedule of Values Form: AIA G703, edition stipulated (or an approved equivalent) in the Agreement.
      1. Format: Utilize the Project Table of Contents specification sections to identify each item with number and title of the specification section. Also identify site mobilization.
      2. Submit Schedule of Values in duplicate within 15 days after the date of Owner-Contractor Agreement.
   B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect for approval.

1.03 APPLICATIONS FOR PROGRESS PAYMENTS
   A. Payment Period: Submit at intervals stipulated in the Agreement.
   B. Use Form AIA G702 and Form AIA G703, edition stipulated (or an approved equivalent) in the Agreement.
   C. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
   D. For each item, provide a column for listing each of the following:
      1. Item Number.
      2. Description of work.
      4. Previous Applications.
      5. Work in Place and Stored Materials under this Application.
      6. Authorized Change Orders.
      7. Total Completed and Stored to Date of Application.
      8. Percentage of Completion.
     10. Retainage.
   E. Execute certification by signature of authorized officer.
   F. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
   G. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
   H. Submit one electronic and three hard-copies of each Application for Payment.
   I. Include the following with the application:
      1. Transmittal letter as specified for submittals in Section 01 3000.
      2. Construction progress schedule, revised and current as specified in Section 01 3000.
      3. Partial release of liens from major subcontractors and vendors.
      4. Affidavits attesting to off-site stored products.

1.04 MODIFICATION PROCEDURES
   A. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in Contractor's employ or subcontractors of changes to the Contract Documents.
B. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Architect will issue instructions (AIA Document G710 - Architect's Supplemental Instructions) directly to Contractor.

C. For other required changes, Architect will issue a document (AIA Document G701) signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
   1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
      a. For proposed changes to be considered by the Owner, Contractor to use AIA Document G709 (or an approved equivalent).
   2. Promptly execute the change.

D. For changes for which advance pricing is desired, Architect will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within ____ days.

E. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation. Document any requested substitutions in accordance with Section 01 6000.

F. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
   1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
   2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
   3. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.

G. Substantiation of Costs: Provide full information required for evaluation.
   1. On request, provide the following data:
      a. Quantities of products, labor, and equipment.
      b. Taxes, insurance, and bonds.
      c. Overhead and profit.
      d. Justification for any change in Contract Time.
      e. Credit for deletions from Contract, similarly documented.

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

I. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.

J. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.

1.05 APPLICATION FOR FINAL PAYMENT

A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

B. Application for Final Payment will not be considered until the following have been accomplished:
   1. All closeout procedures specified in Section 01 7000.
   2. All punch list items are complete__________.
PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION
**AIA Document G702™ – 1992**

**Application and Certificate for Payment**

<table>
<thead>
<tr>
<th>TO OWNER:</th>
<th>PROJECT:</th>
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<tbody>
<tr>
<td>FROM CONTRACTOR:</td>
<td>VIA ARCHITECT:</td>
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</table>

**CONTRACTOR’S APPLICATION FOR PAYMENT**

Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, AIA Document G703, is attached.

1. **ORIGINAL CONTRACT SUM** $0.00
2. Net change by Change Orders $0.00
3. **CONTRACT SUM TO DATE** (Line 1 + 2) $0.00
4. **TOTAL COMPLETED & STORED TO DATE** (Column G on G703) $0.00
5. **RETAINAGE:**
   a. **0% of Completed Work** (Column D on G703) $0.00
   b. **0% of Stored Material** (Column F on G703) $0.00
   Total Retainage (Lines 5a + 5b or Total in Column I on G703) $0.00
6. **TOTAL EARNED LESS RETAINAGE** (Line 4 Less Line 5 Total) $0.00
7. **LESS PREVIOUS CERTIFICATES FOR PAYMENT** (Line 6 from prior Certificate) $0.00
8. **CURRENT PAYMENT DUE** $0.00
9. **BALANCE TO FINISH, INCLUDING RETAINAGE** (Line 3 less Line 6) $0.00

**CHANGE ORDER SUMMARY**

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<th>ADDITIONS</th>
<th>DEDUCTIONS</th>
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<td>Total changes approved in previous months by Owner $0.00</td>
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<td>Total approved this Month $0.00</td>
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<td><strong>TOTALS</strong> $0.00</td>
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<td><strong>NET CHANGES by Change Order</strong> $0.00</td>
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The undersigned Contractor certifies that to the best of the Contractor’s knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

**ARCHITECT’S CERTIFICATE FOR PAYMENT**

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect’s knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

**AMOUNT CERTIFIED** $0.00

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

**ARCHITECT:**

By: __________________________ Date: __________

My Commission expires: __________________________

Notary Public: __________________________

State of: __________________________

County of: __________________________

Subscribed and sworn to before me this day of __________________________

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

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Continuation Sheet

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.
In tabulations below, amounts are stated to the nearest dollar.
Use Column 1 on Contracts where variable retainage for line items may apply.

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<th>ITEM NO.</th>
<th>DESCRIPTION OF WORK</th>
<th>SCHEDULED VALUE (D + E)</th>
<th>WORK COMPLETED FROM PREVIOUS APPLICATION (D + E)</th>
<th>THIS PERIOD</th>
<th>MATERIALS PRESENTLY STORED (NOT IN D OR E)</th>
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SECTION 01 2300 - ALTERNATES

PART 1 GENERAL
1.01 SECTION INCLUDES
   A. Description of Alternates.
   B. Procedures for pricing Alternates.

1.02 ACCEPTANCE OF ALTERNATES
   A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
   B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.03 SCHEDULE OF ALTERNATES
   A. Alternate No. 1 - Access Control at (3) cross corridor doors:
   B. Alternate No. 2 - Solid surface at counter tops in lieu of plastic laminate:
   C. Alternate No. 3 - Deduct Alternate for installation of standard lay-in tile ceiling clouds in lieu of perforated metal ceilings. See drawings:

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION
SECTION 01 2500 - SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Procedural requirements for proposed substitutions.

1.02 RELATED REQUIREMENTS (INCLUDED IN THIS SECTION)
A. Substitution Request Form - During Procurement: Required form for substitution requests made prior to award of contract (During procurement).
B. Substitution Request Form - During Construction: Required form for substitution requests made after award of contract (During construction).

1.03 RELATED REQUIREMENTS
A. Section 01 3000 - Administrative Requirements: Submittal procedures, coordination.
B. Section 01 6000 - Product Requirements: Fundamental product requirements, product options, delivery, storage, and handling.

1.04 DEFINITIONS
A. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.
  1. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
    a. Unavailability.
    b. Regulatory changes.
  2. Substitutions for Convenience: Proposed due to possibility of offering substantial advantage to the Project.
    a. Substitution requests offering advantages to the Owner or to the Contractor will not be considered, without strict approval of the Owner.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS
A. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
  1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
  2. Agrees to provide the same warranty for the substitution as for the specified product.
  3. Agrees to provide same or equivalent maintenance service and source of replacement parts, as applicable.
  4. Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Owner.
  5. Waives claims for additional costs or time extension that may subsequently become apparent.
  6. Agrees to reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
B. A Substitution Request for specified installer constitutes a representation that the submitter:
  1. Has acted in good faith to obtain services of specified installer, but was unable to come to commercial, or other terms.
C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
  1. Note explicitly any non-compliant characteristics.
D. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
  1. Forms indicated in the Project Manual are adequate for this purpose, and must be used.
E. Limit each request to a single proposed substitution item.

3.02 SUBSTITUTION PROCEDURES DURING PROCUREMENT
A. Instructions to Bidders specifies time restrictions for submitting requests for substitutions during the bidding period, and the documents required.
B. Submittal Form (before award of contract):
   1. Submit substitution requests by completing the form attached to this section. See this form for additional information and instructions. Use only this form; other forms of submission are unacceptable.

3.03 SUBSTITUTION PROCEDURES DURING CONSTRUCTION
A. Submittal Form (after award of contract):
   1. Submit substitution requests by completing the form attached to this section. See this section for additional information and instructions. Use only this form; other forms of submission are unacceptable.
B. Architect will consider requests for substitutions only within 15 days after date of submission.
C. Submit request for Substitution for Cause within 14 days of discovery of need for substitution, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
D. Submit request for Substitution for Convenience immediately upon discovery of its potential advantage to the project, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
   1. In addition to meeting general documentation requirements, document how the requested substitution benefits the Owner through cost savings, time savings, greater energy conservation, or in other specific ways.
   2. Document means of coordinating of substitution item with other portions of the work, including work by affected subcontractors.
   3. Bear the costs engendered by proposed substitution of:
      a. Owner's compensation to the Architect for any required redesign, time spent processing and evaluating the request.
      b. Other construction by Owner.
      c. Other unanticipated project considerations.
E. Substitutions will not be considered under one or more of the following circumstances:
   1. When they are indicated or implied on shop drawing or product data submittals, without having received prior approval.
   2. Without a separate written request.

3.04 RESOLUTION
A. Architect may request additional information and documentation prior to rendering a decision. Provide this data in an expeditious manner.
B. Architect will notify Contractor in writing of decision to accept or reject request.
   1. Architect's decision following review of proposed substitution will be noted on the submitted form.

3.05 ACCEPTANCE
A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.

3.06 CLOSEOUT ACTIVITIES
A. See Section 01 7800 - Closeout Submittals, for closeout submittals.
B. Include completed Substitution Request Forms as part of the Project record. Include both approved and rejected Requests.
3.07  ATTACHMENTS

A. A facsimile of the Substitution Request Form (During Construction) required to be used on the Project is included after this section.

END OF SECTION
## Pre-Bid Request for Substitution

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<tr>
<th>Date</th>
<th>Project</th>
<th>Project No.</th>
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<thead>
<tr>
<th>Contractor/Vendor</th>
<th>Address</th>
<th>City, State, Zip</th>
<th>Phone</th>
<th>E-mail</th>
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<th>Specified Product</th>
<th>Proposed Substitution</th>
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<thead>
<tr>
<th>Description/Name</th>
<th>Manufacturer</th>
<th>Model No</th>
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<th>Remarks</th>
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</table>

Will changes be required to the building design or drawing dimensions in order to properly install the proposed substitution?

- [ ] Yes
- [ ] No

Will the undersigned pay for changes to the building design, including engineering and drawing costs, caused by the requested substitution?

- [ ] Yes
- [ ] No

Does the manufacturer’s warranty of the proposed substitution differ from that specified?

- [ ] Yes
- [ ] No

I/we have investigated the proposed substitution and:

- [ ] Manufacturer certifies that the proposed substitution is appropriate for the proposed use and is equal or better than the specified product.
- [ ] Product Supplier certifies that the proposed substitution is appropriate for the proposed use and is equal or better than the specified product.
- [ ] Product Installer certifies that the proposed substitution is appropriate for the proposed use and is equal or better than the specified product.

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<th>Signature</th>
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## Post-Bid Request for Substitution

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<tr>
<th>Date</th>
<th>Project</th>
<th>Project No.</th>
<th>Contractor/Vendor</th>
<th>Address</th>
<th>City, State, Zip</th>
<th>Phone</th>
<th>E-mail</th>
<th>Specification</th>
<th>Section</th>
<th>Reason for Request</th>
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</table>

<table>
<thead>
<tr>
<th>Specified Product</th>
<th>Proposed Substitution</th>
</tr>
</thead>
</table>

### Description/Name
- Manufacturer
- Model No.

### Attachments
- Product Data
- Material Sample
- Sample Warranty

### Remarks
- Proposed Change to Contract Sum $0.00
- Proposed Change to Contract Time ____________ days

I/we have investigated the proposed substitution and:
- Believe that it is equal or superior in all respects to the original specified product.
- Will provide the same warranty as required.
- Will pay redesign and special installation costs caused by the use of this product.
- Will pay additional costs to other contractors caused by the substitution.
- Will coordinate the incorporation of the proposed substitution into the Work.
- Will modify other parts of the Work as may be necessary to complete the Work.

Signature

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SECTION 01 3000 - ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. General administrative requirements.
B. Electronic document submittal service.
C. Preconstruction meeting.
D. Progress meetings.
E. Construction progress schedule.
F. Progress photographs.
G. Coordination drawings.
H. Submittals for review, information, and project closeout.
I. Number of copies of submittals.
J. Requests for Interpretation (RFI) procedures.
K. Submittal procedures.

1.02 RELATED REQUIREMENTS

A. Section 01 6000 - Product Requirements: General product requirements.
B. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.
C. Section 01 7800 - Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.

1.03 REFERENCE STANDARDS


1.04 GENERAL ADMINISTRATIVE REQUIREMENTS

A. Comply with requirements of Section 01 7000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.
B. Make the following types of submittals to Architect:
   1. Requests for Interpretation (RFI).
   2. Requests for substitution.
   3. Shop drawings, product data, and samples.
   4. Test and inspection reports.
   5. Design data.
   6. Manufacturer's instructions and field reports.
   7. Applications for payment and change order requests.
   8. Progress schedules.
   9. Coordination drawings.
   10. Correction Punch List and Final Correction Punch List for Substantial Completion.
   11. Closeout submittals.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 ELECTRONIC DOCUMENT SUBMITTAL SERVICE

A. All documents transmitted for purposes of administration of the contract are to be in electronic (PDF, MS Word, or MS Excel) format, as appropriate to the document, and transmitted via an Internet-based submittal service that receives, logs and stores documents, provides electronic stamping and signatures, and notifies addressees via email.
   1. Besides submittals for review, information, and closeout, this procedure applies to Requests for Interpretation (RFIs), progress documentation, contract modification documents (e.g. supplementary instructions, change proposals, change orders),
applications for payment, field reports and meeting minutes, Contractor's correction punchlist, and any other document any participant wishes to make part of the project record.

2. It is Contractor's responsibility to submit documents in allowable format.

3. All other specified submittal and document transmission procedures apply, except that electronic document requirements do not apply to samples or color selection charts.

3.02 PRECONSTRUCTION MEETING

A. Schedule meeting after Notice of Award.

B. Attendance Required:
   1. Owner.
   3. Contractor.
   4. Subcontractors, at Contractor's discretion.

C. Agenda:
   1. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
   2. Submission of initial Submittal schedule.
   3. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
   4. Scheduling.

D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.03 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the work at maximum bi-monthly intervals.

B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.

C. Attendance Required:
   1. Contractor.
   2. Owner.
   3. Architect.
   4. Contractor's superintendent.
   5. Major subcontractors.

D. Agenda:
   1. Review minutes of previous meetings.
   2. Review of work progress.
   3. Field observations, problems, and decisions.
   4. Identification of problems that impede, or will impede, planned progress.
   5. Review of submittals schedule and status of submittals.
   6. Maintenance of progress schedule.
   7. Corrective measures to regain projected schedules.
   8. Planned progress during succeeding work period.
   10. Effect of proposed changes on progress schedule and coordination.
   11. Other business relating to work.

E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.04 CONSTRUCTION PROGRESS SCHEDULE

A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of work, with a general outline for remainder of work.
B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
C. Submit updated schedule with each Application for Payment.

3.05 PROGRESS PHOTOGRAPHS
A. Submit photographs after being taken, upon request by Owner or Architect.
B. Provide photographs of site and construction throughout progress of work.
C. In addition to periodic, recurring views, take photographs of each of important conditions to the Contractor as proof of existing conditions or new renovated conditions, affecting the work.

3.06 COORDINATION DRAWINGS
A. Provide information required by Project Coordinator for preparation of coordination drawings.
B. Review drawings prior to submission to Architect.

3.07 REQUESTS FOR INTERPRETATION (RFI)
A. Definition: A request seeking one of the following:
   1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in the Contract Documents.
   2. A resolution to an issue which has arisen due to field conditions and affects design intent.
B. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of the Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
   1. Prepare a separate RFI for each specific item.
      a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
      b. Do not forward requests which solely require internal coordination between subcontractors.
   2. Prepare in a format and with content acceptable to Owner.
      a. Use AIA G716 - Request for Information (or an approved equivalent).
   3. Combine RFI and its attachments into a single electronic file. PDF format is preferred.
C. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
   1. Official Project name and number, and any additional required identifiers established in Contract Documents.
D. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
E. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
   1. Indicate current status of every RFI. Update log promptly and on a regular basis.
   2. Note dates of when each request is made, and when a response is received.
   3. Highlight items requiring priority or expedited response.
   4. Highlight items for which a timely response has not been received to date.
F. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
   1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.
G. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.
1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.

2. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.

3.08 SUBMITTAL SCHEDULE
A. Submit to Architect for review a schedule for submittals in tabular format.
   1. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.

3.09 SUBMITTALS FOR REVIEW
A. When the following are specified in individual sections, submit them for review:
   1. Product data.
   2. Shop drawings.
   3. Samples for selection.
   4. Samples for verification.

B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in the contract documents.

C. Samples will be reviewed for aesthetic, color, or finish selection.

D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - Closeout Submittals.

3.10 SUBMITTALS FOR INFORMATION
A. When the following are specified in individual sections, submit them for information:
   1. Design data.
   2. Certificates.
   3. Test reports.
   4. Inspection reports.
   5. Manufacturer's instructions.
   6. Manufacturer's field reports.
   7. Other types indicated.

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

3.11 SUBMITTALS FOR PROJECT CLOSEOUT
A. Submit Correction Punch List for Substantial Completion.

B. Submit Final Correction Punch List for Substantial Completion.

C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 01 7800 - Closeout Submittals:
   1. Project record documents.
   2. Operation and maintenance data.
   3. Warranties.
   5. Other types as indicated.

D. Submit for Owner's benefit during and after project completion.

3.12 NUMBER OF COPIES OF SUBMITTALS
A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.

B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
   1. After review, produce duplicates.
2. Retained samples will not be returned to Contractor unless specifically so stated.

3.13 SUBMITTAL PROCEDURES

A. General Requirements:
   1. Use a separate transmittal for each item.
   2. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
   3. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
   4. 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 the requirements of the work and Contract Documents.
   5. Schedule submittals to expedite the Project, and coordinate submission of related items.
      a. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
      b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days.
   6. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
   7. Provide space for Contractor and Architect review stamps.
   8. When revised for resubmission, identify all changes made since previous submission.
   9. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
   10. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
   11. Submittals not requested will be recognized, and will be returned "Not Reviewed".

B. Product Data Procedures:
   1. Submit only information required by individual specification sections.
   2. Collect required information into a single submittal.
   3. Do not submit (Material) Safety Data Sheets for materials or products.

C. Shop Drawing Procedures:
   1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related work.
   2. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.

D. Samples Procedures:
   1. Transmit related items together as single package.
   2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.

3.14 SUBMITTAL REVIEW

A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action.

B. Submittals for Information: Architect will acknowledge receipt and review. See below for actions to be taken.

C. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.

D. Architect's and consultants' actions on items submitted for review:
   1. Authorizing purchasing, fabrication, delivery, and installation:
      a. "Approved", or language with same legal meaning.
      b. "Approved as Noted, Resubmission not required", or language with same legal meaning.
1) At Contractor's option, submit corrected item, with review notations acknowledged and incorporated.
   c. "Approved as Noted, Resubmit for Record", or language with same legal meaning.
2. Not Authorizing fabrication, delivery, and installation:

E. Architect's and consultants' actions on items submitted for information:
1. Items for which no action was taken:
   a. "Received" - to notify the Contractor that the submittal has been received for record only.
2. Items for which action was taken:
   a. "Reviewed" - no further action is required from Contractor.

END OF SECTION
PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
   1. Coordination Drawings.
   2. Administrative and supervisory personnel.
   3. Project meetings.
   4. Requests for Interpretation (RFIs).

B. Each contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific contractor.

C. Related Sections include the following:
   1. Division 01 Section "Construction Progress Documentation" for preparing and submitting Contractor's Construction Schedule.
   2. Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
   3. Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract.

1.03 DEFINITIONS

A. RFI: Request from Contractor seeking interpretation or clarification of the Contract Documents.

1.04 COORDINATION

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
   1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
   2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
   3. Make adequate provisions to accommodate items scheduled for later installation.
   4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.

B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
   1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
   1. Preparation of Contractor's Construction Schedule.
   2. Preparation of the Schedule of Values.
   3. Installation and removal of temporary facilities and controls.
   4. Delivery and processing of submittals.
   5. Progress meetings.
   6. Preinstallation conferences.
7. Project closeout activities.
8. Startup and adjustment of systems.
9. Project closeout activities.

D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work.

1.05 SUBMITTALS

A. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.

1. Content: Project-specific information, drawn accurately to scale. Do not base Coordination Drawings on reproductions of the Contract Documents or standard printed data. Include the following information, as applicable:
   a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
   b. Indicate required installation sequences.
   c. Indicate dimensions shown on the Contract Drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect for resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

2. Sheet Size: At least 8-1/2 by 11 inches but no larger than 24 by 36 inches.

3. Number of Copies: one electronic PDF copy of each submittal. Architect will return one electronic PDF copy.
   a. Submit one electronic PDF where Coordination Drawings are required for operation and maintenance manuals. Architect will retain two copies; remainder will be returned. Mark up and retain one returned copy as a Project Record Drawing.

4. Refer to individual Sections for Coordination Drawing requirements for Work in those Sections.

B. Key Personnel Names: Within 5 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
   1. Post copies of list in temporary field office. Keep list current at all times.

1.06 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.
   1. Include special personnel required for coordination of operations with other contractors.

1.07 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
   1. Attendees: Contractor to inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
   2. Agenda: Contractor to prepare the meeting agenda. Distribute the agenda to all invited attendees.
   3. Minutes: Contractor to record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
B. Preconstruction Conference: Contractor to schedule a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.

1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

2. Agenda: Discuss items of significance that could affect progress, including the following:
   a. Tentative construction schedule.
   b. Phasing.
   c. Critical work sequencing and long-lead items.
   d. Designation of key personnel and their duties.
   e. Procedures for processing field decisions and Change Orders.
   f. Procedures for RFIs.
   g. Procedures for testing and inspecting.
   h. Procedures for processing Applications for Payment.
   i. Distribution of the Contract Documents.
   j. Submittal procedures.
   k. Preparation of Record Documents.
   l. Use of the premises and existing building.
   m. Work restrictions.
   n. Owner's occupancy requirements.
   o. Responsibility for temporary facilities and controls.
   q. Parking availability.
   r. Office, work, and storage areas.
   s. Equipment deliveries and priorities.
   t. First aid.
   u. Security.
   v. Progress cleaning.
   w. Working hours.

3. Minutes: Contractor to record and distribute meeting minutes.

C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.

1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.

2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
   b. Options.
   c. Related RFIs.
   d. Related Change Orders.
   e. Purchases.
   f. Deliveries.
   g. Submittals.
   h. Review of mockups.
   i. Possible conflicts.
   j. Compatibility problems.
   k. Time schedules.
   l. Weather limitations.
   m. Manufacturer's written recommendations.
n. Warranty requirements.
o. Compatibility of materials.
p. Acceptability of substrates.
q. Temporary facilities and controls.
r. Space and access limitations.
s. Regulations of authorities having jurisdiction.
t. Testing and inspecting requirements.
u. Installation procedures.
v. Coordination with other work.
w. Required performance results.
x. Protection of adjacent work.
y. Protection of construction and personnel.

3. Contractor to record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.

4. Reporting: Contractor to distribute minutes of the meeting to each party present and to parties who should have been present.

5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D. Coordination and Progress Meetings: Conduct Project coordination meetings at bi-weekly intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.

1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

1) Review schedule for next period.

b. Schedule Updating: Revise Combined Contractor's Construction Schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.

c. Review present and future needs of each entity present, including the following:

1) Interface requirements.
2) Sequence of operations.
3) Status of submittals.
4) Deliveries.
5) Off-site fabrication.
6) Access.
7) Site utilization.
8) Temporary facilities and controls.
9) Work hours.
10) Hazards and risks.
11) Progress cleaning.
12) Quality and work standards.
13) Change Orders.
14) Status of correction of deficient items.
15) Field observations.
16) RFIs.
17) Status of proposal requests.
18) Pending changes.
19) Status of Change Orders.
20) Pending claims and disputes.
21) Documentation of information for payment requests.

3. Minutes: Contractor to record the meeting minutes.
4. Reporting: Contractor to distribute minutes and results of the meeting to each party present and to others affected by decisions or actions resulting from each meeting.
5. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

1.08 REQUESTS FOR INTERPRETATION (RFI)

A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.
1. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
1. Project name.
2. Date.
3. Name of Contractor.
5. RFI number, numbered sequentially.
6. Specification Section number and title and related paragraphs, as appropriate.
7. Drawing number and detail references, as appropriate.
8. Field dimensions and conditions, as appropriate.
9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
10. Contractor's signature.
11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
   a. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.

C. Software-Generated RFIs: Software-generated form with substantially the same content as indicated above.
1. Attachments shall be electronic files in Adobe Acrobat PDF format.
2. Identify each page of attachments with the RFI number and sequential page number.

D. Architect's Action: Architect will review each RFI, determine action required, and return it. Allow fourteen working days for Architect's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day.
1. The following RFIs will be returned without action:
   a. Requests for approval of submittals.
   b. Requests for approval of substitutions.
   c. Requests for coordination information already indicated in the Contract Documents.
   d. Requests for adjustments in the Contract Time or the Contract Sum.
   e. Requests for interpretation of Architect's actions on submittals.
f. Incomplete RFIs or RFIs with numerous errors.
2. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 01 Section "Contract Modification Procedures."
   a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 5 days of receipt of the RFI response.

E. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within five days if Contractor disagrees with response.

F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit software log weekly prior to coordination meeting, with not less than the following:
   1. Project name.
   2. Name and address of Contractor.
   3. Name and address of Architect.
   4. RFI number including RFIs that were dropped and not submitted.
   5. RFI description.
   6. Date the RFI was submitted.
   7. Date Architect's response was received.
   8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

   END OF SECTION
PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
   1. Preliminary Construction Schedule.
   2. Contractor’s Construction Schedule.
   4. Daily construction reports.
   5. Material location reports.
   6. Field condition reports.
   7. Special reports.

B. Related Sections include the following:
   1. Division 01 Section “Application for Payment” for submitting the Schedule of Values.
   2. Division 01 Section “Project Management and Coordination” for submitting and distributing meeting and conference minutes.
   3. Division 01 Section “Submittal Procedures” for submitting schedules and reports.
   4. Division 01 Section “Quality Requirements” for submitting a schedule of tests and inspections.

1.03 DEFINITIONS

A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
   1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
   2. Predecessor Activity: An activity that precedes another activity in the network.
   3. Successor Activity: An activity that follows another activity in the network.

B. Cost Loading: The allocation of the Schedule of Values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by Architect.

C. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.

D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.

E. Event: The starting or ending point of an activity.

F. Float: The measure of leeway in starting and completing an activity.
   1. Float time belongs to the Owner is not for the exclusive use or benefit of the Contractor.
   2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
   3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

G. Fragment: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.

H. Major Area: A story of construction, a separate building, or a similar significant construction element.

I. Milestone: A key or critical point in time for reference or measurement.
J. Network Diagram: A graphic diagram of a network schedule, showing activities and activity relationships.

K. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.04 SUBMITTALS

A. Submittals Schedule: Submit one electronic copy in PDF format. Arrange the following information in a tabular format:
   1. Scheduled date for first submittal.
   2. Specification Section number and title.
   3. Submittal category (action or informational).
   4. Name of subcontractor.
   5. Description of the Work covered.
   6. Scheduled date for Architect's final release or approval.

B. Preliminary Construction Schedule: Submit one electronic copy in PDF format.
   1. Approval of cost-loaded preliminary construction schedule will not constitute approval of Schedule of Values for cost-loaded activities.

C. Contractor's Construction Schedule: Submit one electronic copy in PDF format of initial schedule, large enough to show entire schedule for entire construction period.
   1. Submit an electronic copy of schedule, using software indicated, on CD-R, and labeled to comply with requirements for submittals. Include type of schedule (Initial or Updated) and date on label.

D. Daily Construction Reports: Submit electronic copies in PDF format prior to weekly coordination meeting.

E. Material Location Reports: Submit two copies monthly to coincide with Applications for Payment.

F. Field Condition Reports: Submit two copies at time of discovery of differing conditions.

G. Special Reports: Submit two copies at time of unusual event.

1.05 COORDINATION

A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.

B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
   1. Secure time commitments for performing critical elements of the Work from parties involved.
   2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 PRODUCTS

2.01 SUBMITTALS SCHEDULE

A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
   1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
   2. Initial Submittal: Submit concurrently with preliminary bar-chart schedule or network diagram. Include submittals required during the first 60 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
      a. Show submittals on the Preliminary Construction Schedule, instead of tabulating them separately.
3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.02 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling."

B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial Completion.
   1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

C. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
   1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
   2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.

D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
   1. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
   2. Work Restrictions: Show the effect of the following items on the schedule:
      a. Coordination with existing construction.
      b. Limitations of continued occupancies.
      c. Uninterruptible services.
      d. Partial occupancy before Substantial Completion.
      e. Use of premises restrictions.
      f. Seasonal variations.
      g. Environmental control.
   3. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
      a. Subcontract awards.
      b. Submittals.
      c. Purchases.
      d. Fabrication.
      e. Sample testing.
      f. Deliveries.
      g. Installation.
      h. Tests and inspections.
      i. Project closeout.
   4. Area Separations: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
      a. Roof Tare-off
      b. Insulation and membrane installation
c. Substantial Completion.

E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion, and the following interim milestones:
   1. Completion of mechanical installation.

2.03 PRELIMINARY CONSTRUCTION SCHEDULE
A. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type construction schedule within seven days of date established for the Notice to Proceed.
B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 60 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

2.04 CONTRACTOR’S CONSTRUCTION SCHEDULE (GANTT CHART)
A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Construction Schedule within 30 days of date established for the Notice to Proceed. Base schedule on the Preliminary Construction Schedule and whatever updating and feedback was received since the start of Project.
B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

2.05 REPORTS
A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
   1. List of subcontractors at Project site.
   2. List of separate contractors at Project site.
   3. Approximate count of personnel at Project site.
   4. Equipment at Project site.
   5. Material deliveries.
   6. High and low temperatures and general weather conditions.
   7. Accidents.
   8. Meetings and significant decisions.
   9. Unusual events (refer to special reports).
   10. Stoppages, delays, shortages, and losses.
   11. Emergency procedures.
   12. Orders and requests of authorities having jurisdiction.
   13. Change Orders received and implemented.
   14. Construction Change Directives received and implemented.
   15. Services connected and disconnected.
B. Material Location Reports: At monthly intervals to coincide with Applications for Payment, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a request for interpretation. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.06 SPECIAL REPORTS
A. General: Submit special reports directly to Owner within one day(s) of an occurrence. Distribute copies of report to parties affected by the occurrence.
B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 EXECUTION

3.01 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
   1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
   2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
   3. As the Work progresses, indicate Actual Completion percentage for each activity.

B. Distribution: Distribute copies of approved schedule to Architect Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
   1. Post copies in Project meeting rooms and temporary field offices.
   2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION
SECTION 01 4000 - QUALITY REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. References and standards.
   B. Testing and inspection agencies and services.
   C. Control of installation.
   D. Mock-ups.
   E. Tolerances.
   F. Defect Assessment.

1.02 RELATED REQUIREMENTS
   A. Section 01 6000 - Product Requirements: Requirements for material and product quality.

1.03 REFERENCES AND STANDARDS
   A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
   B. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
   D. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.04 TESTING AND INSPECTION AGENCIES AND SERVICES
   A. Contractor shall be responsible to contact Authority Having Jurisdiction (AHJ) for required inspections and any documentation of testing the AHJ requires. Any documentation of such inspections and testing, shall be copied to the Architect.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 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. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
   D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
   E. Have work performed by persons qualified to produce required and specified quality.
   F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
   G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 MOCK-UPS
   A. Before installing portions of the Work where mock-ups are required, construct mock-ups in location and size indicated for each form of construction and finish required to comply with the
following requirements, using materials indicated for the completed Work. The purpose of 
mock-up is to demonstrate the proposed range of aesthetic effects and workmanship.

B. Tests shall be performed under provisions identified in this section and identified in the 
respective product specification sections.

C. Assemble and erect specified items with specified attachment and anchorage devices, 
flashings, seals, and finishes.

D. Where mock-up has been accepted by Architect and is specified in product specification 
sections to be removed, protect mock-up throughout construction, remove mock-up and clear 
area when directed to do so by Architect.

3.03 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. Should manufacturers' tolerances conflict with Contract 
Documents, request clarification from Architect before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

3.04 TESTING AND INSPECTION

A. Testing Agency Duties:
   1. Provide qualified personnel at site. Cooperate with Architect and Contractor in 
      performance of services.
   2. Perform specified sampling and testing of products in accordance with specified 
      standards.
   3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
   4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of 
      Work or products.
   5. Perform additional tests and inspections required by Architect.
   6. Submit reports of all tests/inspections specified.

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

C. Contractor Responsibilities:
   1. Deliver to agency at designated location, adequate samples of materials proposed to be 
      used that require testing, along with proposed mix designs.
   2. Cooperate with laboratory personnel, and provide access to the Work and to 
      manufacturers' facilities.
   3. Provide incidental labor and facilities:
      a. To provide access to Work to be tested/inspected.
      b. To obtain and handle samples at the site or at source of Products to be 
         tested/inspected.
      c. To facilitate tests/inspections.
      d. To provide storage and curing of test samples.
   4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring 
      testing/inspection services.
   5. Employ services of an independent qualified testing laboratory and pay for additional 
      samples, tests, and inspections required by Contractor beyond specified requirements.
   6. Arrange with Owner's agency and pay for additional samples, tests, and inspections 
      required by Contractor beyond specified requirements.

D. Re-testing required because of non-compliance with specified requirements shall be performed 
by the same agency on instructions by Architect.
E. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

3.05 DEFECT ASSESSMENT

A. Replace Work or portions of the Work not complying with specified requirements.

B. If, in the opinion of Architect, it is not practical to remove and replace the work, Architect will direct an appropriate remedy or adjust payment.

END OF SECTION
PART 1 GENERAL

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

1.02 DEFINITIONS
   A. General: Basic Contract definitions are included in the Conditions of the Contract.
   B. "Approved": When used to convey Architect's action on Contractor's submittals, applications,
      and requests, "approved" is limited to Architect's duties and responsibilities as stated in the
      Conditions of the Contract.
   C. "Directed": A command or instruction by Architect. Other terms including "requested,"
      "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
   D. "Indicated": Requirements expressed by graphic representations or in written form on
      Drawings, in Specifications, and in other Contract Documents. Other terms including "shown,"
      "noted," "scheduled," and "specified" have the same meaning as "indicated."
   E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having
      jurisdiction, and rules, conventions, and agreements within the construction industry that control
      performance of the Work.
   F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly,
      installation, and similar operations.
   G. "Install": Operations at Project site including unloading, temporarily storing, unpacking,
      assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing,
      protecting, cleaning, and similar operations.
   H. "Provide": Furnish and install, complete and ready for the intended use.
   I. "Project Site": Space available for performing construction activities. The extent of Project site
      is shown on Drawings and may or may not be identical with the description of the land on which
      Project is to be built.

1.03 INDUSTRY STANDARDS
   A. Applicability of Standards: Unless the Contract Documents include more stringent
      requirements, applicable construction industry standards have the same force and effect as if
      bound or copied directly into the Contract Documents to the extent referenced. Such standards
      are made a part of the Contract Documents by reference.
   B. Publication Dates: Comply with standards in effect as of date of the Contract Documents
      unless otherwise indicated.
   C. Copies of Standards: Each entity engaged in construction on Project should be familiar with
      industry standards applicable to its construction activity. Copies of applicable standards are not
      bound with the Contract Documents.
   D. Where copies of standards are needed to perform a required construction activity, obtain copies
      directly from publication source.

1.04 ABBREVIATIONS AND ACRONYMS
      Agencies, Standards and Regulations: Where abbreviations and acronyms are used in
      Specifications or other Contract Documents, they shall mean the recognized name of the
      entities indicated in a publication from Thomson Gale's "Encyclopedia of Associations" or as
      provided by a pertaining publication from Thomas Gale Publishing. www.gale.com
      <http://www.gale.com/>
SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Temporary utilities.
B. Temporary telecommunications services.
C. Temporary sanitary facilities.
D. Temporary Controls: Barriers, enclosures, and fencing.
E. Security requirements.
F. Waste removal facilities and services.

1.02 TEMPORARY UTILITIES

A. Owner will provide the following:
   1. Electrical power and metering, consisting of connection to existing facilities.
   2. Water supply, consisting of connection to existing facilities. Owner will direct Contractor on
      where water supply may be obtained.

1.03 TELECOMMUNICATIONS SERVICES

A. Provide, maintain, and pay for telecommunications services to field office at time of project
   mobilization.
   1. Cellular telephones may be used by Contractor's and Subcontractor's personnel in lieu of
      temporary telephone service.

1.04 TEMPORARY SANITARY FACILITIES

A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
B. Maintain daily in clean and sanitary condition.

1.05 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas
   that could be hazardous to workers or the public and to protect existing facilities and adjacent
   properties from damage from construction operations and demolition.
B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.06 FENCING

A. Construction: Contractor's option, or as required by AHJ.

1.07 INTERIOR ENCLOSURES

A. Provide temporary partitions and ceilings as indicated to separate work areas from
   Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas,
   and to prevent damage to existing materials and equipment.
B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and
   sealed edges at intersections with existing surfaces:

1.08 SECURITY

A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from
   unauthorized entry, vandalism, or theft.

1.09 WASTE REMOVAL

A. Provide waste removal facilities and services as required to maintain the site in clean and
   orderly condition.
B. Provide containers with lids. Remove trash from site periodically.
C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable
   non-combustible containers; locate containers holding flammable material outside the structure
   unless otherwise approved by the authorities having jurisdiction.
1.10 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS
   A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
   B. Clean and repair damage caused by installation or use of temporary work.
   C. Restore existing facilities used during construction to original condition.
   D. Restore new permanent facilities used during construction to specified condition.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. General product requirements.
   B. Re-use of existing products.
   C. Transportation, handling, storage and protection.
   D. Product option requirements.
   E. Substitution limitations.
   F. Maintenance materials, including extra materials, spare parts, tools, and software.

1.02 RELATED REQUIREMENTS
   A. Section 01 1000 - Summary: Lists of products to be removed from existing building.
   B. Section 01 2500 - Substitution Procedures: Substitutions made during procurement and/or construction phases.
   C. Section 01 4000 - Quality Requirements: Product quality monitoring.
   D. Section 01 7419 - Construction Waste Management and Disposal: Waste disposal requirements potentially affecting product selection, packaging and substitutions.

1.03 SUBMITTALS
   A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
   B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
   C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
      1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

2.01 EXISTING PRODUCTS
   A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents.
   B. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, shall become the property of the Contractor; remove from site.
   C. Specific Products to be Reused: The reuse of certain materials and equipment already existing on the project site is if required, are addressed in the Construction Documents.

2.02 NEW PRODUCTS
   A. Provide new products unless specifically required or permitted by the Contract Documents.

2.03 PRODUCT OPTIONS
   A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
   B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
   C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.
PART 3  EXECUTION

3.01  SUBSTITUTION LIMITATIONS
   A. See Section 01 2500 - Substitution Procedures.

3.02  TRANSPORTATION AND HANDLING
   A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
   B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
   C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
   D. Transport and handle products in accordance with manufacturer's instructions.
   E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
   F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
   G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.

3.03  STORAGE AND PROTECTION
   A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 01 7419.
   B. Store and protect products in accordance with manufacturers' instructions.
   C. Store with seals and labels intact and legible.
   D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
   E. For exterior storage of fabricated products, place on sloped supports above ground.
   F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
   G. Comply with manufacturer's warranty conditions, if any.
   H. Do not store products directly on the ground.
   I. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
   J. Prevent contact with material that may cause corrosion, discoloration, or staining.
   K. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
   L. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION
SECTION 01 7000 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Examination, preparation, and general installation procedures.
B. Requirements for alterations work, including selective demolition.
C. Pre-installation meetings.
D. Cutting and patching.
E. Surveying for laying out the work.
F. Cleaning and protection.
G. Starting of systems and equipment.
H. Demonstration and instruction of Owner personnel.
I. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
J. General requirements for maintenance service.

1.02 RELATED REQUIREMENTS
A. Section 01 1000 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
B. Section 01 3000 - Administrative Requirements: Submittals procedures, Electronic document submittal service.
C. Section 01 4000 - Quality Requirements: Testing and inspection procedures.
D. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties, and bonds.
E. Section 02 4100 - Demolition: Demolition of whole structures and parts thereof; site utility demolition.

1.03 SUBMITTALS
A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
   1. Structural integrity of any element of Project.
   2. Integrity of weather exposed or moisture resistant element.
   3. Efficiency, maintenance, or safety of any operational element.
   5. Work of Owner or separate Contractor.
C. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.04 COORDINATION
A. See Section 01 1000 for occupancy-related requirements.
B. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
C. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS
A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
B. Examine and verify specific conditions described in individual specification sections.
C. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
D. Verify that utility services are available, of the correct characteristics, and in the correct locations.
E. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 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 any new material or substance in contact or bond.

3.03 PREINSTALLATION MEETINGS

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

3.04 GENERAL INSTALLATION REQUIREMENTS

A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.

3.05 ALTERATIONS

A. Drawings showing existing construction and utilities are based on investigative information.
   1. Verify that construction and utility arrangements are as indicated.
   2. Report discrepancies to Architect before disturbing existing installation.
   3. Beginning of alterations work constitutes acceptance of existing conditions.
B. Remove existing work as indicated and as required to accomplish new work.
   1. Remove items indicated on drawings.
2. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.

3. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.

C. Protect existing work to remain.
   1. Prevent movement of structure; provide shoring and bracing if necessary.
   2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
   3. Repair adjacent construction and finishes damaged during removal work.

D. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
   1. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.

E. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.

F. Clean existing systems and equipment.

G. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.

H. Comply with all other applicable requirements of this section.

3.06 CUTTING AND PATCHING

A. Whenever possible, execute the work by methods that avoid cutting or patching.

B. See Alterations article above for additional requirements.

C. Perform whatever cutting and patching is necessary to:
   1. Complete the work.
   2. Fit products together to integrate with other work.
   3. Provide openings for penetration of mechanical, electrical, and other services.
   4. Match work that has been cut to adjacent work.
   5. Repair areas adjacent to cuts to required condition.
   6. Repair new work damaged by subsequent work.
   7. Remove samples of installed work for testing when requested.
   8. Remove and replace defective and non-complying work.

D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

E. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

F. Restore work with new products in accordance with requirements of Contract Documents.

G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

H. Patching:
   1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
   2. Match color, texture, and appearance.
   3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.07 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.08 PROTECTION OF INSTALLED WORK
A. Protect installed work from damage by construction operations.
B. Provide special protection where specified in individual specification sections.
C. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
D. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
E. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.09 FINAL CLEANING
A. Execute final cleaning prior to final project assessment.
B. Use cleaning materials that are nonhazardous.
C. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
D. Clean site; sweep paved areas, rake clean landscaped surfaces.
E. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.10 CLOSEOUT PROCEDURES
A. Make submittals that are required by governing or other authorities.
B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
D. Submit written notice containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
E. Owner will occupy all of the building as specified in Section 01 1000.
F. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
G. Inspections: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect that must be completed or corrected before certificate will be issued.
1. Reinspections: Request for Reinspections when the Work identified in previous inspections as required to make extensive Reinspections. The Contractor shall be prudent in completing corrective items, and limit Reinspections periods. The Contractor could be subject to additional fees to the Architect or the Architect's consultants for extensive Reinspections requirements.
2. Results of completed inspection will form the basis of requirements for Final Completion.
H. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.

I. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.

J. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

END OF SECTION
SECTION 01 7419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 GENERAL

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

1.02 SUMMARY
A. This Section includes administrative and procedural requirements for the following:
   1. Recycling nonhazardous construction waste, is at the discretion of the Contractor, but encouraged by the Owner.
   2. Disposing of nonhazardous construction waste.
B. Related Sections include the following:
   1. Division 01 Section “Temporary Facilities and Controls” for environmental-protection measures during construction.

1.03 DEFINITIONS
A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
B. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
C. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

1.04 PERFORMANCE GOALS
A. Recycle Goals: Laramie County's goal is to encourage recycling as much nonhazardous construction waste as possible. However, recycling of nonhazardous construction waste is not mandatory, only encouraged by the Owner, when beneficial for the Contractor.
   1. Construction Waste:
      a. Site-clearing waste.
      b. Masonry and CMU.
      c. Lumber.
      d. Wood sheet materials.
      e. Metals.
      f. Insulation.
      g. Piping.
      h. Electrical conduit.
      i. Packaging: Regardless of salvage/recycle goal indicated above, salvage or recycle 100 percent of the following uncontaminated packaging materials.
         1) Paper.
         2) Cardboard.
         3) Boxes.
         4) Plastic sheet and film.
         5) Polystyrene packaging.
         7) Plastic pails.

1.05 QUALITY ASSURANCE
A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
PART 3 EXECUTION

2.01 PLAN IMPLEMENTATION

A. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
   1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
   2. Comply with Division 01 Section “Temporary Facilities and Controls” for controlling dust and dirt, environmental protection, and noise control.

2.02 RECYCLING CONSTRUCTION WASTE, GENERAL

A. General: Owner encourages the recycle of paper and beverage containers used by on-site workers.

B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.

C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.
   1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
      a. Inspect containers and bins for contamination and remove contaminated materials if found.
   2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
   3. Stockpile materials away from construction area.
   4. Store components off the ground and protect from the weather.

2.03 RECYCLING CONSTRUCTION WASTE

A. Packaging:
   1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
   3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
   4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

2.04 DISPOSAL OF WASTE

A. General: Except for items or materials to be recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
   1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
   2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn waste materials.

C. Disposal: Transport waste materials off Owner’s property and legally dispose of them.

END OF SECTION
SECTION 01 7800 - CLOSEOUT SUBMITTALS

PART 1 GENERAL
1.01 SECTION INCLUDES
   A. Project Record Documents.
   B. Operation and Maintenance Data.
   C. Warranties and bonds.

1.02 RELATED REQUIREMENTS
   A. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
   B. Section 01 7000 - Execution and Closeout Requirements: Contract closeout procedures.
   C. Individual Product Sections: Specific requirements for operation and maintenance data.
   D. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS
   A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.
   B. Operation and Maintenance Data:
      1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
      2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
      3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
      4. Submit two sets of revised final documents in final form within 10 days after final inspection.
   C. Warranties and Bonds:
      1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
      2. Make other submittals within 10 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 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION
3.01 PROJECT RECORD DOCUMENTS
   A. Maintain on site one set of the following record documents; record actual revisions to the Work:
      1. Drawings.
      2. Specifications.
      3. Addenda.
      4. Change Orders and other modifications to the Contract.
      5. Reviewed shop drawings, product data, and samples.
      6. Manufacturer's instruction for assembly, installation, and adjusting.
   B. Ensure entries 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.
   E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
1. Manufacturer's name and product model and number.
2. Product substitutions or alternates utilized.
3. Changes made by Addenda and modifications.

F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
   1. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
   2. Field changes of dimension and detail.
   3. Details not on original Contract drawings.

3.02 OPERATION AND MAINTENANCE DATA

A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement 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: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
H. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
J. Arrangement of Contents: Organize each volume in parts as follows:
   1. Project Directory.
   2. Table of Contents, of all volumes, and of this volume.
   3. Operation and Maintenance Data: Arranged by system, then by product category.
      a. Source data.
      b. Operation and maintenance data.
      c. Field quality control data.
      d. Photocopies of warranties and bonds.
3.04 WARRANTIES AND BONDS

A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.

B. Verify that documents are in proper form, contain full information, and are notarized.

C. Co-execute submittals when required.

D. Retain warranties and bonds until time specified for submittal.

E. Include originals of each in operation and maintenance manuals, indexed separately on Table of Contents.

END OF SECTION
Certificate of Substantial Completion

PROJECT: (name and address)

CONTRACT INFORMATION:
Contract For: General Construction
Date:

CERTIFICATE INFORMATION:
Certificate Number:
Date:

OWNER: (name and address)

ARCHITECT: (name and address)

CONTRACTOR: (name and address)

The Work identified below has been reviewed and found, to the Architect’s best knowledge, information, and belief, to be substantially complete. Substantial Completion is the stage in the progress of the Work when the Work or designated portion is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. The date of Substantial Completion of the Project or portion designated below is the date established by this Certificate.

(Identify the Work, or portion thereof, that is substantially complete.)

ARCHITECT (Firm Name) SIGNATURE PRINTED NAME AND TITLE DATE OF SUBSTANTIAL COMPLETION

WARRANTIES

The date of Substantial Completion of the Project or portion designated above is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below:

(Identify warranties that do not commence on the date of Substantial Completion, if any, and indicate their date of commencement.)

WORK TO BE COMPLETED OR CORRECTED

A list of items to be completed or corrected is attached hereto, or transmitted as agreed upon by the parties, and identified as follows:

(Identify the list of Work to be completed or corrected.)

The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Unless otherwise agreed to in writing, the date of commencement of warranties for items on the attached list will be the date of issuance of the final Certificate of Payment or the date of final payment, whichever occurs first. The Contractor will complete or correct the Work on the list of items attached hereto within (    ) days from the above date of Substantial Completion.

Cost estimate of Work to be completed or corrected: $

The responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work, insurance, and other items identified below shall be as follows:

(Note: Owner’s and Contractor’s legal and insurance counsel should review insurance requirements and coverage.)

The Owner and Contractor hereby accept the responsibilities assigned to them in this Certificate of Substantial Completion:

CONTRACTOR (Firm Name) SIGNATURE PRINTED NAME AND TITLE DATE

OWNER (Firm Name) SIGNATURE PRINTED NAME AND TITLE DATE
Contractor’s Affidavit of Payment of Debts and Claims

STATE OF: ____________________________
COUNTY OF: ____________________________

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished; for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner’s property might in any way be held responsible or encumbered.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA Document G707, Consent of Surety, may be used for this purpose.

Indicate Attachment: □ Yes  ☒ No

The following supporting documents should be attached hereto if required by the Owner:

1. Contractor’s Release or Waiver of Liens, conditional upon receipt of final payment.

2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.


BY: ____________________________
(Signature of authorized representative)

(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:

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User Notes:
Contractor’s Affidavit of Release of Liens

PROJECT: (Name and address)  ARCHITECT’S PROJECT NUMBER:  OWNER:

ARCHITECT:

CONTRACT FOR: General
Construction

CONTRACTOR:

SURETY:

OTHER:

TO OWNER: (Name and address)  CONTRACT DATED:

STATE OF:
COUNTY OF:

The undersigned hereby certifies that to the best of the undersigned’s knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:
1. Contractor’s Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

CONTRACTOR: (Name and address)

BY:  

(Signature of authorized representative)

(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:
Consent Of Surety to Final Payment

PROJECT: (Name and address)  ARCHITECT'S PROJECT NUMBER:  

ARCHITECT:  

CONTRACT FOR: General Construction  CONTRACTOR:  

TO OWNER: (Name and address)  CONTRACT DATED:  

OWNER:  

SURETY:  

OTHER:  

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the 
(Surety)

on bond of

(Contractor)

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the 
Surety of any of its obligations to

(Owner)

as set forth in said Surety's bond.

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:

(Surety)

(Signature of authorized representative)

Attest:

(Seal):

(Printed name and title)
SECTION 01 7800.06 - NO ASBESTOS

AFFIDAVIT CERTIFYING
THAT NO ASBESTOS
WAS USED OR INSTALLED

OWNER:

ARCHITECT: TOBIN & ASSOCIATES, P.C.

TO:

PROJECT NUMBER:

CONTRACT AMOUNT:

PROJECT:

CONTRACT DATE:

STATE OF

COUNTY OF

The undersigned, hereby certifies that no asbestos or asbestos containing materials were used
or installed on the above-referenced project.

CONTRACTOR:

________________________________

________________________________

________________________________

BY:_____________________________

SUBSCRIBED AND SWORN TO ME BEFORE ME THIS _____ DAY OF ___________________, 201_

_______________________________________________________________
NOTARY PUBLIC

END OF SECTION
SECTION 01 7800.05 - NO LEAD

AFFIDAVIT CERTIFYING
THAT NO LEAD
WAS USED OR INSTALLED
P.C.

OWNER:

ARCHITECT: TOBIN & ASSOCIATES,
P.C.

TO:

PROJECT NUMBER:

CONTRACT AMOUNT:

PROJECT:

CONTRACT DATE:

STATE OF:

COUNTY OF:

THE UNDERSIGNED, HEREBY CERTIFIES THAT NO LEAD OR LEAD CONTAINING MATERIALS WERE USED OR INSTALLED ON THE ABOVE-REFERENCED PROJECT. EXCEPT WHERE SPECIFICALLY SHOWN OR SPECIFIED.

CONTRACTOR:

________________________________

________________________________

________________________________

BY: _____________________________

SUBSCRIBED AND SWORN TO ME BEFORE ME THIS _____ DAY OF ________________, 201_

_______________________________________________________________

NOTARY PUBLIC

_______________________________________________________________

MY COMMISSION EXPIRES

END OF SECTION
SECTION 02 4100 - DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Selective demolition of built site elements.
B. Selective demolition of building elements for alteration purposes.

1.02 RELATED REQUIREMENTS
A. Section 01 1000 - Summary: Limitations on Contractor's use of site and premises.
B. Section 01 5000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
C. Section 01 7000 - Execution and Closeout Requirements: Project conditions; protection of benchmarks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.
D. Section 01 7419 - Construction Waste Management and Disposal: Limitations on disposal of removed materials; requirements for recycling.

1.03 SUBMITTALS
A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

PART 3 EXECUTION

2.01 SCOPE
A. Break up concrete slabs on grade within site boundaries to permit natural moisture drainage; leave pieces not larger than 1 square yard.
B. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as required so that required rough grade elevations do not subside within one year after completion.

2.02 GENERAL PROCEDURES AND PROJECT CONDITIONS
A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
   1. Obtain required permits.
   2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
   3. Provide, erect, and maintain temporary barriers and security devices.
   4. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
   5. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
   6. Do not close or obstruct roadways or sidewalks without permit.
   7. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
B. Do not begin removal until receipt of notification to proceed from Owner.
C. Protect existing structures and other elements that are not to be removed.
   1. Provide bracing and shoring.
   2. Prevent movement or settlement of adjacent structures.
   3. Stop work immediately if adjacent structures appear to be in danger.
D. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.

E. Partial Removal of Paving and Curbs: Neatly saw cut at right angle to surface.

2.03 EXISTING UTILITIES
A. Protect existing utilities to remain from damage.
B. Do not disrupt public utilities without permit from authority having jurisdiction.
C. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
D. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
E. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.

2.04 SELECTIVE DEMOLITION FOR ALTERATIONS
A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
   1. Verify that construction and utility arrangements are as indicated.
   2. Report discrepancies to Architect before disturbing existing installation.
   3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
B. Separate areas in which demolition is being conducted from other areas that are still occupied.
   1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000.
C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
D. Remove existing work as indicated and as required to accomplish new work.
   1. Remove items indicated on drawings.
E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove existing systems and equipment as indicated.
   1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
   2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
   3. Verify that abandoned services serve only abandoned facilities before removal.
   4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
F. Protect existing work to remain.
   1. Prevent movement of structure; provide shoring and bracing if necessary.
   2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
   3. Repair adjacent construction and finishes damaged during removal work.
   4. Patch as specified for patching new work.

2.05 DEBRIS AND WASTE REMOVAL
A. Remove debris, junk, and trash from site.
B. Leave site in clean condition, ready for subsequent work.
C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION
SECTION 03 0516 - UNDERSLAB VAPOR BARRIER

PART 1 GENERAL

1.01 REFERENCE STANDARDS

A. ASTM E1643 - Standard Practice for Selection, Design, Installation and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs; 2011 (Reapproved 2017).

B. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs; 2017.

PART 2 PRODUCTS

2.01 MATERIALS

A. Underslab Vapor Barrier:
   1. Water Vapor Permeance: Not more than 0.010 perms, maximum.
   2. Thickness: 15 mils.
   3. Basis of Design:

B. Accessory Products: Vapor barrier manufacturer's recommended tape, adhesive, mastic, etc., for sealing seams and penetrations in vapor barrier.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install vapor barrier in accordance with manufacturer's instructions and ASTM E1643.

B. Install vapor barrier under interior slabs on grade; lap sheet over footings and seal to foundation walls.

C. Lap joints minimum 6 inches.

D. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions.

E. No penetration of vapor barrier is allowed except for reinforcing steel and permanent utilities.

F. Repair damaged vapor retarder before covering with other materials.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES

A. Concrete formwork.
B. Floors and slabs on grade.
C. Concrete reinforcement.
D. Joint devices associated with concrete work.
E. Miscellaneous concrete elements, including floor patch for plumbing drain installation.
F. Concrete curing.

1.02 RELATED REQUIREMENTS

A. Section 07 9200 - Joint Sealants: Products and installation for sealants and joint fillers for saw cut joints and isolation joints in slabs.

1.03 REFERENCE STANDARDS

B. ACI 301 - Specifications for Structural Concrete; 2016.
C. ACI 302.1R - Guide to Concrete Floor and Slab Construction; 2015.
E. ACI 308R - Guide to External Curing of Concrete; 2016.
F. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2018).
O. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2015.

1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Mix Design: Submit proposed concrete mix design.
1. Indicate proposed mix design complies with requirements of ACI 301, Section 4 - Concrete Mixtures.
2. Indicate proposed mix design complies with requirements of ACI 318, Chapter 5 - Concrete Quality, Mixing and Placing.
3. Indicate proposed mix design complies with fiber reinforcing manufacturer's written recommendations.

C. Test Reports: Submit report for each test or series of tests specified.

1.05 QUALITY ASSURANCE

A. Perform work of this section in accordance with ACI 301 and ACI 318.

PART 2 PRODUCTS

2.01 FORMWORK

A. Form Materials: Contractor’s choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
   1. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.

2.02 REINFORCEMENT MATERIALS

A. Reinforcing Steel: ASTM A615/A615M, Grade 40 (40,000 psi).
   1. Type: Deformed billet-steel bars.
   2. Finish: Unfinished, unless otherwise indicated.

B. Reinforcement Accessories:
   1. Epoxy Embedment: Hilti HY150 or approved equal.

2.03 CONCRETE MATERIALS

A. Cement: ASTM C150/C150M, Type I - Normal Portland type.
B. Fine and Coarse Aggregates: ASTM C33/C33M.
C. Fly Ash: ASTM C618, Class C or F.
D. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.
E. Blended Fiber Reinforcement: ASTM C1116/C1116M, engineered blend of two or more sizes of reinforcing fibers.

2.04 ADMIXTURES

A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
B. Air Entrainment Admixture: ASTM C260/C260M.
C. Water Reducing Admixture: ASTM C494/C494M Type A.
D. Alkali-Silica Reactivity: Evaluate aggregates for potential alkali-silica reactivity. Control reactivity per Portland Cement Association Guide Specification for Concrete Subject to Alkali-Silica Reaction.

2.05 ACCESSORY MATERIALS

   1. Products:
      e. Substitutions: See Section 01 6000 - Product Requirements.

2.06 BONDING AND JOINTING PRODUCTS

A. Latex Bonding Agent: Non-redispersable acrylic latex, complying with ASTM C1059/C1059M, Type II.
2.07 CONCRETE MIX DESIGN
   A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
   B. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.
   C. Fiber Reinforcement: Add to mix at rate of 1.5 pounds per cubic yard, or as recommended by manufacturer for specific project conditions.
   D. Normal Weight Concrete:
      1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 4,000 pounds per square inch.
      2. Total Air Content: 4 percent, determined in accordance with ASTM C173/C173M.

PART 3 EXECUTION
3.01 EXAMINATION
   A. Verify lines, levels, and dimensions before proceeding with work of this section.

3.02 PREPARATION
   A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.
   B. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent in accordance to bonding agent manufacturer's instructions.
      1. Use latex bonding agent only for non-load-bearing applications.
   C. In locations where new concrete is dowled to existing work, drill holes in existing concrete, minimum 6 inches deep and clean holes of all concrete fines. Inject epoxy adhesive and insert steel rebar dowel. Let adhesive cure before pouring new slab patch.
   D. Interior Slabs on Grade: Install vapor retarder (when called for) under interior slabs on grade. Lap joints minimum 6 inches. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering.

3.03 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS
   A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
   B. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with concrete placement.

3.04 PLACING CONCRETE
   A. Place concrete in accordance with ACI 304R.
   B. Place concrete for floor slabs in accordance with ACI 302.1R.
   C. Ensure reinforcement and embedded parts will not be disturbed during concrete placement.
   D. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

3.05 SLAB JOINTING
   A. Locate joints as indicated on drawings.
   B. Anchor joint fillers and devices to prevent movement during concrete placement.

3.06 FLOOR FLATNESS AND LEVELNESS TOLERANCES
   A. Maximum Variation of Surface Flatness:
      1. Exposed Concrete Floors: 1/4 inch in 10 feet.
      2. Under Seamless Resilient Flooring: 1/4 inch in 10 feet.
B. Correct the slab surface if tolerances are less than specified.
C. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

3.07 CONCRETE FINISHING
A. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
   1. Surfaces to Receive Thin Floor Coverings: "Steel trowel" as described in ACI 302.1R; thin floor coverings include carpeting, resilient flooring, seamless flooring, resinous matrix terrazzo, thin set quarry tile, and thin set ceramic tile.
   2. Other Surfaces to Be Left Exposed: Trowel as described in ACI 302.1R, minimizing burnish marks and other appearance defects.
B. In areas with floor drains, maintain floor elevation at walls; pitch surfaces uniformly to drains at 1:100 nominal.

3.08 CURING AND PROTECTION
A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
   1. Normal concrete: Not less than seven days.

3.09 FIELD QUALITY CONTROL
A. An independent testing agency will perform field quality control tests, as specified in Section 01 4000 - Quality Requirements.
B. Provide free access to concrete operations at project site and cooperate with appointed firm.
C. Submit proposed mix design to testing firm for review prior to commencement of concrete operations.

3.10 DEFECTIVE CONCRETE
A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.
B. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.
C. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect for each individual area.

3.11 PROTECTION
A. Do not permit traffic over unprotected concrete floor surface until fully cured.

END OF SECTION
SECTION 05 5213 - PIPE AND TUBE RAILINGS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Free-standing railings at ramps.

1.02 RELATED REQUIREMENTS
   A. Section 03 3000 - Cast-in-Place Concrete: Placement of anchors in concrete.
   B. Section 09 9123 - Interior Painting: Paint finish.

1.03 REFERENCE STANDARDS
   C. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2013.

1.04 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Shop Drawings: Indicate profiles, sizes, connection attachments, anchorage, size and type of fasteners, and accessories.

1.05 QUALITY ASSURANCE
   A. Structural Designer Qualifications: Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located, or personnel under direct supervision of such an engineer.
   B. Fabricator Qualifications:
      1. A qualified steel fabricator that is certified by the American Institute for Steel Construction (AISC) under AISC 201.
      2. A qualified steel fabricator that is accredited by the International Accreditation Service (IAS) Fabricator Inspection Program for Structural Steel in accordance with IAS AC172.
      3. A company specializing in manufacturing products specified in this section, with not less than ten years of documented experience.

PART 2 PRODUCTS

2.01 RAILINGS - GENERAL REQUIREMENTS
   A. Design, fabricate, and test railing assemblies in accordance with the most stringent requirements of ASTM E985 and applicable local code.
   B. Allow for expansion and contraction of members and building movement without damage to connections or members.
   C. Dimensions: See drawings for configurations and heights.
   D. Provide anchors and other components as required to attach to structure, made of same materials as railing components unless otherwise indicated; where exposed fasteners are unavoidable provide flush countersunk fasteners.
   E. Provide slip-on non-weld mechanical fittings to join lengths, seal open ends, and conceal exposed mounting bolts and nuts, including but not limited to elbows, T-shapes, splice connectors, flanges, escutcheons, and wall brackets.

2.02 STEEL RAILING SYSTEM
   A. Steel Tube: ASTM A500/A500M, Grade B cold-formed structural tubing.
B. Welding Fittings: Factory- or shop-welded from matching pipe or tube; seams continuously welded; joints and seams ground smooth.
C. Exposed Fasteners: No exposed bolts or screws.

2.03 FABRICATION
A. Accurately form components to suit specific project conditions and for proper connection to building structure.
B. Fit and shop assemble components in largest practical sizes for delivery to site.
C. Fabricate components with joints tightly fitted and secured. Provide spigots and sleeves to accommodate site assembly and installation.
D. Welded Joints:
   1. Exterior Components: Continuously seal joined pieces by intermittent welds and plastic filler. Drill condensate drainage holes at bottom of members at locations that will not encourage water intrusion.
   2. Interior Components: Continuously seal joined pieces by intermittent welds and plastic filler.
   3. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that field conditions are acceptable and are ready to receive work.

3.02 PREPARATION
A. Clean and strip primed steel items to bare metal where site welding is required.
B. Apply one coat of bituminous paint to concealed aluminum surfaces that will be in contact with cementitious or dissimilar materials.

3.03 INSTALLATION
A. Install in accordance with manufacturer's instructions.
B. Install components plumb and level, accurately fitted, free from distortion or defects, with tight joints.
C. Install railings in compliance with ADA Standards for accessible design at applicable locations.
D. Anchor railings securely to structure.

3.04 TOLERANCES
A. Maximum Variation From Plumb: 1/4 inch per floor level, non-cumulative.
B. Maximum Offset From True Alignment: 1/4 inch.

END OF SECTION
SECTION 06 1000 - ROUGH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Concealed wood blocking, nailers, and supports.
B. Miscellaneous wood nailers, furring, and grounds.

1.02 REFERENCE STANDARDS

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS
A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
   1. If no species is specified, provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.
   2. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.
B. Lumber fabricated from old growth timber is not permitted.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS
A. Sizes: Nominal sizes as indicated on drawings, S4S.
B. Moisture Content: S-dry or MC19.
C. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
   1. Lumber: S4S, No. 2 or Standard Grade.
   2. Boards: Standard or No. 3.

2.03 ACCESSORIES
A. Fasteners and Anchors:

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL
A. Select material sizes to minimize waste.
B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.

3.02 FRAMING INSTALLATION
A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength.
B. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
C. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes.
3.03 BLOCKING, NAILERS, AND SUPPORTS
   A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.

   END OF SECTION
SECTION 06 2000 - FINISH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Finish wall paneling.
   B. Wood Handrails
   C. Hardware and attachment accessories.

1.02 RELATED REQUIREMENTS
   A. Section 06 1000 - Rough Carpentry: Support framing, grounds, concealed blocking, communications and electrical room mounting boards.
   B. Section 06 4100 - Plastic Laminate Faced Architectural Wood Casework: Shop fabricated custom cabinet work and countertops.
   C. Section 09 9123 - Interior Painting: Painting of finish carpentry items.

1.03 REFERENCE STANDARDS
   C. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014, with Errata (2016).

1.04 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements for submittal procedures.
   B. Product Data:
      1. Show material characteristics, physical and performance qualities, finishes and color selections.
   C. Certificate: Submit labels and certificates required by quality assurance and quality control programs.
   D. Samples: Submit two samples of wood paneling, 8-1/2 inches by 35-1/2 inches size, illustrating selected color and sheen.

1.05 QUALITY ASSURANCE
   A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of experience.
      1. Accredited participant in the specified certification program prior to the commencement of fabrication and throughout the duration of the project.
      2. Single Source Responsibility: Provide and install this work from single fabricator.
   B. Quality Certification:
      1. Comply with AWI (QCP) woodwork association quality certification service/program in accordance with requirements for work specified in this section: www.awiqcp.org/#sle.
      2. Provide designated labels on shop drawings as required by certification program.
      3. Provide designated labels on installed products as required by certification program.
      4. Submit certifications upon completion of installation that verifies this work is in compliance with specified requirements.

1.06 DELIVERY, STORAGE, AND HANDLING
   A. Protect from moisture damage.
   B. Handle materials and products to prevent damage to edges, ends, or surfaces.
PART 2 PRODUCTS

2.01 FINISH CARPENTRY ITEMS

A. Quality Standard: Custom Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.

B. Surface Burning Characteristics: Provide materials having fire and smoke properties as required by applicable code.

C. Interior Woodwork Items:
   1. Handrails: Oak, profile as shown on drawings. Prepare for stained and sealed finish.
   2. Wall Paneling (Basis of Design): as manufactured by Coeur d' Alene Wood (www.CDAwood.com)
      a. Wood Species: Alaskan Yellow Cedar
      b. Size: 1" x 6" x 3/4" with 5 1/2" exposed face width
      c. Minimum Length: Width of space
      d. Sealer: Factory Applied
      e. Edge: Square
      f. Color: As selected by architect from manufacturer's full range
      g. Finish: vertical Band Sawn

2.02 SOLID SURFACE (ALTERNATE NO. 2)

A. Flat Sheet Thickness: 3/4 inch, minimum.

B. Solid Surfacing Sheet and Plastic Resin Castings: Complying with ISFA-2 and NEMA LD 3; acrylic resin, mineral filler, and pigments; homogenous, non-porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
   1. Surface Burning Characteristics: Flame spread 25, maximum; smoke developed 450, maximum; when tested in accordance with ASTM E84.
   3. Color and Pattern: As selected by Architect from manufacturer's standard line.
   4. Manufacturers:
      d. Substitutions: See Section 01 6000 - Product Requirements.

2.03 FASTENINGS

A. Adhesive for Purposes Other Than Laminate Installation: Suitable for the purpose; not containing formaldehyde or other volatile organic compounds, as recommended by product manufacturer being used with.

B. Fasteners: Of size and type to suit application; recommended by product manufacturer being used with, finish in concealed locations and also for finish in exposed locations.

C. Concealed Joint Fasteners: As recommended by product manufacturer.

2.04 ACCESSORIES

A. Adhesive: Type recommended by fabricator to suit application.

B. Lumber for Shimming, Blocking, and Bracing: Softwood lumber of specified species.

C. Primer: Alkyd primer sealer.

D. Wood Filler: Solvent base, tinted to match surface finish color.

2.05 FABRICATION

A. Shop assemble work for delivery to site, permitting passage through building openings.

B. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.
2.06 SHOP FINISHING
   A. Apply wood filler in exposed nail and screw indentations.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify adequacy of backing and support framing.
   B. See Section 06 1000 Rough Carpentry for installation of recessed wood blocking.

3.02 INSTALLATION
   A. Install factory-fabricated units in accordance with manufacturer's printed installation instructions.
   B. Set and secure materials and components in place, plumb and level.
   C. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch.

3.03 PREPARATION FOR SITE FINISHING
   A. Set exposed fasteners. Apply wood filler in exposed fastener indentations. Sand work smooth.
   B. Site Finishing: See Section 09 9123.
   C. Before installation, prime paint surfaces of items or assemblies to be in contact with cementitious materials.

3.04 TOLERANCES
   A. Maximum Variation from True Position: 1/16 inch.
   B. Maximum Offset from True Alignment with Abutting Materials: 1/32 inch.

END OF SECTION
SECTION 06 4100 - PLASTIC LAMINATE FACED ARCHITECTURAL WOOD CASEWORK

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Specially fabricated cabinet units.
   B. Countertops.
   C. Hardware.

1.02 RELATED REQUIREMENTS
   A. Section 06 1000 - Rough Carpentry: Support framing, grounds, and concealed blocking.

1.03 REFERENCE STANDARDS
   A. AWI/AMAC/WI (AWS) - Architectural Woodwork Standards; 2014, with Errata (2016).
   B. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.

1.04 ADMINISTRATIVE REQUIREMENTS
   A. Preinstallation Meeting: Convene a preinstallation meeting not less than one week before starting work of this section; require attendance by all affected installers.

1.05 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.
   C. Product Data: Provide data for hardware accessories.
   D. Samples: Submit actual sample items of proposed pulls, hinges, shelf standards, and locksets, demonstrating hardware design, quality, and finish.

1.06 QUALITY ASSURANCE
   A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of experience.

1.07 DELIVERY, STORAGE, AND HANDLING
   A. Protect units from moisture damage.

1.08 FIELD CONDITIONS
   A. During and after installation of custom cabinets, maintain temperature and humidity conditions in building spaces at same levels planned for occupancy.

PART 2 PRODUCTS

2.01 CABINETS
   A. Quality Grade: Unless otherwise indicated provide products of quality specified by AWI/AMAC/WI (AWS) for Custom Grade.
   B. Cabinets at all locations:
      1. Finish - Exposed Exterior Surfaces: High pressure decorative laminate (HPDL).
      2. Finish - Exposed Interior Surfaces: Thermally fused laminate (TPL) or cabinet liner (CLS).
      4. Door and Drawer Front Edge Profiles: PVC extrusion.
      5. Casework Construction Type: Type A - Frameless.
      6. Interface Style for Cabinet and Door: Style 1 - Overlay; reveal overlay.
      7. Adjustable Shelf Loading: 40 lbs. per sq. ft.
         a. Deflection: L/144.
         b. Thickness: 1 inch for shelves over 30 inches span.
      8. Drawer Construction Technique: Dado joints; draw box front with lock rabbet joint and separate front face.
      9. Drawer Box: Thermally fused laminate on fiberboard.
10. Shelf Quantity: 1 per 10 to 14 inches of vertical case space for base, upper and full height cabinets, unless shown otherwise on Drawings.

2.02 SHEET MATERIALS
A. Softwood Plywood: Any face species, veneer core; PS 1 Grade A-B; waterproof glue.
B. Particleboard: ANSI A208.1; Industrial Grade (M-3); composed of wood chips, sawdust, or flakes of medium density, made with waterproof resin binders; of grade to suit application; sanded faces.
C. Fiberboard: ANSI A208.2; composed of cellulosic fibers combined with synthetic resin and joined together under heat and pressure. 49.0 lbs./cu.ft. medium density.
D. Hardboard: ANSI A135.4; Pressed wood fiber with resin binder, Class 1 - Tempered, 1/4 inch thick, smooth two sides (S2S).

2.03 LAMINATE MATERIALS
A. Manufacturers:
5. Substitutions: See Section 01 6000 - Product Requirements.
B. Thermally Fused Laminate (TFL): Melamine resin, NEMA LD 3, Type VGL laminate panels.
C. High Pressure Decorative Laminate (HPDL): NEMA LD 3.
D. Provide specific types as follows:
1. Horizontal Surfaces: HGS, 0.048 inch nominal thickness, color as selected, by architect from manufacturer's full range.
2. Vertical Surfaces: VGS, 0.028 inch nominal thickness, color as selected, as selected by architect from manufacturer's full range.
3. Horizontal and Vertical Surfaces: HPL (High Pressure Laminate), Chemical Resistant, 0.039 inch nominal thickness, color as selected, manufacturer's standard finish.
4. Cabinet Liner: CLS, 0.020 inch nominal thickness, white color, manufacturer's standard finish.
5. Laminate Backer: BKL, 0.020 inch nominal thickness, undecorated; for application to concealed backside of panels faced with high pressure decorative laminate.

2.04 COUNTERTOPS
A. Plastic Laminate Countertops (BASE BID): Medium density fiberboard substrate, covered with HPDL, conventionally fabricated and self-edge banded.
1. Exposed Edge: Square, substrate built up to minimum 1 1/2 inch thickness, cover with HPDL to match top.
2. Back and End Splashes: Same materials and construction as countertops, 3/4 inch thickness.
3. Aprons: Same materials and construction as countertops, 3/4 inch thickness, HPDL all sides.
B. Solid Surface Counter Tops (Alternate No.2): Medium density fiberboard substrate covered with Solid Surfce, conventionally fabricated and self edge banded.
1. Exposed Edges: Square, substrate built up to a minimum 1 1/2 inch thickness, cover with solid surface to match top.
2. Back and End Splashes: same material as construction as coutnertops, 3/4" thickness.
3. Color: To be selected by architect from manufacturer's full range.
4. Manufacturer's:
   a. LG Hausys
   b. Formica
   c. Corian
2.05 ACCESSORIES

A. Adhesive: Type recommended by AWI/AWMAC to suit application.
B. Sealant: As per Section 07 9200 Joint Sealants.
C. Plastic Edge Banding: Extruded PVC, 3 mm flat shaped with radius edge; smooth finish; of width to match component thickness.
   1. Color: As selected by Architect from manufacturer’s standard range.
   2. Use at exposed door, drawer front and shelf edges.
D. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; galvanized or chrome-plated finish in concealed locations and stainless steel or chrome-plated finish in exposed locations.
E. Concealed Joint Fasteners: Threaded steel.
F. Grommets: Standard plastic grommets for cut-outs, in color to blend with adjacent surface.

2.06 HARDWARE

A. Hardware: BHMA A156.9, types as indicated for quality grade specified.
B. Adjustable Shelf Supports: Side mounted, 1/4 inch diameter, twin pins with lock down fins, plastic material.
   1. Products:
      b. Substitutions: See Section 01 6000 - Product Requirements.
C. Drawer and Door Pulls: "U" shaped wire pull, steel with satin finish, 4 inch centers.
D. Door Restraints: Curved lever restraint with mounting plates allowing various degrees of swing.
E. Catches: Magnetic with adjustable body, minimum 5 pound holding force.
F. Drawer Slides: General use.
   1. Type: Full extension, captive nylon rollers.
   2. Static Load Capacity: 100 lbs.
   3. Mounting: Bottom or side.
   4. Stops: Integral type.
   5. Features: Provide self closing/stay closed type.
   7. Manufacturers:
      d. Substitutions: See Section 01 6000 - Product Requirements.
G. Hinges: European style concealed type, BHMA 156.9 Grade 1, steel with satin finish.
   1. Manufacturers:
      d. Substitutions: See Section 01 6000 - Product Requirements.
H. Sliding Door Bumpers: Black neoprene, 1/2 inch diameter, 1/4 inch deep, screw mount.

2.07 FABRICATION

A. Assembly: Shop assemble cabinets for delivery to site in units easily handled and to permit passage through building openings.
B. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.
C. Fitting: When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide matching trim for scribing and site cutting.
D. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Locate counter butt joints minimum 3 feet from sink cut-outs.
   1. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
E. Door Restraints: Install where swing of door will strike adjacent cabinets, countertops, walls or other building components.
F. Provide cutouts for plumbing fixtures. Verify locations of cutouts from on-site dimensions. Seal cut edges.

2.08 COUNTERTOP FABRICATION
A. Fabricate tops and splashes in the largest sections practicable, with top surface of joints flush.
   1. Join lengths of tops using best method recommended by manufacturer.
   2. Fabricate to overhang fronts and ends of cabinets 1 inch except where top butts against cabinet or wall.
   3. Prepare all cutouts accurately to size; replace tops having improperly dimensioned or unnecessary cutouts or fixture holes.
   4. Use plywood substrate on countertops within 3 feet of a sink.
B. Provide back/end splash wherever counter edge abuts vertical surface unless otherwise indicated.
   1. Secure to countertop with concealed fasteners and with contact surfaces set in waterproof glue.
   2. Height: 4 inches, unless otherwise indicated.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify adequacy of backing and support framing.

3.02 INSTALLATION
A. Set and secure custom cabinets in place, assuring that they are rigid, plumb, and level.
B. Use concealed joint fasteners to align and secure adjoining cabinet units.
C. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim for this purpose.
D. Install filler panels to close gaps at adjacent walls.
E. Secure cabinets to floor using appropriate angles and anchorages.
F. Securely attach countertops to cabinets using concealed fasteners. Make flat surfaces level; shim where required.
G. Seal joints between countertops, back/end splashes and vertical surfaces.

3.03 ADJUSTING
A. Adjust moving or operating parts to function smoothly and correctly.

3.04 CLEANING
A. Clean casework, counters, shelves, hardware, fittings, and fixtures.

3.05 PROTECTION
A. Protect installed products until completion of project.
B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION
SECTION 06 8316 - FIBERGLASS REINFORCED PANELING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Fiberglass reinforced plastic panels.
B. Trim.

1.02 REFERENCE STANDARDS

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Fiberglass Reinforced Plastic Panels:

2.02 PANEL SYSTEMS
A. Wall Panels:
   1. Panel Size:  4 by 8 feet.
   2. Panel Thickness:  0.10 inch.
   5. Attachment Method:  Adhesive only, sealant joints, no trim.

2.03 MATERIALS
A. Panels:  Fiberglass reinforced plastic (FRP), complying with ASTM D5319.
   1. Surface Burning Characteristics:  Maximum flame spread index of 25 and smoke developed index of 450; when system tested in accordance with ASTM E84.
B. Trim:  Vinyl; color coordinating with panel.
C. Sealant:  Type recommended by panel manufacturer; white.

PART 3 EXECUTION

3.01 EXAMINATION
A. Verify existing conditions and substrate flatness before starting work.
B. Verify that substrate conditions are ready to receive the work of this section.

3.02 INSTALLATION - WALLS
A. Install panels in accordance with manufacturer's instructions.
B. Cut and drill panels with carbide tipped saw blades, drill bits, or snips.
C. Apply adhesive to the back side of the panel using trowel as recommended by adhesive manufacturer.
D. Apply panels to wall with seams plumb and pattern aligned with adjoining panels.
E. Install panels with manufacturer's recommended gap for panel field and corner joints.
F. Place trim on panel before fastening edges, as required.
G. Fill channels in trim with sealant before attaching to panel.
H. Install trim with adhesive and screws or nails, as required.
I. Seal gaps at floor, ceiling, and between panels with applicable sealant to prevent moisture intrusion.

J. Remove excess sealant after paneling is installed and prior to curing.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES

A. Firestopping systems.
B. Firestopping of all joints and penetrations in fire resistance rated and smoke resistant assemblies, whether indicated on drawings or not, and other openings indicated.

1.02 REFERENCE STANDARDS

D. ITS (DIR) - Directory of Listed Products; current edition.

1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Schedule of Firestopping: List each type of penetration, fire rating of the penetrated assembly, and firestopping test or design number.
C. Product Data: Provide data on product characteristics, performance ratings, and limitations.
D. Manufacturer's Installation Instructions: Indicate preparation and installation instructions.

1.04 QUALITY ASSURANCE

A. Fire Testing: Provide firestopping assemblies of designs that provide the scheduled fire ratings when tested in accordance with methods indicated.
   1. Listing in UL (FRD), FM (AG), or ITS (DIR) will be considered as constituting an acceptable test report.
   2. Valid evaluation report published by ICC Evaluation Service, Inc. (ICC-ES) at www.icc-es.org will be considered as constituting an acceptable test report.
B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
C. Installer Qualifications: Company specializing in performing the work of this section and:
   1. Verification of minimum three years documented experience installing work of this type.

1.05 FIELD CONDITIONS

A. Comply with firestopping manufacturer's recommendations for temperature and conditions during and after installation; maintain minimum temperature before, during, and for three days after installation of materials.
B. Provide ventilation in areas where solvent-cured materials are being installed.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Firestopping Manufacturers:
   1. 3M Fire Protection Products: www.3m.com/firestop/#sle.
5. Substitutions:  See Section 01 6000 - Product Requirements.

2.02 MATERIALS
A. Firestopping Materials:  Any materials meeting requirements.
B. Primers, Sleeves, Forms, Insulation, Packing, Stuffing, and Accessories:  Provide type of materials as required for tested firestopping assembly.
C. Fire Ratings:  Refer to drawings for required systems and ratings.

2.03 FIRESTOPPING ASSEMBLY REQUIREMENTS
A. Floor-to-Floor, Wall-to-Wall, and Wall-to-Floor Joints, Except Perimeter, Where Both Are Fire-Rated:  Use system that has been tested according to ASTM E1966 or UL 2079 to have fire resistance F Rating equal to required fire rating of the assembly in which the joint occurs.
   1. Movement:  Provide systems that have been tested to show movement capability as indicated.
B. Through Penetration Firestopping:  Use system that has been tested according to ASTM E814 to have fire resistance F Rating equal to required fire rating of penetrated assembly.

2.04 FIRESTOPPING FOR FLOOR-TO-FLOOR, WALL-TO-FLOOR, AND WALL-TO-WALL JOINTS
A. Gypsum Board Walls:
   1. Top of Wall Joints at Underside of Steel Beam and Concrete Over Metal Deck Floor with Sprayed On Fireproofing:
      a. 1 Hour Construction:  UL System HW-D-0259; Hilti CFS-SP WB Firestop Joint Spray and CP 672.

2.05 FIRESTOPPING PENETRATIONS THROUGH GYPSUM BOARD WALLS
A. Penetrations By:
   1. Uninsulated Metallic Pipe, Conduit, and Tubing:
      a. 1 Hour Construction:  UL System W-L-1054; Hilti FS-ONE MAX Intumescent Firestop Sealant.
   2. Insulated Pipes:
      a. 1 Hour Construction:  UL System W-L-5028; Hilti FS-ONE MAX Intumescent Firestop Sealant.
   3. HVAC Ducts, Insulated:
      a. 1 Hour Construction:  UL System W-L-7156; Hilti FS-ONE MAX Intumescent Firestop Sealant.

2.06 FIRESTOPPING SYSTEMS
A. Firestopping:  Any material meeting requirements.
   1. Fire Ratings:  Use system that is listed by FM (AG), ITS (DIR), or UL (FRD) and tested in accordance with ASTM E814, ASTM E119, or UL 1479 with F Rating equal to fire rating of penetrated assembly and minimum T Rating Equal to F Rating and in compliance with other specified requirements.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify openings are ready to receive the work of this section.

3.02 PREPARATION
A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other materials that could adversely affect bond of firestopping material.
B. Remove incompatible materials that could adversely affect bond.
3.03 INSTALLATION
   A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.

3.04 FIELD QUALITY CONTROL
   A. Repair or replace penetration firestopping and joints at locations where inspection results indicate firestopping or joints do not meet specified requirements.

3.05 CLEANING
   A. Clean adjacent surfaces of firestopping materials.

3.06 PROTECTION
   A. Protect adjacent surfaces from damage by material installation.

END OF SECTION
SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Non-fire-rated hollow metal doors and frames.
B. Hollow metal frames for wood doors.
C. Fire-rated hollow metal doors and frames.
D. Thermally insulated hollow metal doors with frames.
E. Hollow metal borrowed lites glazing frames.

1.02 RELATED REQUIREMENTS

A. Section 08 7100 - Door Hardware.
B. Section 08 8000 - Glazing: Glass for doors and borrowed lites.

1.03 REFERENCE STANDARDS

C. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2014.
H. BHMA A156.115 - American National Standard for Hardware Preparation in Steel Doors and Steel Frames; 2014.
J. ITS (DIR) - Directory of Listed Products; current edition.
L. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames; 2011.

1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced standards/guidelines.

C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.

D. Samples: Submit two samples of metal, 2 inch by 2 inch in size showing factory finishes, colors, and surface texture.

E. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Provide hollow metal doors and frames from SDI Certified manufacturer: www.steeldoor.org/sdicertified.php/#sle.

B. Maintain at project site copies of reference standards relating to installation of products specified.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.

B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Hollow Metal Doors and Frames:
   7. Substitutions: See Section 01 6000 - Product Requirements.

2.02 PERFORMANCE REQUIREMENTS

A. Requirements for Hollow Metal Doors and Frames:
   1. Steel Sheet: Comply with one or more of the following requirements; galvannealed steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A511/A1011M, commercial steel (CS) Type B, for each.
   2. Accessibility: Comply with ICC A117.1 and ADA Standards.
   3. Door Top and Bottom Closures: Inverted channel; provide metal closing channel at exterior locations.
   4. Door Edge Profile: Hinged edge square, and lock edge beveled.
   5. Typical Door Face Sheets: Flush.
   7. Hardware Preparations, Selections and Locations: Comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA A156.115 and ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.

2.03 HOLLOW METAL DOORS

A. Exterior Doors: Thermally insulated.
1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
   a. Level 4 - Maximum-duty.
   b. Physical Performance Level A, 1,000,000 cycles; in accordance with ANSI/SDI A250.4.
   c. Model 2 - Seamless.
   d. Door Face Metal Thickness: 14 gage, 0.067 inch, minimum.
   e. Zinc Coating: A60/ZF180 galvannealed coating; ASTM A653/A653M.
2. Door Thermal Resistance: R-Value of 8.7, minimum, for installed thickness of polyurethane.
4. Weatherstripping: Integral, recessed into door edge or frame.
5. Door Finish: Factory primed and field finished.

B. Type ___, Fire-Rated Doors:
1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
   a. Level 1 - Standard-duty.
   b. Physical Performance Level C, 250,000 cycles; in accordance with ANSI/SDI A250.4.
   c. Model 1 - Full Flush.
   d. Door Face Metal Thickness: 20 gage, 0.032 inch, minimum.
2. Fire Rating: As indicated on Door Schedule, tested in accordance with UL 10C and NFPA 252 ("positive pressure fire tests").
3. Provide units listed and labeled by UL (DIR) or ITS (DIR).
   a. Attach fire rating label to each fire rated unit.

2.04 HOLLOW METAL FRAMES
A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.
B. Frame Finish: Factory primed and field finished.
C. Interior Door Frames, Non-Fire Rated: Face welded type.
   1. Frame Metal Thickness: 16 gage, 0.053 inch, minimum.
D. Door Frames, Fire-Rated: Face welded type.
   1. Fire Rating: Same as door, labeled.
E. Frames for Wood Doors: Comply with frame requirements in accordance with corresponding door.
F. Borrowed Lites Glazing Frames: Construction and face dimensions to match door frames, and as indicated on drawings.

2.05 FINISHES
A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

2.06 ACCESSORIES
A. Glazing: As specified in Section 08 8000.
B. Removable Stops: Formed sheet steel, mitered corners; prepared for countersink style tamper proof screws.
C. Anchors:
   1. Masonry: tube and strap channel welded to frame punched and dimpled to receive expansion anchors.
   2. Steel Stud: Channel anchor or multi-purpose strap anchor.
   3. Base: Adjustable or fixed anchor.
D. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.
E. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.
2.07 FINISHES
   A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify existing conditions before starting work.
   B. Verify that opening sizes and tolerances are acceptable.
   C. Verify that finished walls are in plane to ensure proper door alignment.

3.02 INSTALLATION
   A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
   B. Install fire rated units in accordance with NFPA 80.
   C. Coordinate frame anchor placement with wall construction.
   D. Install door hardware as specified in Section 08 7100.
   E. Comply with glazing installation requirements of Section 08 8000.
   F. Touch up damaged factory finishes.

3.03 TOLERANCES
   A. Clearances Between Door and Frame: Comply with related requirements of specified frame standards or custom guidelines indicated in accordance with SDI 117 or NAAMM HMMA 861.
   B. Maximum Diagonal Distortion: 1/16 inch measured with straight edge, corner to corner.

3.04 ADJUSTING
   A. Adjust for smooth and balanced door movement.

3.05 SCHEDULE
   A. Refer to Door and Frame Schedule on the drawings.

END OF SECTION
SECTION 08 1416 - FLUSH WOOD DOORS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Flush wood doors; flush and flush glazed configuration; non-rated.

1.02 RELATED REQUIREMENTS
A. Section 08 1113 - Hollow Metal Doors and Frames.
B. Section 08 7100 - Door Hardware.
C. Section 09 9123 - Interior Painting: Field finishing of doors. A number of existing wood doors will be salvaged, refinished, and rehung. Contractor to match finishing of existing doors, to match new doors.

1.03 REFERENCE STANDARDS
A. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014, with Errata (2016).
E. WDMA I.S. 1A - Interior Architectural Wood Flush Doors; 2013.

1.04 SUBMITTALS
A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
C. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
   1. Provide information as required by AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS).
D. Samples: Submit two samples of door veneer, 8-1/2” by 11” in size illustrating wood grain.
E. Certificate: Submit labels and certificates required by quality assurance and quality control programs.
F. Specimen warranty.
G. Warranty, executed in Owner’s name.

1.05 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten years of experience.
   1. Company with at least one project within the past 5 years with value of woodwork within 20 percent of cost of woodwork for this project.
   2. Accredited participant in the specified certification program prior to the commencement of fabrication and throughout the duration of the project.
B. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of documented experience.
C. Quality Certification:
   1. Provide labels or certificates indicating that the installed work complies with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade or grades specified.
   2. Provide designated labels on shop drawings as required by certification program.
   3. Provide designated labels on installed products as required by certification program.
   4. Submit certifications upon completion of installation that verifies this work is in compliance with specified requirements.
1.06 DELIVERY, STORAGE, AND HANDLING
   A. Package, deliver and store doors in accordance with specified quality standard.
   B. Accept doors on site in manufacturer's packaging. Inspect for damage.
   C. Top and bottom rails shall be factory sealed.
   D. Protect doors with resilient packaging sealed with heat shrunk plastic. Do not store in damp or wet areas; or in areas where sunlight might bleach veneer. Break seal on site to permit ventilation.

1.07 WARRANTY
   A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
   B. Interior Doors: Provide manufacturer's warranty for the life of the installation.
   C. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

PART 2 PRODUCTS
2.01 MANUFACTURERS
   A. Wood Veneer Faced Doors:
      2. Substitutions: See Section 01 6000 - Product Requirements.

2.02 DOORS
   A. Doors: See drawings for locations and additional requirements.
      1. Quality Level: Custom Grade, Heavy Duty performance, in accordance with WDMA I.S. 1A.
      2. Wood Veneer Faced Doors: 5-ply unless otherwise indicated.
         a. Species: Oak
   B. Interior Doors: 1-3/4 inches thick unless otherwise indicated; flush construction.
      1. Provide solid core doors at each location.
      2. Fire Rated Doors: Tested to ratings indicated on drawings in accordance with UL 10C - Positive Pressure; Underwriters Laboratories Inc (UL) or Intertek/Warnock Hersey (WHI) labeled without any visible seals when door is open.
      3. Wood veneer facing with factory transparent finish to match existing doors.
      4. Wood veneer facing for field stain finish, to match finish of existing doors.

2.03 DOOR AND PANEL CORES
   A. Non-Rated Solid Core and 20 Minute Rated Doors: Type particleboard core (PC), plies and faces as indicated.
   B. Fire-Rated Doors: Mineral core type, with fire resistant composite core (FD), plies and faces as indicated above; with core blocking as required to provide adequate anchorage of hardware without through-bolting.

2.04 DOOR FACINGS
   A. Veneer Facing for Transparent Finish: White birch, to match existing doors, veneer grade in accordance with quality standard indicated, veneer cut to match existing doors, balance match of spliced veneer leaves assembled on door or panel face.
      1. Vertical Edges: Same species as face veneer.
      2. “Running Match” each pair of doors and doors in close proximity to each other.
   B. Facing Adhesive: Type I - waterproof.

2.05 ACCESSORIES
   A. Glazing: As specified in Section 08 8000.
   B. Glazing Stops: Wood, of same species as door facing, mitered corners; prepared for countersink style tamper proof screws.
2.06 DOOR CONSTRUCTION
   A. Fabricate doors in accordance with door quality standard specified.
   B. Cores Constructed with stiles and rails:
      1. Provide solid blocks at lock edge and top of door for closer for hardware reinforcement.
   C. Factory machine doors for hardware other than surface-mounted hardware, in accordance with
      hardware requirements and dimensions.
   D. Factory fit doors for frame opening dimensions identified on shop drawings, with edge
      clearances in accordance with specified quality standard.
   E. Provide edge clearances in accordance with the quality standard specified.

2.07 FACTORY FINISHING - WOOD VENEER DOORS
   A. Finish work in accordance with WDMA I.S. 1A for grade specified and as follows:
      1. Transparent:
         a. System - TR-2, Catalyzed Lacquer.
         b. Stain to match existing doors.
         c. Sheen: Satin.
   B. Seal door top edge with color sealer to match door facing.

2.08 ACCESSORIES
   A. Hollow Metal Door Frames: As specified in Section 08 1113.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify existing conditions before starting work.
   B. Verify that opening sizes and tolerances are acceptable.
   C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or
      alignment.

3.02 INSTALLATION
   A. Install doors in accordance with manufacturer's instructions and specified quality standard.
      1. Install fire-rated doors (when applicable) in accordance with NFPA 80 requirements.
   B. Factory-Finished Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.
   C. Field-Finished Doors: Trimming to fit is acceptable.
      1. Adjust width of non-rated doors by cutting equally on both jamb edges.
      2. Trim maximum of 3/4 inch off bottom edges.
      3. Trim fire-rated doors in strict compliance with fire rating limitations.
   D. Use machine tools to cut or drill for hardware.
   E. Coordinate installation of doors with installation of frames and hardware.

3.03 TOLERANCES
   A. Comply with specified quality standard for fit and clearance tolerances.
   B. Comply with specified quality standard for telegraphing, warp, and squareness.

3.04 ADJUSTING
   A. Adjust doors for smooth and balanced door movement.
   B. Adjust closers for full closure.

3.05 SCHEDULE
   A. Refer to Door and Frame Schedule in drawings.

END OF SECTION
SECTION 08 4313 - ALUMINUM-FRAMED STOREFRONTS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Aluminum-framed storefront, with vision glass.
   B. Aluminum doors and frames.
   C. Weatherstripping.
   D. Door hardware.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, and internal drainage details.
   C. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related work, expansion and contraction joint location and details, and field welding required.
   D. Samples: Submit two samples 6 by 6 inches in size illustrating finished aluminum surface, glass, glazing materials.
   E. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in Contract Documents.
   F. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.04 QUALITY ASSURANCE
   A. Installer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.

1.05 WARRANTY
   A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
   B. Correct defective Work within a five year period after Date of Substantial Completion.
   C. Provide five year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.
   D. Provide five year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

PART 2 PRODUCTS

2.01 BASIS OF DESIGN -- FRAMING FOR INSULATING GLAZING
   A. Center-Set Style, Wind-Borne-Debris Resistance Tested:
      2. Vertical Mullion Dimensions: 2 inches wide by 4-1/2 inches deep.

2.02 BASIS OF DESIGN -- SWINGING DOORS
   A. Wide Stile, Insulating Glazing, Thermally-Broken:
2.03 STOREFRONT

A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
   1. Glazing Rabbet: For 1 inch insulating glazing.
   2. Finish: Class I color anodized.
      a. Factory finish all surfaces that will be exposed in completed assemblies.
   3. Finish Color: Match existing storefront.
   4. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
   6. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
   7. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.
   8. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
   9. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.

2.04 COMPONENTS

A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
B. Glazing: As specified in Section 08 8000.

2.05 MATERIALS

B. Fasteners: Stainless steel.
C. Exposed Flashings: Aluminum sheet, 20 gage, 0.032 inch minimum thickness; finish to match framing members.
D. Concealed Flashings: Sheet aluminum, 26 gage, 0.017 inch minimum thickness.
E. Sill Flashing Sealant: Elastomeric, silicone or polyurethane, compatible with flashing material.
F. Sealant for Setting Thresholds: Non-curing butyl type.
G. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.

2.06 FINISHES

A. Class I Color Anodized Finish: AAMA 611 AA-M12C22A44 Electrolytically deposited colored anodic coating not less than 0.7 mils thick.

2.07 HARDWARE

A. For each door, include weatherstripping, sill sweep strip, and threshold.
B. Weatherstripping: Wool pile, continuous and replaceable; provide on all doors.
C. Sill Sweep Strips: Resilient seal type, retracting, of neoprene; provide on all doors.
D. Threshold: Extruded aluminum, thermally broken, one piece per door opening, ribbed surface; provide on all exterior doors.
PART 3 EXECUTION

3.01 EXAMINATION
A. Verify dimensions, tolerances, and method of attachment with other work.
B. Verify that wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

3.02 INSTALLATION
A. Install wall system in accordance with manufacturer's instructions.
B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
C. Provide alignment attachments and shims to permanently fasten system to building structure.
D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
E. Provide thermal isolation where components penetrate or disrupt building insulation.
F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.
G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.
H. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
I. Set thresholds in bed of sealant and secure.
J. Install hardware using templates provided.
K. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

3.03 TOLERANCES
A. Maximum Variation from Plumb: 0.06 inch per 3 feet non-cumulative or 0.06 inch per 10 feet, whichever is less.
B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.

3.04 ADJUSTING
A. Adjust operating hardware and sash for smooth operation.

END OF SECTION
SECTION 08 7100 - DOOR HARDWARE

PART 3 EXECUTION

1.01 EXAMINATION
A. Verify that doors and frames are ready to receive this work; labeled, fire-rated doors and frames are properly installed, and dimensions are as indicated on shop drawings.
B. Verify that electric power is available to power operated devices and of correct characteristics.

1.02 INSTALLATION
A. Install hardware in accordance with manufacturer's instructions and applicable codes.
B. Use templates provided by hardware item manufacturer.
C. Door Hardware Mounting Heights: Distance from finished floor to center line of hardware item. As indicated in following list; unless noted otherwise in Door Hardware Schedule or on drawings.
   1. Mounting heights in compliance with ADA Standards:
D. Set exterior door thresholds with full-width bead of elastomeric sealant at each point of contact with floor providing a continuous weather seal; anchor thresholds with stainless steel countersunk screws.

1.03 FIELD QUALITY CONTROL
A. Perform field inspection and testing under provisions of Section 01 4000 - Quality Requirements.

1.04 ADJUSTING
A. Adjust work under provisions of Section 01 7000 - Execution and Closeout Requirements.
B. Adjust hardware for smooth operation.
C. Adjust gasketing for complete, continuous seal; replace if unable to make complete seal.

1.05 CLEANING
A. Clean finished hardware in accordance with manufacturer's written instructions after final adjustments have been made.
B. Clean adjacent surfaces soiled by hardware installation.
C. Replace items that cannot be cleaned to manufacturer's level of finish quality at no additional cost.
D. See Section 01 7419 - Construction Waste Management and Disposal, for additional requirements.

1.06 PROTECTION
A. Protect finished Work under provisions of Section 01 7000 - Execution and Closeout Requirements.
B. Do not permit adjacent work to damage hardware or finish.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Insulating glass units.
   B. Glazing units.
   C. Glazing compounds and accessories.

1.02 RELATED REQUIREMENTS
   A. Section 08 1113 - Hollow Metal Doors and Frames: Glazed borrowed lites.
   B. Section 08 4313 - Aluminum-Framed Storefronts: Glazing furnished as part of storefront assembly.
   C. Section 10 2800 - Toilet, Bath, and Laundry Accessories: Mirrors.

1.03 REFERENCE STANDARDS

1.04 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Product Data on Insulating Glass Unit and Glazing Unit Glazing Types: Provide structural, physical and environmental characteristics, size limitations, special handling and installation requirements.
   C. Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.
   D. Samples: Submit two samples 12 inch by 12 inch in size of glass units, showing coloration and design.
   E. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE
   A. Perform Work in accordance with GANA (GM), GANA (SM), GANA (LGRM), and IGMA TM-3000 for glazing installation methods.
B. Installer Qualifications: Company specializing in performing the work of this section with minimum five years experience.

1.06 FIELD CONDITIONS
A. Do not install glazing when ambient temperature is less than 40 degrees F.
B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.07 WARRANTY
A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
B. Insulating Glass Units: Provide a five (5) year manufacturer warranty to include coverage for seal failure, interpane dusting or misting, including replacement of failed units.
C. Laminated Glass: Provide a five (5) year manufacturer warranty to include coverage for delamination, including providing products to replace failed units.

PART 2 PRODUCTS
2.01 GLASS MATERIALS
A. Float Glass: Provide float glass based glazing unless otherwise indicated.
   1. Annealed Type: ASTM C1036, Type I - Transparent Flat, Class 1 - Clear, Quality - Q3.
   3. Fully Tempered Safety Glass: Complies with ANSI Z97.1 or 16 CFR 1201 criteria for safety glazing used in hazardous locations.
B. Laminated Glass: Float glass laminated in accordance with ASTM C1172.
   1. Laminated Safety Glass: Complies with ANSI Z97.1 - Class B or 16 CFR 1201 - Category I impact test requirements.

2.02 INSULATING GLASS UNITS
A. Manufacturers:
   1. Fabricator certified by glass manufacturer for type of glass, coating, and treatment involved and capable of providing specified warranty.
B. Insulating Glass Units: Types as indicated.
   1. Durability: Certified by an independent testing agency to comply with ASTM E2190.
   2. Coated Glass: Comply with requirements of ASTM C1376 for pyrolytic (hard-coat) or magnetic sputter vapor deposition (soft-coat) type coatings on flat glass; coated vision glass, Kind CV; coated overhead glass, Kind CO; or coated spandrel glass, Kind CS.
   3. Metal Edge Spacers: Aluminum, bent and soldered corners.
   5. Edge Seal:
      a. Dual-Sealed System: Provide polysisobutylene sealant as primary seal applied between spacer and glass panes, and silicone or polysulfide sealant as secondary seal applied around perimeter.
   7. Purge interpane space with dry air, hermetically sealed.
   8. Capillary Tubes: Provide tubes from air space for insulating glass units without inert type gas that have a change of altitude greater than 2500 feet between point of fabrication and point of installation to permit pressure equalization of air space.
      a. Capillary Tubes: Tubes to remain open and be of length and material type in accordance with insulating glass fabricator's requirements.
C. Type GL-2 - Insulating Glass Units: General use vision glass, double glazed.
   1. Applications: Exterior glazing unless otherwise indicated.
   2. Space between lites filled with air.
   3. Outboard Lite: Annealed float glass, 1/4 inch thick, minimum.
      a. Tint: to be selected by architect.
   4. Inboard Lite: Annealed float glass, 1/4 inch thick, minimum.
a. Tint: Clear.
b. Coating: Low-E, on #3 surface. Solarban 60
5. Total Thickness: 1 inch.
6. Thermal Transmittance (U-Value), Summer - Center of Glass: 0.32, nominal.
10. Solar Heat Gain Coefficient (SHGC): 0.35, nominal.
11. Visible Light Reflectance, Outside: 8 percent, nominal.

2.03 GLAZING UNITS
A. Type GL-1 - Monolithic Interior Vision Glazing:
1. Applications: Interior glazing unless otherwise indicated.
2. Glass Type: Fully tempered float glass.
3. Tint: Clear.
4. Thickness: 1/4 inch, nominal.
5. Glazing Method: Hollow Metal Frames - Wet/dry glazing method, preformed tape and sealant.
B. Type GL-3 - Etched Glass: Etched patterns on glass as full-coverage or discrete designs.
1. Applications: As indicated on drawings.
2. Glass Type: Monolithic; tempered safety glass; silk-screened glass.
3. Thickness: 0.197 inch, nominal.
4. Pattern: As indicated on drawings.
5. Sheet Size: As indicated on drawings.
7. Shaping and Edge Finishing: Edge grinding; prior to heat-treatment.
8. Finish: F1 - Patterned one side; ASTM C1036.
10. Glass Wall Trim: Continuous top and bottom snap on type; adjustable for variations in floor level.
a. Trim Material: Aluminum
b. Panel Joints: Butt Joints
c. Base Profile: U-shape snap on base
d. Ceiling trim Profile: Projected
e. Finish: Clear-anodized aluminum

2.04 ACCESSORIES
A. Setting Blocks: Silicone, with 80 to 90 Shore A durometer hardness; ASTM C864 Option II.
   Length of 0.1 inch for each square foot of glazing or minimum 4 inch by width of glazing rabbet space minus 1/16 inch by height to suit glazing method and pane weight and area.
B. Spacer Shims: Silicone, 50 to 60 Shore A durometer hardness; ASTM C864 Option II.
   Minimum 3 inch long x one half the height of the glazing stop x thickness to suit application, self adhesive on one face.
C. Glazing Tape: Closed cell polyvinyl chloride (PVC) foam, coiled on release paper over adhesive on two sides, maximum water absorption by volume of 2 percent, designed for compression of 25 percent to effect an air barrier and vapor retarder seal; overall inch size to fit glazing channel.
D. Glazing Splines: Resilient silicone extruded shape to suit glazing channel retaining slot; ASTM C864 Option II; color black.
E. Glazing Gaskets: Resilient silicone extruded shape to suite glazing channel retaining slot; ASTM C864 Option II; black color.
PART 3 EXECUTION

3.01 VERIFICATION OF CONDITIONS

A. Verify that openings for glazing are correctly sized and within tolerances, including those for size, squareness, and offsets at corners.

B. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and support framing is ready to receive glazing system.

3.02 PREPARATION

A. Clean contact surfaces with appropriate solvent and wipe dry within maximum of 24 hours before glazing. Remove coatings that are not tightly bonded to substrates.

B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.

C. Prime surfaces scheduled to receive sealant where required for proper sealant adhesion.

3.03 INSTALLATION, GENERAL

A. Do not exceed edge pressures around perimeter of glass lites as stipulated by glass manufacturer.

B. Set glass lites of system with uniform pattern, draw, bow, and similar characteristics.

C. Set glass lites in proper orientation so that coatings face exterior or interior as indicated.

3.04 INSTALLATION - DRY GLAZING METHOD (GASKET GLAZING)

A. Application - Exterior and/or Interior Glazed: Set glazing infills from either the exterior or the interior of the building.

B. Place setting blocks at 1/8 points with edge block no more than 6 inch from corners.

C. Rest glazing on setting blocks and push against fixed stop with sufficient pressure on gasket to attain full contact.

D. Install removable stops without displacing glazing gasket; exert pressure for full continuous contact.

E. Pull gaskets 1 inch in each direction at corner miters and apply butyl sealant along joint in both directions to complete moisture and air seal. Reinstall gaskets and remove displaced excess sealant. Do this at exterior and interior gaskets.

3.05 INSTALLATION - WET/DRY GLAZING METHOD (SEALED TAPE AND GASKET SPLINE GLAZING)

A. Application - Interior Glazed: Set glazing infills from the interior of the building.

B. Cut glazing tape to length; install on interior face of exterior window sash glazing leg. Seal corners by butting tape and sealing junctions with butyl sealant.

C. Place setting blocks at 1/8 points with edge block no more than 6 inch from corners. Do not cover weep holes.

D. Rest glazing on setting blocks and push against fixed stop with sufficient pressure to attain full contact.

E. Install removable stops without displacing glazing spline. Exert pressure for full continuous contact.

F. Carefully trim protruding tape with knife.

G. Complete glazing seal by adding bead of silicone sealant around exterior over edge of tape and frame. Wipe and remove excess sealant.
3.06 CLEANING

A. Remove excess glazing materials from finish surfaces immediately after application using solvents or cleaners recommended by manufacturers.

B. Remove non-permanent labels immediately after glazing installation is complete.

C. Clean glass and adjacent surfaces after sealants are fully cured.

D. Clean glass on both exposed surfaces not more than 4 days prior to Date of Substantial Completion in accordance with glass manufacturer's written recommendations.

END OF SECTION
SECTION 09 2116 - GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Performance criteria for gypsum board assemblies.
B. Metal stud wall framing.
C. Acoustic insulation.
D. Gypsum wallboard.
E. Joint treatment and accessories.

1.02 RELATED REQUIREMENTS
A. Section 06 1000 - Rough Carpentry: Wood blocking product and execution requirements.

1.03 REFERENCE STANDARDS
A. AISI S100-12 - North American Specification for the Design of Cold-Formed Steel Structural Members; American Iron and Steel Institute; 2012.
H. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness; 2015.
I. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2016.

1.04 SUBMITTALS
A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Shop Drawings: Indicate special details associated with fireproofing and acoustic seals.
C. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.
D. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.
PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

A. Provide completed assemblies complying with ASTM C840 and GA-216.
   1. See PART 3 for finishing requirements.

B. Fire Rated Assemblies: Provide completed assemblies with the following characteristics:
   1. Fire Rated Partitions: GA-600 File Number WP 1072; 1 hour rating.
   2. Head of Fire Rated Partitions: GA600 SRS 7101; 1 hour rating.
   3. Gypsum Association File Numbers: Comply with requirements of GA-600 for the particular assembly.

2.02 METAL FRAMING MATERIALS

A. Manufacturers - Metal Framing, Connectors, and Accessories:

B. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf.
   1. Studs: "C" shaped with flat or formed webs with knurled faces.
   2. Runners: U shaped, sized to match studs.
   3. Furring: Hat-shaped sections, minimum depth of 7/8 inch.

C. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection using slotted holes, screws and anti-friction bushings, preventing rotation of studs while maintaining structural performance of partition.
   1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100-12.
   3. Provide mechanical anchorage devices as described above that accommodate deflection while maintaining the fire-rating of the wall assembly.

2.03 BOARD MATERIALS

A. Manufacturers - Gypsum-Based Board:

B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
   1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
   2. Thickness:

C. Backing Board For Wet Areas: One of the following products:
   1. Application: Surfaces behind tile in wet areas including restrooms.
   2. Glass Mat Faced Board: Coated glass mat water-resistant gypsum backing panel as defined in ASTM C1178/C1178M.
      a. Regular Type: Thickness 1/2 inch.
2.04 GYPSUM WALLBOARD ACCESSORIES

A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced. Thickness: 2 inch.

B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
   1. Products:

C. Beads, Joint Accessories, and Other Trim: ASTM C1047, rigid plastic, galvanized steel, or rolled zinc, unless noted otherwise.
   1. Corner Beads: Low profile, for 90 degree outside corners.
      a. Products:
         1) CertainTeed Corporation; No-Coat Drywall Corner: www.certainteed.com/#sle.
         2) ClarkDietrich Building Systems; Strait-Flex Big-Stick: www.clarkdietrich.com/#sle.
   2. L-Trim with Tear-Away Strip: Sized to fit 5/8 inch thick gypsum wallboard.
      a. Products:
         1) Phillips Manufacturing Co; gripSTIK L-Tear: www.phillipsmfg.com/#sle.
      2) Substitutions: See Section 01 6000 - Product Requirements.
   3. Expansion Joints:
      a. Type: V-shaped metal with factory-installed protective tape.

D. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.

E. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.

F. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inch in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion resistant.

G. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch in Thickness: ASTM C954; steel drill screws, corrosion resistant.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.02 FRAMING INSTALLATION

A. Metal Framing: Install in accordance with ASTM C754 and manufacturer's instructions.

B. Studs: Space studs at 16 inches on center.
   1. Extend partition framing to structure where indicated and to ceiling in other locations.
   2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
   3. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.

C. Standard Wall Furring: Install at concrete walls scheduled to receive gypsum board, not more than 4 inches from floor and ceiling lines and abutting walls. Secure in place on alternate channel flanges at maximum 24 inches on center.

D. Blocking: Install wood blocking for support of:
1. Wall mounted cabinets.
2. Plumbing fixtures.
3. Toilet accessories.
4. Wall mounted door hardware.

3.03 ACOUSTIC ACCESSORIES INSTALLATION
A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
B. Acoustic Sealant: Install in accordance with manufacturer’s instructions.

3.04 BOARD INSTALLATION
A. Comply with ASTM C840, GA-216, and manufacturer’s instructions. Install to minimize butt end joints, especially in highly visible locations.
B. Fire-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.

3.05 INSTALLATION OF TRIM AND ACCESSORIES
A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
   1. Not more than 30 feet apart on walls and ceilings over 50 feet long.
B. Corner Beads: Install at external corners, using longest practical lengths.
C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

3.06 JOINT TREATMENT
A. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
   1. Level 5: Walls and ceilings to receive semi-gloss or gloss paint finish and other areas specifically indicated.
   2. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
   3. Level 1: Fire rated wall areas above finished ceilings, whether or not accessible in the completed construction.
B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Feather coats of joint compound so that camber is maximum 1/32 inch.
C. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.

3.07 TOLERANCES
A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Metal partition, ceiling, and soffit framing.
   B. Framing accessories.

1.02 REFERENCE STANDARDS
   A. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members; 2014, with
   B. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive

1.03 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Shop Drawings:
      1. Indicate prefabricated work, component details, stud layout, framed openings, anchorage
         to structure, acoustic details, type and location of fasteners, accessories, and items of
         other related work.
      2. Describe method for securing studs to tracks, splicing, and for blocking and reinforcement
         of framing connections.

PART 2 PRODUCTS

2.01 MANUFACTURERS
   A. Metal Framing, Connectors, and Accessories:
      1. CEMCO:  www.cemcosteel.com/#sle.
     10. Substitutions:  See Section 01 6000 - Product Requirements.

2.02 FRAMING MATERIALS
   A. Non-Loadbearing Framing System Components:  ASTM C645; galvanized sheet steel, of size
      and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum
      deflection of wall framing of L/240 at 5 psf.
      1. Studs:  C shaped with flat or formed webs with knurled faces.
      2. Runners:  U shaped, sized to match studs.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify existing conditions before starting work.
   B. Verify that rough-in utilities are in proper location.

3.02 INSTALLATION OF STUD FRAMING
   A. Extend partition framing to structure where indicated and to ceiling in other locations.
   B. Partitions Terminating at Ceiling:  Attach ceiling runner securely to ceiling track in accordance
      with manufacturer’s instructions.
   C. Partitions Terminating at Structure:  Attach extended leg top runner to structure, maintain
      clearance between top of studs and structure, and brace both flanges of studs as indicated.
D. Align and secure top and bottom runners at 24 inches on center.
E. Install studs vertically at 16 inches on center.
F. Align stud web openings horizontally.
G. Secure studs to tracks using crimping method. Do not weld.
H. Stud splicing is not permissible.
I. Fabricate corners using a minimum of three studs.
J. Double stud at wall openings, door and window jambs, not more than 2 inches from each side of openings.
K. Brace stud framing system rigid.
L. Coordinate erection of studs with requirements of door frames; install supports and attachments.
M. Coordinate installation of bucks, anchors, and blocking with electrical, mechanical, and other work to be placed within or behind stud framing.
N. Blocking: Use wood blocking secured to studs. Provide blocking for support of plumbing fixtures, toilet partitions, wall cabinets, toilet accessories, hardware, and opening frames.
O. Furring: Install at spacing and locations shown on drawings. Lap splices a minimum of 6 inches.

3.03 CEILING AND SOFFIT FRAMING
A. Install furring after work above ceiling or soffit is complete. Coordinate the location of hangers with other work.
B. Install furring independent of walls, columns, and above-ceiling work.
C. Securely anchor hangers to structural members or embed in structural slab. Space hangers as required to limit deflection to criteria indicated. Use rigid hangers at exterior soffits.
D. Space main carrying channels at maximum 72 inch on center, and not more than 6 inches from wall surfaces. Lap splice securely.
E. Securely fix carrying channels to hangers to prevent turning or twisting and to transmit full load to hangers.
F. Place furring channels perpendicular to carrying channels, not more than 2 inches from perimeter walls, and rigidly secure. Lap splices securely.

END OF SECTION
SECTION 09 3000 - TILING

PART 1  GENERAL

1.01  SECTION INCLUDES

A. Tile for floor applications.
B. Tile for wall applications.
C. Coated glass mat backer board as tile substrate.
D. Non-ceramic trim.

1.02  RELATED REQUIREMENTS

A. Section 07 9200 - Joint Sealants: Sealing joints between tile work and adjacent construction and fixtures.

1.03  REFERENCE STANDARDS

E. ANSI A108.4 - American National Standard Specifications for Installation of Ceramic Tile with Organic Adhesives or Water Cleanable Tile-Setting Epoxy Adhesive; 2009 (Revised).
N. ANSI A118.4 - American National Standard Specifications for Modified Dry-Set Cement Mortar; 2012 (Revised).

1.04 SUBMITTALS
A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide manufacturers’ data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.
C. Manufacturer’s Certificate: Certify that products meet or exceed specified requirements.
D. Maintenance Data: Include recommended cleaning methods, cleaning materials, and stain removal methods.

1.05 QUALITY ASSURANCE
A. Maintain one copy of and ANSI A108/A118/A136.1 and TCNA (HB) on site.
B. Manufacturer Qualifications: Company specializing in manufacturing the types of products specified in this section, with minimum five years of documented experience.
C. Installer Qualifications: Company specializing in performing tile installation, with minimum of five years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING
A. Protect adhesives from freezing or overheating in accordance with manufacturer’s instructions.

1.07 FIELD CONDITIONS
A. Do not install solvent-based products in an unventilated environment.
B. Maintain ambient and substrate temperature of 50 degrees F during installation of mortar materials.

PART 2 PRODUCTS
2.01 TILE
A. Manufacturers:
   4. Substitutions: See Section 01 6000 - Product Requirements.
B. Porcelain Tile, Type F-1:
   1. Size: 12” by 24” inch, nominal.
   2. Thickness: 3/8 inch.
   3. Edges: Cushioned.
   4. Surface Finish: Matte Finish at Floor and polished finish on walls.
   5. Color(s): To be selected by Architect from manufacturer’s full range.
   6. Pattern: As indicated on drawings.
   7. Trim Units: Matching bullnose shapes in sizes coordinated with field tile.
   8. Basis of Design:
      a. Field Tile:
         1) (F-1) Florida Tile, “Rhyme”, 12 x 24 tile.
C. Glass Tile, Type F-1A:
   1. Large Format Tiles:
      a. Basis of Design:
         1) Glazzio Tile, “Crystal Wave” - Eclipse (C06-W)
      b. Size: 4” by 12” inch, nominal.
      c. Thickness: 5/16 inch.
   2. Edges: Square.
3. Color(s): To be selected by Architect from manufacturer's full range.
4. Pattern: As indicated on drawings.

2.02 TRIM AND ACCESSORIES

A. Tile Accessories:
   1. Applications:
      a. Bullnose tile at top and sides of tile as shown on drawings.
         1) Manufacturer's
            (a) Same as tile manufacturer

B. Trim: Satin natural anodized extruded aluminum, style and dimensions as indicated on drawings, for setting using tile mortar or adhesive.
   1. Applications:
      a. Open edges of wall tile.
      b. Open edges of floor tile.
      c. Wall corners, outside and inside.
      d. Borders and other trim as indicated on drawings.
   2. Manufacturers:
         1) Edge of Backsplash: RONDEC-DB or QUADEC.
      b. Substitutions: See Section 01 6000 - Product Requirements.

2.03 SETTING MATERIALS

   1. Applications: Use this type of bond coat where indicated and where no other type of bond coat is indicated.
   2. Products:
      a. ARDEX Engineered Cements; ARDEX N 23 MICROTEC: www.ardexamericas.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

2.04 GROUTS

A. Manufacturers:
   1. ARDEX Engineered Cements: www.ardexamericas.com/#sle.
   4. Substitutions: See Section 01 6000 - Product Requirements.

B. Standard Grout: ANSI A118.6 standard cement grout.
   1. Applications: Use this type of grout where indicated and where no other type of grout is indicated.
   2. Use sanded grout for joints 1/8 inch wide and larger; use unsanded grout for joints less than 1/8 inch wide.
   3. Color(s): As selected by Architect from manufacturer's full line.
   4. Products:
      b. LATICRETE International, Inc; LATICRETE 1500 Sanded Grout: www.laticrete.com/#sle.
      c. Merkrete, by Parex USA, Inc; Merkrete Duracolor Non-Sanded Grout: www.merkrete.com/#sle.
      d. Substitutions: See Section 01 6000 - Product Requirements.

C. Epoxy Grout: ANSI A118.3 chemical resistant and water-cleanable epoxy grout.
   1. Applications: At all restroom applications.
   2. Color(s): As selected by Architect from manufacturer's full line.
3. Products:
   a. ARDEX Engineered Cements; ARDEX WA:  www.ardexamericas.com/#sle.
   b. Custom Building Products; CEG-IG 100% Solids Industrial Grade Epoxy Grout: www.custombuildingproducts.com/#sle.
   d. Merkrete, by Parex USA, Inc; Merkrete Pro Epoxy:  www.merkrete.com/#sle.

2.05 MAINTENANCE MATERIALS
A. Grout Sealer: Liquid-applied, moisture and stain protection for existing or new Portland cement grout.
   1. Composition: Water-based colorless silicone.
   2. Products:
      a. Merkrete, by Parex USA, Inc; Merkrete Grout Sealer:  www.merkrete.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive tile.
B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive tile.
C. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of setting materials to sub-floor surfaces.
D. Verify that concrete sub-floor surfaces are ready for tile installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by tile manufacturer and setting materials manufacturer.
E. Verify that required floor-mounted utilities are in correct location.

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

3.03 INSTALLATION - GENERAL
A. Install tile and grout in accordance with applicable requirements of ANSI A108.1a through ANSI A108.13, manufacturer’s instructions, and TCNA (HB) recommendations.
B. Lay tile to pattern indicated.  Do not interrupt tile pattern through openings.
C. Cut and fit tile to penetrations through tile, leaving sealant joint space.  Form corners and bases neatly.  Align floor joints.
D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.
E. Form internal angles square and external angles bullnosed.
F. Install non-ceramic trim in accordance with manufacturer’s instructions.
G. Sound tile after setting.  Replace hollow sounding units.
H. Keep control and expansion joints free of mortar, grout, and adhesive.
I. Prior to grouting, allow installation to completely cure; minimum of 48 hours.
J. Grout tile joints unless otherwise indicated.  Use standard grout unless otherwise indicated.
K. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.
3.04 INSTALLATION - FLOORS - THIN-SET METHODS
   A. Over interior concrete substrates, install in accordance with TCNA (HB) Method F113, dry-set or latex-Portland cement bond coat, with standard grout, unless otherwise indicated.

3.05 INSTALLATION - WALL TILE
   A. Over gypsum wallboard on wood or metal studs install in accordance with TCNA (HB) Method W243, thin-set with dry-set or latex-Portland cement bond coat, unless otherwise indicated.

3.06 CLEANING
   A. Clean tile and grout surfaces.

3.07 PROTECTION
   A. Do not permit traffic over finished floor surface for 4 days after installation.

   END OF SECTION
PART 1 - GENERAL

1.01 1.2 SUMMARY

1.02 A. SECTION INCLUDES
   A. 1. Acoustical metal ceiling panels
   B. 2. Exposed grid suspension system
   C. 3. Wire hangers, fasteners, main runners, cross tees, and wall angle moldings
   D. 4. Perimeter Trim

1.03 1.11 WARRANTY
   A. A. Acoustical Panel: Submit a written warranty executed by the manufacturer, agreeing to repair or replace panels that fail within the warranty period. Failures include, but are not limited to the following:
      1. 1. Acoustical Panels: Sagging and warping
      2. 2. Grid System: Rusting and manufacturer's defects
   B. B. Warranty Period:
      1. 1. Acoustical Metal panels: One (1) year from date of substantial completion
      2. 2. Grid: Ten (10) years from date of substantial completion
   C. C. The Warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.

1.04 1.12 MAINTENANCE
   A. A. Extra Materials: Deliver extra materials to Owner. Furnish extra materials described below that match products installed. Packaged with protective covering for storage and identified with appropriate labels.
      1. 1. Acoustical Metal Ceiling Units: Furnish quality of full-size units equal to 5.0 percent of amount installed.
      2. 2. Exposed Suspension System Components: Furnish quantity of each exposed suspension component equal to 2.0 percent of amount installed.

PART 2 - PRODUCTS

2.01 2.1 BASIS OF DESIGN
   A. A. Metal Ceiling Panels Type C-3:
      1. Armstrong World Industries, Inc.
   B. B. Suspension Systems:
      1. 1. Armstrong World Industries, Inc.
   C. C. Aluminum Custom Trims:
      1. 1. Armstrong World Industries, Inc.

2.02 2.2.1 ACOUSTICAL CEILING UNITS
   A. A. Acoustical Panels Type AMP
      1. 1. Acoustical Panels Type AMP-1:
         a. a. Surface Texture: Smooth
         b. b. Composition: Metal
         c. c. Color: Brushalume
         d. d. Size: 24 in x 48 in
         e. e. Edge Profile: Square 15/16 in for interface with PRELUDE XL 15/16" Exposed Tee grid.
         f. f. Perforation Option: Custom
         g. g. Flame Spread: ASTM E 1264; Class A.
      2. 2. Metal Panel Accessories:
a. 1. 7131 - Torsion Spring Perimeter Trim (Formed)
b. 2. 7301TS - Prelude XL 2' HD Main Beam slotted for Torsion Spring
c. 3. XL7341 - 4ft Cross Tee
d. 4. XL7341TS - Prelude XL 4' Cross Tee slotted for Torsion Spring
e. 5. XL8320 - 2ft Cross Tee

2.03 2.3.1 METAL SUSPENSION SYSTEMS
A. A. Components:
B. Main beams and cross tees, base metal and end detail, fabricated from commercial quality hot
dipped galvanized steel complying with ASTM A 653. Main beams and cross tees are
double-web steel construction with type exposed flange design. Exposed surfaces chemically
cleansed, capping prefinished galvanized steel in baked polyester paint. Main beams and cross
tees shall have rotary stitching.
C. B. Attachment Devices:
1. Size for five times design load indicated in ASTM C 635, Table 1, Direct Hung unless
otherwise indicated.
D. C. Wire for Hangers and Ties:
1. ASTM A 641, Class 1 zinc coating, soft annealed, with a yield stress load of at least time
three design load, but not less than 12 gauge.
E. D. Edge Moldings and Trim: Torsion Spring Perimeter Trim (formed).

PART 3 - EXECUTION
3.01 3.1 EXAMINATION
A. A. Do not proceed with installation until all wet work such as concrete, terrazzo, plastering and
painting has been completed and thoroughly dried out, unless expressly permitted by
manufacturer's printed recommendations. (Exception: HumiGuard Max Ceilings)

3.02 3.3 INSTALLATION
A. A. Follow manufacturer installation instructions
B. B. Install suspension system and panels in accordance with the manufacturer's instructions, and
in compliance with ASTM C 636 and with the authorities having jurisdiction.
C. C. Install wall moldings at intersection of suspended ceiling and vertical surfaces. Miter corners
where wall moldings intersect or install corner caps.
D. D. For reveal edge panels: Cut and reveal or rabbet edges of ceiling panels at border areas
and vertical surfaces.
E. E. Install acoustical panels in coordination with suspended system, with edges resting on
flanges of main runner and cross tees. Cut and fit panels neatly against abutting surfaces.
Support edges by wall moldings.
F. F. Install acoustical panels in coordination with suspended system, with edges resting on
flanges of main runner and cross tees. Cut and fit panels neatly against abutting surfaces.
Support edges by wall moldings.
G. 3.4 ADJUSTING AND CLEANING
H. A. Replace damaged and broken panels.
I. Clean exposed surfaces of ceilings panels, including trim, edge mouldings, and suspension members. Comply with manufacturer's instructions for cleaning and touch up of minor finish damage. Remove and replace work that cannot be successful cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION
PART 1 GENERAL
1.01 SECTION INCLUDES
   A. Suspended metal grid ceiling system.
   B. Acoustical units.
   C. Supplementary acoustical insulation above ceiling.

1.02 REFERENCE STANDARDS
   B. ASTM E1264 - Standard Classification for Acoustical Ceiling Products; 2014.

1.03 FIELD CONDITIONS
   A. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

PART 2 PRODUCTS
2.01 MANUFACTURERS
   A. Acoustic Tiles/Panels:
      1. USG; Radar R2310 Fissured, fire rated: www.usg.com/#sle.
      2. Substitutions: See Section 01 6000 - Product Requirements.
   B. Suspension Systems:
      1. Same as for acoustical units.

2.02 ACOUSTICAL UNITS
   A. Acoustical Units - General: ASTM E1264, Class A.
      1. Units for Installation in Fire-Rated Suspension System: Listed and classified for the fire-resistive assembly as part of suspension system.
   B. Acoustical Panels Type C-1: Painted mineral fiber, ASTM E1264 Type III, with the following characteristics:
      1. Size: 24 by 24 inches.
      2. Thickness: 3/4 inches.
      3. Composition: Wet felted.
      4. Edge: Square.
      5. Surface Color: White.
      7. Suspension System: Exposed grid.
      8. Products:
         a. USG Radar 2310.
         b. Substitutions: See Section 01 6000 - Product Requirements.
   C. Acoustical Panels Type [C-2]: Painted mineral fiber, ASTM E1264 Type III, with the following characteristic:
      1. Size: 24 by 24 inches.
      2. Thickness: 3/4 inches.
      3. Composition: Wet felted.
      4. Edge: Square.
      5. Surface Color: White.
      7. Suspension System: Exposed grid.
      8. Products:
2.03 SUSPENSION SYSTEM(S)
   A. Metal Suspension Systems - General: Complying with ASTM C635/C635M; die cut and
      interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down
      clips as required.

2.04 ACCESSORIES
   A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic
      requirements, and ceiling system flatness requirement specified.
   B. Perimeter Moldings: Same material and finish as grid.
      1. Perimeter moldings as follows:
         a. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face
            of grid.
         b. At Concealed Grid: Provide exposed L-shaped molding.
         c. At Clouds (Alternate No. 3) provide USG Compasso Suspension trim or equivalent.
   C. Acoustical Insulation: Specified in Section 07 2100.
      1. Thickness: 2 inch.
      2. Size: To fit acoustical suspension system.
   D. Acoustical Sealant For Perimeter Moldings: Non-hardening, non-skinning, for use in
      conjunction with suspended ceiling system.

PART 3 EXECUTION
3.01 INSTALLATION - SUSPENSION SYSTEM
   A. Rigidly secure system, including integral mechanical and electrical components, for maximum
      deflection of 1:360.
   B. Locate system on room axis according to reflected plan.
   C. Install after major above-ceiling work is complete. Coordinate the location of hangers with other
      work.
   D. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where
      carrying members are spliced, avoid visible displacement of face plane of adjacent members.
   E. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest
      affected hangers and related carrying channels to span the extra distance.
   F. Do not support components on main runners or cross runners if weight causes total dead load
      to exceed deflection capability.
   G. Support fixture loads using supplementary hangers located within 6 inches of each corner, or
      support components independently.
   H. Do not eccentrically load system or induce rotation of runners.
   I. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with
      other interruptions.
      1. Install in bed of acoustical sealant.
      2. Use longest practical lengths.
      3. Overlap and rivet corners.

3.02 INSTALLATION - ACOUSTICAL UNITS
   A. Install acoustical units in accordance with manufacturer's instructions.
   B. Fit acoustical units in place, free from damaged edges or other defects detrimental to
      appearance and function.
   C. Fit border trim neatly against abutting surfaces.
   D. Install units after above-ceiling work is complete.
   E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
   F. Cutting Acoustical Units:
1. Make field cut edges of same profile as factory edges.

3.03 TOLERANCES

A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.
B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Resilient vinyl plank flooring.
   B. Resilient vinyl tile flooring.
   C. Resilient base.
   D. Installation accessories.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
   C. Verification Samples: Submit two samples, 3 by 3 inch in size illustrating color and pattern for each resilient flooring product specified.

1.04 DELIVERY, STORAGE, AND HANDLING
   A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.
   B. Store all materials off of the floor in an acclimatized, weather-tight space.
   C. Maintain temperature in storage area between 55 degrees F and 90 degrees F.
   D. Protect roll materials from damage by storing on end.
   E. Do not double stack pallets.

1.05 FIELD CONDITIONS
   A. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

PART 2 PRODUCTS

2.01 TILE FLOORING
   A. Luxury Vinyl Tile Plank Flooring: High molecular weight polymerized vinyl wear layer on high strength vinyl backing.
      1. Basis of Design:
         a. Karndean Van Gogh
         b. Substitutions: See Section 01 6000 - Product Requirements.
      2. Plank Size: 48" x 7" (1420 mm x 225 mm)
      3. Wear layer thickness: 0.5mm (20 mils)
      4. Classification: ASTM F1700, Class III Type B
      5. Warranty: 15 years
      7. Abrasion Resistance: ASTM D3884 - 115,000 cycles
      8. Static Load: 1,000 PSI
      9. Color: As selected by Architect from manufacturer’s full line.
2.02 RESILIENT BASE

A. Resilient Base: ASTM F1861, Type TS rubber, vulcanized thermoset; top set Style B, Cove.
   1. Manufacturers:
      d. Substitutions: See Section 01 6000 - Product Requirements.

2. Height: 4 inch.
3. Thickness: 0.125 inch.
5. Length: Roll.
6. Color: To be selected by Architect from manufacturer's full range.
7. Accessories: Premolded external corners and internal corners.

2.03 ACCESSORIES

A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.
B. Adhesives: Waterproof; types recommended by flooring manufacturer.
C. Moldings, Transition and Edge Strips: Same material as resilient base. Profiles as shown on drawings, appropriate for conditions or required for a complete installation.
   1. Profiles: T-transition, ramp reducers or edge as appropriate for conditions.
D. Sealer and Wax: Types recommended by flooring manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.
B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive resilient base.
C. Cementitious Sub-floor Surfaces: Verify that substrates are dry enough and ready for resilient flooring installation by testing for moisture and pH.
   1. Test in accordance with ASTM F710.
   2. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.
D. Verify that required floor-mounted utilities are in correct location.

3.02 PREPARATION

A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
B. Remove sub-floor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with sub-floor filler to achieve smooth, flat, hard surface.
C. Prohibit traffic until filler is fully cured.
D. Clean substrate.

3.03 INSTALLATION - GENERAL

A. Starting installation constitutes acceptance of sub-floor conditions.
B. Install in accordance with manufacturer's written instructions.
C. Spread only enough adhesive to permit installation of materials before initial set.
D. Fit joints and butt seams tightly.
E. Set flooring in place, press with heavy roller to attain full adhesion.
F. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.
G. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
   1. Resilient Strips: Attach to substrate using adhesive.
H. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

3.04 INSTALLATION - TILE FLOORING
A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless otherwise indicated in manufacturer’s installation instructions.

3.05 INSTALLATION - RESILIENT BASE
A. Fit joints tightly and make vertical. Maintain minimum dimension of 36” inches between joints.
B. Miter internal corners. At external corners, use premolded units. At exposed ends, use premolded units.
C. Install base on solid backing. Bond tightly to wall and floor surfaces.
D. Scribe and fit to door frames and other interruptions.

3.06 CLEANING
A. Remove excess adhesive from floor, base, and wall surfaces without damage.
B. Clean in accordance with manufacturer's written instructions.

3.07 PROTECTION
A. Prohibit traffic on resilient flooring for 48 hours after installation.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Surface preparation.
   B. Wall covering.

1.02 RELATED REQUIREMENTS
   A. Section 09 9123 - Interior Painting: Preparation and priming of substrate surfaces.

1.03 REFERENCE STANDARDS

1.04 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on wall covering and adhesive.
   C. Samples: Submit two samples of wall covering, 12 by 12 inch in size illustrating color, finish, and texture.
   D. Manufacturer's Installation Instructions: Indicate special procedures.
   E. Maintenance Data: Submit data on cleaning, touch-up, and repair of covered surfaces.

1.05 QUALITY ASSURANCE
   A. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of experience.

1.06 DELIVERY, STORAGE, AND HANDLING
   A. Inspect roll materials at arrival on site, to verify acceptability.
   B. Protect packaged adhesive from temperature cycling and cold temperatures.
   C. Do not store roll goods on end.

1.07 FIELD CONDITIONS
   A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the adhesive or wall covering product manufacturer.
   B. Maintain these conditions 24 hours before, during, and after installation of adhesive and wall covering.

PART 2 PRODUCTS

2.01 MANUFACTURERS
   A. Basis of Design - Wall Coverings: Wall mural on wall covering as manufactured by "Murals Your Way", Hopkins, MN. (888) 235-1318. Other manufacturers will be considered upon submittal of information and approval by Architect, through Division 01 requirements.
   1. Wall Mural
      a. Wall Coverings
         1) General Requirements:
            (a) Surface Burning Characteristics: Flame spread/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E84.
         2) Wall Covering - Type ___: Fabric-backed vinyl roll stock.
            (a) Total Weight: 15 oz/sq yd.
            (b) Backing: Non-woven, synthetic fabric.
            (c) Color: To be selected by Architect.
            (d) Pattern: To be selected by Architect.
            (e) Surface Texture: Smooth.
            (f) Overcoating: Manufacturer's standard coating for stain resistance.
2.02 MATERIALS

A. Requirements of Wall Coverings:
   1. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E84.

B. Mural Wall Covering:
   1. Material: Fabric backed vinyl, non-woven wall covering
   2. Color: To be determined by Architect
   3. Weight: 15 oz/lineal yard
   4. Surface: Smooth
   5. Size: Full wall height and width
   6. Fade resistance: provide 20 year indoor fade resistance
   7. Vinyl wall covering protection: Apply manufacturer's recommended topcoat of water based polyurethane coating.

C. Adhesive: Type recommended by wall covering manufacturer to suit application to substrate.

D. Termination Trim: Extruded plastic, clear.

E. Substrate Filler: As recommended by adhesive and wall covering manufacturers; compatible with substrate.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate surfaces are prime painted and ready to receive work, and conform to requirements of the wall covering manufacturer.

B. Verify flatness tolerance of surfaces does not vary more than 1/8 inch in 10 feet nor vary at a rate greater than 1/16 inch/ft.

3.02 PREPARATION

A. Fill cracks in substrate and smooth irregularities with filler; sand smooth.

B. Surface Appurtenances: Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.

C. Surfaces: Correct defects and clean surfaces that affect work of this section. Remove existing coatings that exhibit loose surface defects.

D. Vacuum clean surfaces free of loose particles.

3.03 INSTALLATION

A. Apply adhesive and wall covering in accordance with manufacturer's instructions.

B. Apply adhesive to wall surface immediately prior to application of wall covering.

C. Apply wall covering smooth, without wrinkles, gaps or overlaps. Eliminate air pockets and ensure full bond to substrate surface.

D. Butt edges tightly.

E. Install wall covering before installation of bases and items attached to or spaced slightly from wall surface.

F. Install termination trim, if applicable.
3.04 CLEANING
   A. Clean wall coverings of excess adhesive, dust, dirt, and other contaminants.
   B. Reinstall wall plates and accessories removed prior to work of this section.

3.05 PROTECTION
   A. Do not permit construction activities at or near finished wall covering areas.

3.06 SCHEDULES
   A. Provide wall paneling and wall covering in locations indicated on the Drawings.

END OF SECTION
SECTION 09 9123 - INTERIOR PAINTING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.
B. Field application of paints, stains, and varnishes.
C. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
   1. Mechanical and Electrical:
      a. In finished areas, paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.
D. Do Not Paint or Finish the Following Items:
   1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
   2. Items indicated to receive other finishes.
   3. Items indicated to remain unfinished.
   4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
   5. Stainless steel, anodized aluminum, bronze, terne coated stainless steel, and lead items.
   6. Floors, unless specifically indicated.
   7. Ceramic and other tiles.
   8. Glass.
   9. Acoustical materials, unless specifically indicated.
10. Concealed pipes, ducts, and conduits.

1.02 REFERENCE STANDARDS

D. SSPC-SP 1 - Solvent Cleaning; 2015, with Editorial Revision (2016).

1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide complete list of products to be used, with the following information for each:
   1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
   2. MPI product number (e.g. MPI #47).
   3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
C. Samples: Submit two painted samples, illustrating selected colors and textures for each color and system selected with specified coats cascaded. Submit on tempered hardboard, 8 1/2 by 11 inch in size.
D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 6000 - Product Requirements, for additional provisions.
2. Extra Paint and Finish Materials: 1 gallon of each color; from the same product run, store where directed.
3. Label each container with color in addition to the manufacturer's label.

1.04 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum ten years experience.
B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum three years experience.

1.05 MOCK-UP
A. See Section 01 4000 - Quality Requirements, for general requirements for mock-up.
B. Provide panel, 3 feet long by 3 feet wide, illustrating paint color, texture, and finish.
C. Mock-up may remain as part of the work.

1.06 DELIVERY, STORAGE, AND HANDLING
A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.07 FIELD CONDITIONS
A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
C. Minimum Application Temperatures for Paints: 50 degrees F for interiors unless required otherwise by manufacturer's instructions.
D. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Provide paints and finishes from the same manufacturer to the greatest extent possible.
   1. Substitution of MPI-approved products by a different manufacturer is preferred over substitution of unapproved products by the same manufacturer.
B. Paints:
C. Transparent Finishes:
   2. PPG Paints Deft Interior Clears/Polyurethanes: www.ppgpaints.com/#sle.
D. Stains:
E. Substitutions: See Section 01 6000 - Product Requirements.
2.02 PAINTS AND FINISHES - GENERAL

A. Paints and Finishes: Ready mixed, unless intended to be a field-catalyzed paint.
1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
3. Supply each paint material in quantity required to complete entire project's work from a single production run.
4. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

B. Volatile Organic Compound (VOC) Content:
1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
   b. Architectural coatings VOC limits of the State in which the Project is located.
2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.

C. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.

D. Colors: As indicated in Color Schedule.
1. Allow for colors as necessary and called for in Schedule at end of this Specification.
2. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling they are mounted on/under.

2.03 PAINT SYSTEMS - INTERIOR

A. Interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board.
1. Two top coats and one coat primer.
2. Top Coat(s): Interior Latex.
3. Top Coat Sheen:
   a. Eggshell: MPI gloss level 3; use this sheen at ceilings.
   b. Semi-Gloss: MPI gloss level 5; use this sheen at walls, metal doors, door and window frames and railings.
4. Primer: As recommended by top coat manufacturer for specific substrate.

B. Paint I-TR-C - Transparent Finish on Concrete Floors.
1. Sealer: Water Based Sealer for Concrete Floors; MPI #99.
   a. Products:
      1) Behr Premium Wet-Look Sealer High Gloss [No. 985]. (MPI #99)
      2) Behr Premium Wet-Look Sealer Low-Lustre [No. 986]. (MPI #99)
      3) PPG Paints Perma-Crete Plex-Seal WB Interior/Exterior Clear Sealer Stain, 4-6200. (MPI #99)
2. Sealer Sheen:
   a. Eggshell: MPI gloss level 3; use this sheen at all locations.

2.04 PRIMERS

A. Primers: Provide the following unless other primer is required or recommended by manufacturer of top coats.
1. Interior Institutional Low Odor/VOC Primer Sealer.
2. Anti-Corrosive Alkyd Primer for Metal.
3. Interior/Exterior Quick Dry Alkyd Primer for Metal.
4. Alkyd Primer for Galvanized Metal.
2.05 ACCESSORY MATERIALS
   A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
   B. Patching Material: Latex filler.
   C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Do not begin application of paints and finishes until substrates have been properly prepared.
   B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
   C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
   D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   E. Test shop-applied primer for compatibility with subsequent cover materials.
   F. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
      1. Gypsum Wallboard: 12 percent.
      2. Interior Wood: 15 percent, measured in accordance with ASTM D4442.
      3. Concrete Floors and Traffic Surfaces: 8 percent.

3.02 PREPARATION
   A. Clean surfaces thoroughly and correct defects prior to application.
   B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
   C. Remove surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
   D. Seal surfaces that might cause bleed through or staining of topcoat.
   E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
   F. Concrete Floors and Traffic Surfaces: Remove contamination, acid etch, and rinse floors with clear water. Verify required acid-alkali balance is achieved. Allow to dry.
   G. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.
   H. Wood Surfaces to Receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats. Prime concealed surfaces with gloss varnish reduced 25 percent with thinner.
   I. Existing Wood Surfaces to be refinished: Sand and remove existing polyurethane finish as necessary to allow wood substrate to accept stain finish. Wipe off dust and grit prior to applying stain. Provide mock-up of stain application for approval prior to start of refinishing existing wood. Seal wood stain with polyurethane clear finish.
   J. Wood Doors to be Field-Finished: Seal wood door top and bottom edge surfaces with clear sealer.
   K. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

3.03 APPLICATION
   A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
   B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
C. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.
D. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
E. Apply each coat to uniform appearance in thicknesses specified by manufacturer.
F. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply as many coats as necessary for complete hide.
G. Sand wood and metal surfaces lightly between coats to achieve required finish.
H. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
I. Wood to Receive Transparent Finishes: Tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.
J. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 CLEANING
A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.05 PROTECTION
A. Protect finishes until completion of project.
B. Touch-up damaged finishes after Substantial Completion.

3.06 COLOR SCHEDULE
A. WF-1 walls on the finish plan will utilize paint color #1, WF-2 accent walls will be selected from the remaining colors below:
   1. Paint Color #1: Sherwin Williams, SW6106, Kilim Beige.
   2. Paint Color #2: Sherwin Williams, SW7024, Functional Grey.
   3. Paint Color #3: Sherwin Williams, SW6501, Maniton Blue
   4. Paint Color #4: Sherwin Williams, SW6509, Georgian Bay.
   5. Paint Color #5: Sherwin Williams, SW6165, Sage Green.
   6. Paint Color #6: Sherwin Williams, SW6258, Tricorn Black
   7. Paint Color #7: to be selected by architect
   8. Paint Color #8: to be selected by architect
   9. Paint Color #9: to be selected by architect
B. Stain Color #1: Sherwin Williams, Wood Classics Interior Oil Stain, Too match existing doors.

END OF SECTION
SECTION 10 1101 - VISUAL DISPLAY BOARDS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Markerboards and Tackboards.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

PART 2 PRODUCTS

2.01 MANUFACTURERS
   A. Visual Display Boards:
      1. ADP Lemco, Inc:  www.adplemco.com/#sle.
      5. K-Pro Specialty Products.
      6. Substitutions:  See Section 01 6000 - Product Requirements.

2.02 VISUAL DISPLAY BOARDS
   A. Markerboards:  Porcelain enamel on steel, laminated to core.
      1. Basis of Design: K-pro Specialty Products, Horizontal Slider (4" depth), 2 sliding panels
      3. Steel Face Sheet Thickness:  24 gage, 0.0239 inch.
      5. Backing:  Aluminum foil, laminated to core.
      6. Size: As indicated on drawings.
      7. Frame:  Extruded aluminum, with concealed fasteners.

2.03 MATERIALS
   A. Porcelain Enameled Steel Sheet:  ASTM A424/A424M, Type I, Commercial Steel, with fired-on vitreous finish.
   B. Particleboard:  ANSI A208.1; wood chips, set with waterproof resin binder, sanded faces.
   C. Foil Backing:  Aluminum foil sheet, 0.005 inch thick.

2.04 ACCESSORIES
   A. Chalk Tray:  Aluminum, manufacturer's standard profile, one piece full length of chalkboard, molded ends, concealed fasteners, same finish as frame.
   B. Mounting Brackets:  Concealed.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify that field measurements are as indicated.
   B. Verify that internal wall blocking is ready to receive work and positioning dimensions are as indicated on shop drawings.
   C. Verify flat wall surface for frameless adhesive-applied boards.

3.02 INSTALLATION
   A. Install boards in accordance with manufacturer's instructions.
B. Secure units level and plumb.

3.03 CLEANING
A. Clean board surfaces in accordance with manufacturer's instructions.

END OF SECTION
SECTION 10 2600 - WALL AND DOOR PROTECTION

PART 1 GENERAL
1.01 SECTION INCLUDES
   A. Corner guards.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Product Data: Indicate physical dimensions, features, wall mounting brackets with mounted
      measurements, anchorage details, and rough-in measurements.
   C. Shop Drawings: Include plans, elevation, sections, and attachment details. Show design and
      spacing of supports for protective corridor handrails, required to withstand structural loads.
   D. Samples: Submit samples illustrating component design, configurations, joinery, color and
      finish.
   E. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been
      completed in Owner's name and registered with manufacturer.

1.04 WARRANTY
   A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
   B. Correct defective Work within a one year period after Date of Substantial Completion.
   C. Provide five year manufacturer and installer warranty for metal crash rails.

PART 2 PRODUCTS
2.01 MANUFACTURERS
   A. Corner Guards:
      1. Inpro; 160 series.
      2. Substitutions: See Section 01 6000 - Product Requirements.

2.02 PRODUCT TYPES
   A. Corner Guards - Surface Mounted:
      1. Material: High impact vinyl with full height extruded aluminum retainer.
      2. Material: Polyethylene terephthalate (PET or PETG); PVC-free with full height extruded
         aluminum retainer.
      3. Surface Burning Characteristics: Provide assemblies with flame spread index of 25 or less
         and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
      4. Width of Wings: 2 inches.
      5. Corner: Square.
      6. Color: As selected from manufacturer's standard colors.
      7. Length: One piece.
      8. Preformed end caps.

2.03 FABRICATION
   A. Fabricate components with tight joints, corners and seams.

PART 3 EXECUTION
3.01 EXAMINATION
   A. Verify that rough openings, concealed blocking, and anchors are correctly sized and located.
   B. Verify that field measurements are as indicated on drawings.

3.02 INSTALLATION
   A. Position corner guard 4 inches above finished floor to 48" inches high.
3.03 TOLERANCES
   A. Maximum Variation From Required Height: 1/4 inch.
   B. Maximum Variation From Level or Plane For Visible Length: 1/4 inch.

END OF SECTION
SECTION 10 2800 - TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1  GENERAL

1.01  SECTION INCLUDES
A. Commercial toilet accessories.

1.02  REFERENCE STANDARDS

PART 2  PRODUCTS

2.01  MANUFACTURERS
A. Commercial Toilet, Shower, and Bath Accessories:

2.02  MATERIALS
A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
B. Stainless Steel Tubing: ASTM A269/A269M, Grade TP304 or TP316.
C. Mirror Glass: Tempered safety glass, ASTM C1048; and ASTM C1036 Type I, Class 1, Quality Q2, with silvering as required.
D. Fasteners, Screws, and Bolts: Hot dip galvanized; tamper-proof; security type.

2.03  FINISHES
A. Stainless Steel: Satin finish, unless otherwise noted.

2.04  COMMERCIAL TOILET ACCESSORIES
A. Mirrors: Stainless steel framed, 1/4 inch thick tempered safety glass; ASTM C1048.
B. Grab Bars: Stainless steel, smooth surface.
   1. Standard Duty Grab Bars:
      a. Push/Pull Point Load: 250 pound-force, minimum.
      b. Dimensions: 1-1/4 inch outside diameter, minimum 0.05 inch wall thickness, concealed flange mounting, 1-1/2 inch clearance between wall and inside of grab bar.
      c. Finish: Satin.
      d. Length and Configuration: As indicated on drawings.

2.05  UTILITY ROOM ACCESSORIES
A. Combination Utility Shelf/Mop and Broom Holder: 0.05 inch thick stainless steel, Type 304, with 1/2 inch returned edges, 0.06 inch steel wall brackets.
   1. Mop/broom holders: Three spring-loaded rubber cam holders at shelf front.
   2. Length: 36 inches.

PART 3  EXECUTION

3.01  EXAMINATION
A. Verify existing conditions before starting work.
B. Verify exact location of accessories for installation.

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

A. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.
   1. Grab Bars: As indicated on drawings.

END OF SECTION
SECTION 12 2113 - HORIZONTAL LOUVER BLINDS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Horizontal slat louver blinds.
   B. Operating hardware.

1.02 RELATED REQUIREMENTS
   A. Section 06 1000 - Rough Carpentry: Concealed wood blocking for attachment of headrail brackets.

1.03 REFERENCE STANDARDS
   A. WCMA A100.1 - Safety of Window Covering Products; 2018.

1.04 ADMINISTRATIVE REQUIREMENTS
   A. Coordinate the placement of concealed blocking to support blinds. See Section 06 1000.

1.05 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data indicating physical and dimensional characteristics.
   C. Shop Drawings: Indicate opening sizes, tolerances required, method of attachment, clearances, and operation.
   D. Samples: Submit two samples, 8 inch long illustrating slat materials and finish, cord type and color.
   E. Manufacturer's Installation Instructions: Indicate special procedures.

1.06 QUALITY ASSURANCE
   A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

PART 2 PRODUCTS

2.01 MANUFACTURERS
   A. Horizontal Louver Blinds Without Side Guides:
      2. Levolor; Metal Blinds: www.levolor.com/commercial/#sle.
      3. SWFcontract, a division of Spring Window Fashions, LLC; ____:
         www.swfcontract.com/#sle.
      4. Substitutions: See Section 01 6000 - Product Requirements.

2.02 BLINDS WITHOUT SIDE GUIDES
   A. Description: Horizontal slat louvers hung from full-width headrail with full-width bottom rail.
   B. Manual Operation: Control of raising and lowering by cord with full range locking; blade angle adjustable by control wand.
   C. Metal Slats: Spring tempered pre-finished aluminum; square slat corners, with manufacturing burrs removed.
      1. Width: 1 inch.
      2. Thickness: 0.008 inch.
   D. Slat Support: Woven polypropylene cord, ladder configuration.
   E. Head Rail: Pre-finished, formed aluminum box, with end caps; internally fitted with hardware, pulleys, and bearings for operation; same depth as width of slats.
      1. Color: Same as slats.
   F. Bottom Rail: Pre-finished, formed steel; with end caps.
      1. Color: Same as headrail.
G. Lift Cord: Braided nylon; continuous loop; complying with WCMA A100.1.
   1. Free end weighted.
   2. Color: As selected by Architect.

H. Control Wand: Extruded aluminum; hexagonal shape.
   1. Non-removable type.
   2. Length of window opening height less 3 inch.

I. Headrail Attachment: Wall brackets.

J. Accessory Hardware: Type recommended by blind manufacturer.

2.03 FABRICATION
   A. Determine sizes by field measurement.
   B. Fabricate blinds to cover window frames completely.

PART 3 EXECUTION
3.01 EXAMINATION
   A. Verify that openings are ready to receive the work.

3.02 INSTALLATION
   A. Install blinds in accordance with manufacturer’s instructions.
   B. Secure in place with flush countersunk fasteners.

3.03 ADJUSTING
   A. Adjust blinds for smooth operation.

3.04 CLEANING
   A. Clean blind surfaces just prior to occupancy.

END OF SECTION