REQUEST FOR PROPOSAL – PROJECTS $0 to $200,000

1.0 NOTICE TO PROPOSERS

2.0 INSTRUCTIONS TO PROPOSERS

3.0 PROPOSAL

4.0 BID BOND

5.0 GENERAL CONDITIONS OF THE AGREEMENT

6.0 PROJECT SCOPE

PROJECT: **Kern Community College District**
Name of Project: Cerro Coso Community College Bookstore and Office Renovation
3000 College Heights Blvd, Ridgecrest, CA 93555.

KERN COMMUNITY COLLEGE DISTRICT

1.0 NOTICE TO PROPOSERS
Request for Proposal

DATE: October 2, 2023

TO: Qualified Proposers

FROM: Contact Name
Kern Community College District
2100 Chester Ave.
Bakersfield, CA 93301

PROJECT: **Cerro Coso Community College Bookstore and Office Renovation**

Kern Community College District

PROJECT DESCRIPTION: This project will include but not limited to: Renovation of Bookstore.

PROPOSAL DATE/TIME: **October 24, 2023, 2:00 pm**
PROPOSAL LOCATION: Cerro Coso Community College
3000 College Heights Blvd M & O Building
Ridgecrest, CA 93555
Attn: Christian Beltramo

BID SECURITY BOND: Required 10% Bid Bond if proposal is $45,000 or over.

PERFORMANCE AND PAYMENT BOND: Required if proposal is $25,000 or over.

PREVAILING WAGE PROJECT: Yes

CONTRACT DOCUMENTS AND SPECIFICATIONS MAY BE OBTAINED AT ADDRESS BELOW:
See contact person

CONTACT PERSON: Name: Christian Beltramo
Phone: 360-632-7710
E-mail: christian.beltramo@kccd.edu

MANDATORY SITE VISIT: **October 10, 2023 11:00 am**
Cerro Coso Community College M & O Building

2.0 INSTRUCTIONS TO PROPOSER

PART 1 - GENERAL

A. SECURING DOCUMENTS:

1. Contractors obtaining these plans and project manual for the purpose of submitting proposals for this work shall notify the District of their intentions, together with mailing address and telephone number, so they may be fully advised of any addenda to the construction documents being figured, or of any corrections, additions or omissions. Failure to so notify the District will make the contractor liable for the inclusion of all information according to the addenda in this contract, whether received or not.
2. Construction documents will not be issued to contractors who are not licensed to do business in the State of California, and the District will not consider or accept any proposal or proposals from such contractors.
3. Proposers shall have a generally recognized record for satisfactory execution of contracts of a similar size and character.

B. EXAMINATION OF PROPOSAL DOCUMENTS:

1. Each proposer shall examine the proposal documents carefully prior to date for receipt for proposals, shall make written request for interpretation and/or correction of any ambiguity, inconsistency or error therein which he may discover.
   Any interpretation and/or correction will be issued as an Addendum. Only a written interpretation and/or correction by Addenda shall be binding. No proposer shall rely upon any interpretation and/or correction given by any other method.
2. By submitting a proposal, the proposer implies that he has thoroughly investigated and is satisfied as to the character quality and quantities of work to be performed and materials to be furnished, and as to all the stipulations and requirements of the Contract and construction documents.
3. The Proposer shall diligently investigate existing conditions to ascertain work required and include all necessary cutting and patching and refinishing in his proposal. He shall provide for and exercise every precaution to protect the existing facilities against dust, dirt, water, trash, interruption of personnel activities, etc., due to operations under this Contract.
4. The District will not be responsible for any omissions, errors, etc., which may result from the Contractor's procurement of incomplete documents. It shall be the Contractor's responsibility to review and ascertain all of the required work, materials, etc., to be provided by him in performing all work as required and/or called for by the Contract Documents.

C. INTERPRETATION OF DOCUMENTS:

Should a proposer find discrepancies in, and/or omissions from the drawings and specifications, and/or should he be in doubt as to their meaning, he shall at once notify the District and should it be found necessary, a written addendum or clarification will be sent to all Proposers. The District will not be responsible for oral instructions.

1. Questions during proposals shall be submitted in writing to District’s designated office. Fax copies will be accepted.
2. No questions will be answered two (2) working days prior to proposal opening.
3. E-mail questions will be accepted.

D. PROPOSALS:

Proposals to receive consideration shall be made in accordance with the following instructions:

1. Proposals shall be made upon the proposal forms, properly executed and with all items filled out; numbers shall be stated both in writing and in figures. The complete proposal form shall be without alterations to content, form, and scope project; and the signatures of all persons

signing shall be in longhand and original wet signatures.

2. Alternate proposals will not be considered unless called for. No oral, telegraphic or telephonic proposals or modifications will be considered.
3. Before submitting proposals for this work, including RFP's, each proposer will be held to have examined the project premises and satisfied himself as to the existing conditions under which he will be obliged to operate, and that no changes will be made subsequently in this connection or in behalf of the Contractor for any error or negligence on his part, and he shall include in the proposal a sum to cover the cost of all items included in the contract and/or subsequent RFP's. No additional cost will be considered for price increases of any materials, labors, methods and/or procedures. The Contractor shall make allowances for any and all price changes occurring during this project from proposal through final completion and project acceptance by District.
4. Proposals will be delivered to the District at locations and time noted on "Bid Proposal" on or before the day and hour set for the opening of proposals. Proposal forms shall be enclosed in an envelope, and bear the title of work and the name of the proposer. It is the sole responsibility of the proposer to see that his proposal is received in proper time and location. Any proposal received after the schedule closing time for receipt of proposals will be returned to the proposer unopened.
5. Each proposer shall include with Proposal a Non-Collusion Affidavit, Prevailing Wage Compliance Certificate, required bond documents, and Certification of Workmen's Compensation to be executed by proposer and submitted with proposal. Form is included in "Bid Proposal" section. Form shall be fully executed and included with Proposal.
6. General Information:
    a. The District reserves the right to reject any or all proposals and/or waive any irregularities or informalities in any proposals and/or in the proposals process.
    b. The District has determined the general prevailing rate of per diem wages in the locality in which this work is to be performed for each craft or type of worker needed to execute this Contract. These rates are available on the Internet at the following address: www.dir.ca.gov/DLSR/statistics_research.html. Copies may be downloaded by the Contractor.
    c. The schedule of per diem wages is based upon a working day of eight hours. The rate for holiday and overtime work shall be at least time and one half.
    d. It shall be mandatory upon the Contractor to whom the Contract is awarded (Contractor), and upon any subcontractor under him, to pay not less than the specified rates to all workers employed by them in the execution of the Contract. It is Contractor's responsibility to determine any rate change which may have or will occur during the intervening period between each issuance of written rates by the Director of Industrial Relations.
    e. If awarded, proposal will be awarded to the lowest qualified proposal.

E. WITHDRAWAL OF PROPOSAL:

Proposals may be withdrawn by the Proposer prior to, but not later than, the time fixed for opening of proposals.

F. CORPORATION AS PROPOSER:

In case a proposal is submitted by a corporation, it shall be signed in the name of such corporation by a dully authorized officer or agent thereof.

G. SALES TAXES:

Sales taxes and any or all taxes and any other City, County, State, or Federal, except property taxes shall be included in the proposal. All proposals shall include all license fees, permit fees, and other fees to complete this project. See herein for permits, inspections, and assessments required for this project.

H. ADHERENCE:

No proposal will be considered that does not strictly adhere to all requirements of these instructions to Proposers.

I. PROPOSALS TO BE ACCEPTED BY DISTRICT:
The successful contractor shall be determined by the lowest total aggregate proposal of any or all proposals accepted by the District. The District reserves the right to select the proposals and/or aggregate of proposals it deems advantageous to the District.

J. AWARD OR REJECTION OF PROPOSALS:
The contract shall be awarded to the responsible proposer complying with these instructions. The District reserves the right to reject any and all proposals and to waive any informality or irregularity in proposals received. The award, if made, will be made within sixty (60) calendar days after the opening of the proposals.

K. EXAMINATION OF SITE:
The Proposer shall carefully examine the site of the contemplated work prior to submitting a proposal and shall have satisfied himself as to the existing conditions and the conditions under which he will be obligated to operate, and/or that will in any manner affect the work under the contract. No allowance will be made subsequently in this connection for items that could be reasonably be inferred to be required to complete project scope from a careful examination of site of the contemplated work.

L. ADDENDA AND BULLETINS:
Any addenda or bulletin items issued during the time of proposals shall be an integral part of the Contract Documents used by the Proposer for the preparation of his proposal, all items of addenda and/or bulletins shall be included in the Proposal and shall be made part of the Contract. Delivery of any Addenda or Bulletin in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, delivery by mail to the last known business address of the Contractor, or fax transmittal with telephone confirmation of complete receipt and or email will be considered to be proper service of said documents.

M. PERMITS, INSPECTIONS AND ASSESSMENTS, ETC.:
No building permits required for this project.
List of fees/assessments:
1. None.

N. FORMAL PROTEST OF PROPOSAL:
Any proposer submitting a proposal to the District or a third party may file a protest against District awarding contract on this project provided that protestor meet all of the following requirements:
1. Protest shall be submitted in writing and received on or before 72 hours after proposal opening time. Protest received after that shall not be recognized.
2. Protest of any proposals shall be filed and received by the Chief Financial Officer, Tom Burke, of the District by certified mail or by personal delivery during normal working hours, for administrative appeal.
3. Protest Submittal shall contain the following:
    a. The written proposal protest sets forth, in detail, all grounds for the proposal protest, including without limitation all facts, supporting documentation, legal authorities and argument in support of the grounds for the proposal protest; any matters not set forth in written proposal protest shall be deemed waived. All factual contentions must be supported by competent, admissible and creditable evidence.
    b. Name, address, phone number of person(s), company and/or organization that is making protest and name of project protest is for.
4. Any proposal protest not conforming to the foregoing shall be rejected by the Owner as invalid. Provided that a proposal protest is filed in conformity with the foregoing, the Owner's

Chief Financial Officer or such individual(s) as may be designated by the Chief Financial Officer, in his discretion, shall review and evaluate the basis of the proposal protest, and shall provide a written decision to the proposer submitting the proposal protest concurring with or denying the proposal protest. The written decision of the Chief Financial Officer shall be considered an administration appeal.

5. The protest decision by the Chief Financial Officer may be appealed to the Board of Trustees as a judicial appeal. This request must be filed with the Chief Financial Officer within 72 hours of receipt of the written decision of the Chief Financial Officer. Said appeal shall be accompanied with reason for appeal. The judicial appeal will be calendared within 31 days or less of receipt. The final decision of the Board of Trustees is not subject to arbitration, mediation or reconsideration/appeal.

O. STARTING WORK:

All documents shall be submitted and approved prior to starting work. Failure to provide complete information prior to days indicated shall be considered non-responsive, bid bond will be forfeited, and Contractor shall be declared in default.

1.	All insurance certificates -	10 days- Following award
2.	Proof of Contractor's/Subcontractor's license -	10 days -Following award
3.	Start work	5 days from notice to proceed and/or purchase order

PART 2 - PERFORMANCE OF WORK UNDER CONTRACT

A. SUPERVISION:

The General Contractor and all subcontractors engaged by general contractor will be required to designate one responsible on-site person with authority to receive directions and issue instructions for the orderly prosecution of the work.

B BUILDING CODE REQUIREMENTS:

1. All work performed under this Contract shall conform to the applicable portions and editions of the following current codes:
   a. California Building Code--CCR, T24 Parts 1-9.
   b. Public Health Code of the California State Department of Public Health and Local Health Department.
   c. California Occupational Safety and Health Act (CAL/OSHA).
   d. Rules and regulations of the State and Local Fire Marshals.
   e. Safety Orders of the Industrial Accident Commission, State of California.
   f. National Electric Code.
   g. Uniform Plumbing Code.
   h. All laws governing the employment of labor, posting of minimum wage rates, and accident prevention.
   i. American Disability Act, Federal law.
2. Requirements of enforcing authorities may supersede requirements of the above laws and regulations, and nothing in the Contract Documents shall be construed to permit work not conforming to applicable codes.
3. All of the above laws and regulations are as much a part of this contract as if they were incorporated in their entirety herein.

C. BID AND PAYMENT BOND:

General Contractor shall take out and maintain Bid and Labor/Payment bonds as indicated herein. The Bond requirement will vary based on the project proposal. The following criteria will determine Bond Requirements.

1. Bid Bond. Proposals shall be accompanied with a Bid security 10% of project amount for all contacts $45,000 or more.
2. Payment and Performance Bond. 100% of contract amount for all contracts $25,000 or more.

D. INSURANCE REQUIREMENTS:

1. Evidence of Insurance: Before the work is started, the Contractor shall forward to the District Certificates of Insurance and all the Contractual Liability coverage called for in the Contract Documents is in force, and specifically covers this particular Contract with the Owner, including the hold harmless requirements. In addition, the Certificates shall contain the following:
    1) "No cancellation of this policy or endorsement of same shall be effective until; until the thirtieth (30th) day following the receipt of notice of such cancellation of the policy or endorsements by the Owner."
    2) Certificates of Insurance shall contain transcripts from the policies authenticated by the proper office of the Insurer, evidencing in particular those insured, the extent of the insurance, the location of and the operations to which the insurance applies, the expiration date and the thirty (30) day NOTICE OF CANCELLATION CLAUSE.
    3) Acceptance of the Certificates of Insurance shall not relieve or decrease the liability of the Contractor.
    4) In the absence of contrary written instructions from the District, the Contractor at the Contractor's expense, shall obtain and maintain insurance at all times during the prosecution of the Contract, in companies and through agencies approved by the District, and with limits not less than those stated hereinafter.
    5) The Contractor shall not commence work under this Contract until he has obtained and paid for all insurance required herein and such insurance has been approved by the Owner, nor shall the Contractor allow any Subcontractor to commence work on his Subcontract until such insurance required of the Subcontractor has been so obtained and approved.
2. Provide the following items with evidence of insurance for all insurance policies for this project: The insurance required must be written by a Best Key Rating Guide "A" or better rated carrier admitted to write insurance in the state where the work is located at the time the policy is issued.
3. Indemnification
    a. To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the District and the Consultants and their employees from and against all claims, damages, losses and expenses, including attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss of expense is attributable to bodily injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting there from but only to the extent caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.
    b. In any and all claims against the District or the Consultants, or any of their employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or by any Subcontractor under workers compensation acts, disability benefit acts or other employee benefit acts.
    c. The obligations of the Contractor under this Paragraph shall not extend to the liability of the consultants or any of their agents or employees arising out of 1) The preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications, or, 2) the giving of or the failure to give directions or instructions by the consultants or any of their agents or employees, provided such giving or failure to give is the primary cause of the injury or damage.

d. The Contractor to name the District, the consultants, its agents and employees as additional insured on the Contractor's policy or policies of comprehensive general liability insurance. Such insurance shall include products and completed operations and contractual liability coverages, shall be primary and non-contributing with any insurance maintained by consultants, or its agents and employees, and shall provide that the Consultant be given thirty days, unqualified written notice prior to any cancellation thereof.

4. Worker's Compensation Insurance

Contractor shall provide, during the term of this Contract, Worker's Compensation Insurance for all of his employees engaged in Work under this Contract, on or at the site of the project, and in case any of his work is sublet, Contractor shall require the Subcontractor to provide Worker's Compensation Insurance for all of his employees. Any class of employee or employees not covered by a Subcontractor's insurance shall be covered by the Contractor's insurance. In case any class of employees engaged in work under this Contract, on or at the site of the project, is not protected under the Worker's Compensation laws, Contractor shall provide or cause a Subcontractor to provide, adequate insurance coverage for the protection of those employees not otherwise protected. Contractor shall file, with the Owner, certificates of insurance.

a) The Worker's Compensation Insurance shall be written by a company California admitted in the State of California, and shall be written for not less than the following, as established by the Owner, or greater if required by law.

b) Provide employer's liability endorsements:

1) State workers' compensation statutory benefits - policy limits of not less than $1,000,000.00.

2) Employer's Liability - policy limits of not less than $1,000,000.00.

5. Comprehensive General Liability Insurance

Commercial General Liability Insurance in Contractor's name, with personal injury limits indicated herein for combined Single Limit per occurrence coverage and annual aggregate. The policy is to be on a Comprehensive General Liability form and must include Contractual Liability endorsed to specifically cover an Indemnity Agreement contained in the Contract. The Comprehensive General Liability coverage may be provided on an "occurrence" form or a "claims made" basis. If the coverage is on a "claims made" basis, the policy shall provide for a non-cancelable 5 year extended reporting period.

a) The Contractor shall carry such public liability and property damage insurance that will protect the Contractor, Owner, Architect and Engineers from claims for damages for bodily injury, including accidental death, as well as for claims for property damages, which may arise from operations under the contract whether such operations be by the Contractor or by any Subcontractor or anyone directly or indirectly employed by either party. The limits of coverage shall be as stated herein.

b) In the event that any suits, actions, or claims are brought against the Owner, Architect, and/or Architect's Consultants, money equal to the "claim amount may be withheld from payments due the Contractor under and by virtue of this contract as may be considered necessary by the Owner for such purpose. Money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that adequate public liability and property damage insurance has been obtained.

c) The policy shall include coverage for the following:

1) Premises - operations

2) Contractual liability

3) Products

4) Completed operations

5) Broad form PD and including X, C and U coverage

6) Personal injury

7) Owners, contractors protective

6. Automobile Liability Insurance: Automobile Liability Insurance with an Employer's Non-Ownership Liability Endorsement in the Contractor's name. Limits of liability shall not be

less than amount indicated herein for Combined Single Limit per occurrence. Provide CSL, BI and PD coverage for owned, non-owned and hired autos.

a) Provide owned, non-owned and hired automobile insurance endorsement.

7. Insurance Schedule
   a) Worker's Compensation Insurance per State of California policy limits of not less than $1,000,000.00.
      1) Employer's Liability Endorsement $1,000,000 min.
   b) Comprehensive General Liability:
      1) Combined single limits for bodily injury and property damage:
         $1,000,000 - Each Occurrence
         $1,000,000 - Annual Aggregate
      2) Personal Injury, with Employment Exclusion deleted.
      3) Include coverage of the following:
         i) Premises - operations
         ii) Contractual liability
         iii) Products
         iv) Completed operations
         v) Broad form PD and including X, C and U coverage
         vi) Personal injury
         vii) Owners, contractors protective

E. ASBESTOS-CONTAINING PRODUCTS:
1. Contractor agrees that asbestos-containing products or materials will not be used or substituted in performing work under the Agreement.
2. At the completion of work under this Agreement, Contractor will certify in writing to the Owner that, to the best of Contractor's knowledge, no asbestos-containing products or materials were used or substituted in performing work under the Agreement.

F. PCB-CONTAINING PRODUCTS & LEAD PLUMBING ITEMS:
1. Contractor agrees that lead plumbing domestic water items, asbestos, PCB, -containing products or materials will not be used or substituted in performing work under the Agreement.
2. At the completion of work under this Agreement, Contractor will certify in writing to the Owner that, to the best of Contractor's knowledge, no lead plumbing domestic water items, asbestos/PCB-containing products or materials were used or substituted in performing work under the Agreement.

G. PREVAILING WAGE RATES AND APPRENTICESHIP REQUIREMENTS – All proposals that exceed $1,000 shall be prevailing wage.
1. Wages and Employer Payments:
   a) The general prevailing wage rates and employer payments for Health and Welfare, Pension, Vacation and similar purposes in the county in which the work is to be done shall be in accordance with the Labor Code of the State of California, Section 1770, et seq.
   b) Copies of all collective bargaining agreements relating to the work as set forth in the aforementioned Labor Code are on file and are available for inspection in the Office of the Division of Labor Statistics and Research of the Department of Industrial Relations.
   c) Employer payments as defined in Section 1773.1 of the Labor Code are to be paid in accordance with the terms of the collective bargaining agreement applicable to the type of classification of the workmen employed on the project and shall be the prevailing wage rate of the county in which the work is to be performed. Overtime shall be paid for the hours worked in excess of the working day and for time worked on Saturdays, Sundays and the seven (7) holidays which are to-wit:
      New Year's Day, Memorial Day, July Fourth,

Labor Day, Veteran's Day, Thanksgiving Day and Christmas.

The Contractor and any subcontractor under him shall comply with the requirements of Sections 1773.3, 1777.5, 1776 and 1777.6 in the employment of apprentices.

1) The predetermined (double asterisk) changes are no longer a part of the general prevailing rates of per diem wages. The rates at the time of the proposal advertisement date of a project will remain in effect for the life of project.
2) The definition of prevailing rate states that when there is no single rate paid to a majority of workers, then the prevailing rate is a weighted average.

d) Not less than the general prevailing wage rate for each classification of work State or Federal which is higher shall be paid by the general contractor and all subcontractors under him shall be paid to all laborers, worker and mechanics employed in the execution of such contract or subcontract there under, including rates for overtime and general holidays in the locality in which the work is to be performed.

e) The Contractor and all subcontractors under him shall make travel and subsistence payments to each workman needed to execute all the work as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Section 1773.8 of the Labor Code.

2. Eight Hour Day: Contractor shall not permit any person employed by him to work overtime other than pursuant to express provisions of Section 1810 of the California Labor Code.

3. Records of Hours Worked and Citizenship: The Contractor shall maintain records of the hours worked by his employees and their citizenship and they shall be open at all times for inspection by the County, Client and/or the Division of Labor Statistics and Law Enforcement, in accordance with Sections 1814 and 1552 of the California Labor Code.

a) The General Contractor shall maintain all certified payroll documents at their office. Copies shall be provided to anyone who provides a request and Owner approves that request. Contractor shall provide copies within ten (10) days of approved request. Contractor shall provide copies, shipping cost, and all other related cost to provide this information at no cost to Owner. Contractor shall maintain certified payroll documents for seven (7) years after Notice of Completion.

4. Penalties: The Contractor shall forfeit as a penalty to said Owner, Fifty Dollars ($50.00) for each laborer, workman or mechanic paid less than the above stipulated rates for any work under this Contract by him or any Subcontractor under him.

5. Enforcement and Verification off Requirements:

a) The records by the Contractor may be checked periodically by an independent enforcement agency to verify compliance with the labor codes and related items.

b) Jobsite interviews may be conducted periodically throughout the duration of the project. The Contractor shall allow access to the project and access to workers during working hours to confirm prevailing wage rates and apprenticeship requirements are followed.

c) Prior to executing the agreement the Contractor shall provide verification of enrollment in an apprenticeship program per Sections 1773.3, 1777.5, 1776 and 1777.6 within the last 12 months.

6. Miscellaneous: Request for exemption from prevailing wage requirements shall be made prior to proposals in time for the Architect to issue an addendum to communicate information to proposers. Request for exemption will not be accepted after above mentioned date.

H. Contractor License And DIR Registration Required.

To perform the work required for this project, Bidder must possess the

type of contractor's license specified in the Notice to Contractors Calling for Bids, and must be registered with the Department of Industrial Relations (DIR) as a public works contractor. Contractor registration can be accomplished through the portal https://efiling.dir.ca.gov/PWCR/. No CONTRACTOR or subcontractor shall be qualified to bid on, be listed in a bid proposal, subject to the requirements of § 4104 of the Public Contract Code, for a public works project (submitted on or after March 1, 2015) unless currently registered with the DIR and qualified to perform public work pursuant to Labor Code § 1725.5. No CONTRACTOR or subcontractor may be awarded a contract for public work on a public works project (awarded after April 1, 2015) unless registered with the DIR.

I. AWARD
District shall issue a purchase order, which shall be the notice to proceed. This will be issued only after receipt of required documents.

J. PRELIMINARY NOTICE:
Preliminary Notices must be filed with the Owner with a copy mailed to both the Consultants and the Contractor.

3.0 PROPOSAL

Submit with Bid

Proposals will be received at the Cerro Coso Community College, 3000 College Heights Blvd, M & O Office, CA 93301 up to October 24, 2023, 2:00 pm

Submitted to:
Kern Community College District
Bakersfield, California

Submitted by:
_____
Name of Firm

Having carefully examined the Proposal and Contract Documents and General Requirements, as well as the premises and the conditions affecting the work, including Addenda (a) No (s) _____, inclusive, the Undersigned proposes to furnish all material and labor called for by all documents for the "entire work", in accordance with said documents for the sum of:

BASE AMOUNT

_____$_____

Allowance #1

$5,000.00

Total Bid Amount

$

The undersigned understands that the time required to complete the work is the essence of the Contract and agrees to commence the work within ten (10) calendar days of the Contract date. The undersigned further agrees that this proposal may not be withdrawn for a period of sixty (60) days after the date set for the opening thereof unless otherwise required by law.

The undersigned agrees, if awarded the Contract, to complete all work by **December 13, 2023.**

The undersigned has checked carefully all the above figures and understands that the District will not be responsible for any errors or omissions on the part of the undersigned in making up this proposal.

The undersigned hereby certifies that this proposal is genuine and not sham or collusive or made in the interest or in behalf of any person not herein named, and that the undersigned has not directly or indirectly induced or solicited any other proposer to refrain form submitting a proposal, and that the undersigned has not in any manner sought by collusion to secure for himself any advantage over any other proposer.

PREVAILING WAGE COMPLIANCE CERTIFICATION:

In submitting this proposal, I hereby certify that I will conform to the State of California Public Works Contract Requirements regarding wages; benefits; on-site audits with 48-hour notice; payroll records; and, apprentice and trainee employment requirements.

Contractor (type or print)	Contractor's signature	Date

CONTRACTOR'S CERTIFICATE REGARDING WORKER'S COMPENSATION:

Submit with Bid

Labor Code Section 3700 provides:

"Every employer except the State and all political subdivision or institutions thereof, shall secure the payment of compensation in one or more of the following ways:

"(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.

"(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees."

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Workers Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with those provisions before commencing the performance of the work of this
contract.

CONTRACTOR:

By (type or print)	Title	Dated

(In accordance with Article 5 [commencing at Section 1860], Chapter 1, Part 7, Division 2 of the Labor Code, this certificate must be signed and filed with the awarding body prior to performing any work under this contract.)

Submit with Bid

NON-COLLUSION AFFIDAVIT:

State of California)
) ss.
County of_____)

_____, being duly sworn, deposes and says:

That he or she is the _____(position) of _____(name of proposer), the party making the proposal; that the proposal is not made in the interest of, or on behalf of any undisclosed person, partnership, company, association, organization or corporation; that the proposal is genuine and not collusive or sham; that the proposer has not directly or indirectly induced or solicited any other proposer to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any proposer or anyone else to put in a sham proposal, or that anyone shall refrain from submitting a proposal; that the proposer has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the proposer or any other proposer, or to fix any overhead, profit, or cost element of the proposal price, or of that of any other proposer, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the proposal are true; and, further, that the proposer has not, directly or indirectly, submitted his or her proposal price or any price breakdown, or their contents, or divulged relative information or data, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

_____
(Firm Name)

_____
(Printed Name - Authorized Agent)

_____
(Signature - Authorized Agent)

Subscribed and sworn to before me on _____, 20 _____.

_____
Notary Public

NOTARY SEAL

05-LIST OF SUBCONTRACTORS

SUBMIT WITH BID

PROJECT TITLE: BID #: CC Bookstore and Office Renovation
OWNER: KERN COMMUNITY COLLEGE DISTRICT

A. In compliance with the Subletting and Subcontracting Fair Practices Act (Public Contract Code Section 4100 and following sections) and any amendments to the Act, each Bidder shall set forth below:

1. The name, location of the place of business California contractor license number and DIR registration number of:

a. Each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the work or improvement to be performed under the Construction Agreement;

b. Each subcontractor licensed by the State of California who, under subcontract to the Bidder, specially fabricates and/or installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of one percent of the Bidder's total bid or Ten Thousand Dollars ($10,000), whichever is greater;

2. The portion of the work which will be done by each subcontractor.

B. The Bidder shall list only one subcontractor for each such portion as is defined by the Bidder in this bid.

C. If the Bidder fails to specify a subcontractor, or if the Bidder specifies more than one subcontractor for the same portion of work to be performed under the contract in excess of one-half of one percent of the Bidder's total bid, the Bidder shall be deemed to have agreed that the Bidder is fully qualified to perform that portion, and that the Bidder alone shall perform that portion.

D. No Bidder whose bid is accepted shall (i) substitute any subcontractor, (ii) permit any subcontractor to be voluntarily assigned or transferred, or allow it to be performed by anyone other than the original subcontractor listed in the original bid, or (c) sublet or subcontract any portion of the work in excess of one-half of one percent of the Bidder's total bid as to which the original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act.

E. Violations of any provision of the Subletting and Subcontracting Fair Practices Act may be deemed by the OWNER to make the bid non-responsive and/or the Bidder non-responsible.

F. Attach additional sheets, as necessary.

SUBCONTRACTOR'S NAME & LOCATION	DESCRIPTION OF PORTION TO BE SUBCONTRACTED	CALIFORNIA CONTRACTOR LICENSE NO.	DIR REGISTRATION NUMBER

Firm Name:

By: _____
[Signature must match that on bid]

Print Name:

4.0 BID BOND

Submit with Bid

Be advised that we, _____

as Principal ("Principal") and _____
_____
a corporation duly licensed to transact business under the laws of the State of California as Surety ("Surety") are firmly bound to **KERN COMMUNITY COLLEGE DISTRICT** as Obligee ("Obligee") in the sum

of $_____ for the payment of which the Principal and the Surety bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, by this Bond.

The Principal has submitted a proposal for _____
(list project on Proposal)

The condition of our obligation is this: if the Principal is awarded the contract upon its proposal, and shall, within the required number of days after the notice of award, execute a contract with the Obligee in accordance with the contract documents, submit the required payment and performance bonds, and provide all other required documents, then this obligation shall be null and void; but in the event that the Principal fails and/or refuses to execute and deliver those documents, this bond will be charged with the costs of the damages experienced by the Obligee as a result of that refusal, including but not limited to, publication costs, the difference in money between the amount of the bid of the Principal and the amount for which the Obligee may legally contract with another party to perform the work if the amount is in excess of the former; building lease or rental costs, transportation costs, professional service costs, and additional salary costs that result from the delay due to the Principal's default on the awarded contract. In no event, however, shall the Surety's liability exceed the penal sum indicated above.

The Surety, for value received, stipulates and agrees that its obligations and its bond shall not be impaired or affected by an extension of the time within which the Obligee may accept such bid; and Surety waives notice of any time extension.

Dated:

PRINCIPAL
By: _____

Title: _____

Dated:

SURETY
By: _____

Title: _____

KERN COMMUNITY COLLEGE DISTRICT - Projects $0 to $175,000
NOTICE OF AWARD AND REQUEST FOR SUBMITTAL OF REQUIRED DOCUMENTS

This notice shall confirm your notification of award. The below items are required to be submitted prior to Notice to Proceed being issued. Per Contract Documents, you have 10 days from this notice of award to provide the following:

PROJECT: _____
PROJECT NO: _____
CONTRACTOR: _____

DATE NOTICE OF AWARD _____
DATE INITIAL REQUEST _____
DATE DUE BACK _____
DATE RECEIVED-INITIAL _____
DATE RECEIVED-RESUBMIT _____

STATUS

X	**Initial request for documents**
.	**Incomplete see below**
.	**Accepted as complete**
	Date completed: _____

REQUIRED DOCUMENTS:

		DATE Complete	Projects $0 to $14,999	Projects $15,000 to $175,000	
1	Bid Bond for 10% of the Contract Amount			X	
2	Payment bond for 100% of the contract amount *(required only projects $25,000 to $175,000)*			X	*
	a. Bond document California Admitted proof			X	*
	b. Bond document US Treasury listing proof			X	*
	c. Bond document power of attorney and proof able to sign documents			X	*
	d. Bond document proof of ability to bond within their capacity-(memo)			X	*
	e. Bond proof/valid & issued from underwriter-(add to memo #6)			X	*
3	Workers compensation & employers liable endorsement		X	X	
4	Comprehensive General Liability Insurance $1,000,000 aggregate		X	X	
5	Proof of License-copy front and back of pocket license		X	X	
6	Comprehensive automobile liability - $1,000,000		X	X	
7	Executed proposal original signature by contractor		X	X	
8	Other items and notes for complete package:				

cc: Contractor, District, File

For official use only:

Bonding Company: _____
AM Best Number: _____
Location: _____
Documents from: _____
AM Best rating: _____
US Treasury Listed _____

5.0 GENERAL CONDITIONS OF AGREEMENT

1) The college will issue a Purchase Order for all work included in this Request for Proposal based on the Contractor's proposal to do certain work for the said Owner, specified and described in certain drawings and specifications, and entitled on the Bid Proposal, in strict accordance with drawings and specifications prepared and attached to RFP.
2) Whereas, the Contractor, before signing the enclosed proposal, has carefully read and examined in connection herewith said proposal and specifications and has carefully examined the site where said work is to be done, and has investigated the character of such work and the materials required to be furnished, and by reason of such reading, examination and investigation, the said Contractor agrees that he thoroughly understands the intent and meaning of this proposal and all component parts of said proposal and the requirements, covenants, stipulations and restrictions thereof.
3) In consideration of the promises and of the payments hereinafter to be made by the Owner to and on account of said Contractor, and the understanding of said Contractor to do said work the College and Contractor agree that:
   a) This Contractor shall receive and accept the sum on proposal herein submitted, as full compensation for furnishing all materials and doing all the work contemplated and embraced in this Contract, and for furnishing all necessary tools, machinery, implements, apparatus and other means of construction; also all loss or damage arising out of the nature of the work to be done under said specifications, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered during the progress of said work, and before the acceptance thereof by said Owner, and shall be responsible for the consequences of his own negligence or carelessness or discontinuance of the work, and for well and faithfully completing the work in the manner and according to the drawings and specifications and all requirements of the College and any and all parties having jurisdiction there over, for the whole thereof, the following sum which represents the Contract Price.
   b) Payments; The Owner agrees, in consideration of the performance of this Contract, to pay the Contractor in the following manner:
      i) Payments will be made only on the certificate of the Owners field representative.
      ii) Monthly payments shall be made to the Contractor in amounts equal to ninety percent (90%) of the estimated value of the work done and the materials furnished and incorporated in the work during the month preceding the date upon which such value is estimated plus ninety percent (90%) of the estimated value of all materials which, on the date of estimation of value, are suitably stored on the site for incorporation into the work; provided that no such monthly payment, or payment of any kind, shall theretofore have been made for any such work done or materials furnished and incorporated or materials suitably stored on the site. The aforesaid estimation of value shall be made by the Owners Representative and noted by him upon the certificates furnished by him pursuant to paragraphs herein.
      iii) Upon substantial completion of the work, a sum sufficient to increase the total payments to ninety percent (90%) of the Contract Price, less an amount determined by Owner to be adequate to complete any unfurnished part of the work by another Contractor should the work not be completed within a reasonable time established by the Owner.
      iv) The final payment shall be made thirty-five (35) days after receipt of the recorded Notice of Completion date, provided that: The Contractor shall furnished satisfactory evidence that all claims for labor and materials have been paid and that no claims shall have been presented to the Owner by any person or persons based upon any act or omission of the Contractor, and no Stop Notices have been filed against said work or the property whereon it was done.
         (1) No certificates given or payments made on account of any Contract shall constitute an acceptance of any equipment, material or work which may subsequently be found to be defective.
   c) Time of Completion. The Contractor agrees to commence the work within five (5) calendar days from the date of the notice to proceed and/or purchase order. Failure to obtain approval of the required documents, within the allotted time, shall not be cause for extension of the time of construction as set forth hereafter.
      i) The Contractor further agrees to construct and execute all of the work described in said

drawings, specifications, proposals, addenda and any and all other requirements, covenants, stipulations and restrictions, within 16 calendar days from and after the date of commencement, said date of commencement being agreed upon as the fifth (5th) calendar day following the date of the notice to proceed and/or purchase order. Owner shall issue actual start date to Contractor.

ii) Both parties agree that the aforementioned stipulated contract period to be a reasonable time scale for completion of the work and Contractor will provide best endeavors to complete the work within the contract period.

iii) If the Contractor shall neglect, fail or refuse to complete the work within the time herein specified, then the contractor does hereby agree, as a part consideration for awarding of this Contract to pay to the Owner the sum of:

One Hundred Dollars - No Cents DOLLARS **($100.00)**

per day plus such additional costs as may be incurred by the College because of such delays, not as a penalty but as liquidated damages for such breach of Contract as hereinafter set forth for each and every day that the Contractor shall be in default after the time stipulated in the Contract for completing the work.

iv) The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain, and said amount is agreed to be the amount of damages which the Owner would sustain and said amounts shall be retained from time to time by the Owner from the current periodical estimates.

v) It is further agreed that time is the essence of each and every portion of this Contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this Contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due.

(1) To any preference, priority or allocation order duly issued by the Government.

(2) To unforeseeable cause beyond the control and without the fault or negligence of the Contractor, including but not restricted to acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of the Contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, and

(3) To any delays of subcontractors occasioned by any of the causes specified in subsections (1) and (2) of herein. Provided, further, that the Contractor shall, within seven (7) days from the beginning of such delay, notify the Owner, in writing , of the causes of delay, who shall ascertain the facts and extent of the delay and notify the Contractor within a reasonable time of its decision in the matter.

d) Drawings and Specifications. This Contract, the drawings and the specifications have been prepared, and are intended to supplement one another. The drawings and specifications shall be deemed by this reference to be incorporated within this Contract, the drawings shall be deemed by this reference to be incorporated within the specifications, and the specifications shall be deemed by this reference to be incorporated with the drawings. In the event a conflict is found to exist between the drawings and specifications, the College shall interpret. In the event that the drawings and specifications, or either of them shall be found to conflict with this Contract, then this Contract shall be govern. Omissions from this Contract of items of provisions present in the specifications or drawings or either of them shall not be deemed a conflict within the meaning of this Article.

e) Changes. Should the Owner, at any time during the progress of the work desire any alterations, or deviations in, or additions to , or omissions from the Contract or the drawings or specifications, said Owner, or representative thereof, shall be at liberty to order them, in writing, and the same shall in no way affect or make void this Contract, but the amount thereof shall be added to, or deducted from, the amount of the Contract Price aforesaid, as the case may be, by a fair and reasonable valuation. This Contract, subject to the provisions of Article II (a) hereof, shall be deemed completed when the work is finished in accordance with the original drawings and specifications, as amended by such changes, whatever may be the nature or extent thereof.

i) No such changes, whatever may be the nature, or modification shall release or exonerate any

surety or sureties upon any guarantee or bond given in connection with this Contract, if required.

ii) Rules of Practice: The rule of practice to be observed in this Contract shall be that upon the demand of either the Owner or the Contractor, the character or valuation of any and all changes, omissions, or extra work shall be agreed upon and fixed in writing, signed by the Owner and the Contractor, prior to execution.

f) Acceptance of Work. The payment of the progress payments by the Owner shall not be construed as an absolute acceptance of the work done up to the time of such payments, except as to such matters as are open and obvious, but the entire work, and at the time when it shall be claimed by the Contractor that the Contract and work is completed. Liability under the bonds is to continue for one (1) year from the date of acceptance and bonds will not be released until such date.

g) Failure to provide workmen and materials. If the Contractor at any time during the progress of the work should refuse or neglect, without the fault of the Owner, to supply sufficient amount of materials or enough workmen to complete the Contract within the time herein set forth, due allowance being made for the contingencies provided for herein, for a period of more than seven (7) days after having been notified by the Owner in writing to furnish the same, the Owner shall have the power to furnish and provide said materials and/or workmen to finish the said work, and the reasonable expense thereof shall be deducted from the amount of the Contract Price.

h) Penalties. This Contractor shall forfeit, as a penalty to the said Owner, the sum of fifty dollars ($50.00) for each laborer, workman, or mechanic employed in the execution of this Contract, or any sub-contractor under him, for each calendar day during which such laborer, workman or mechanic is required or permitted to labor more than eight (8) hours in violation of Section 1810-1811, Chapter One, of Division Two, Part Seven of the Labor Code of the State of California, and said Owner, when making payments of money due under this Contract, shall withhold and retain there from all sums and amounts which have been forfeited pursuant to the herein said stipulation.

i) Insurance and Bonds: Insurances and bonds, as set forth in the supporting contract documents, shall be maintained in effect during the period of this Contract.

j) Relations to Bid Proposals: If proposal is accepted by owner, be it further stipulated and agreed that said Owner does promise and agree to employ the said Contractor to provide the materials and do the work according to the terms and conditions herein contained and referred to, for the prices aforesaid, and herein contracts to pay the same at the time, in the manner and upon the conditions set forth above; and the said parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to the full performance of the covenants herein contained. It is further agreed by and between the parties hereto that should there be any conflict between the terms of this instrument and the bid proposal of said Contract, then this instrument shall control and nothing herein shall be considered as an acceptance of the said terms of said proposal conflicting herewith.

k) Asbetos/PCB-containging products and lead plumbing items: Contractor agrees that lead plumbing domestic water items, asbestos, PCB, -containing products or materials will not be used or substituted in performing work under the Agreement. At the completion of work under the Agreement, Contractor will certify in writing to the Owner that to the best of Contractor's knowledge, no lead plumbing domestic water items, asbestos/PCB-containing products or materials were used or substituted in performing work under the Agreement.

l) Compliance with air pollution and storm water prevention control rules: Contractor shall comply with all air pollution control rules, regulations, ordinances, and statutes which apply to any work performed pursuant to the Contract, including any air pollution control rules, regulations, ordinances, and statutes specified in Section 11017 of the Government Code, as well as local requirements, County, City, local Air Pollution Control Districts and Storm Water Prevention Districts. Contractor shall require all subcontractors to abide by these items.

m) Contractor-Employee requirements: By submitting proposal, the Contractor certifies he is aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workmen's compensation or to undertake self-insurance in accordance with the provisions of that code, and that he will comply with such provisions before commencing the performance of the work of this Contract.

i) In accordance with the provisions of Section 3700 of the Labor Code, every contractor will be

required to secure payment of compensation to his employees.

ii) The Contractor and Subcontractors under him shall comply with the provisions of Division 2, Part 7, Chapter 1, Article 2, Sections 1770-1780 with particular reference to the employment and use of apprentices and other provisions that require him to make travel and subsistence payments to each workman needed to execute the work, as such collective bargaining agreements filed in accordance with the Labor Code, and to pay not less than the minimum per diem wages as determined by the Director of the Department of Industrial Relations, on file in the principal office of the Owner.

iii) Special attention is directed to Sections 1777.5, 1777.6 and 1777.7 of the California Labor Code and Title 8, California Code of Regulations Section 200 et. seq. Each contractor and/or subcontractor must, prior to commencement of the public works contract, contact the Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, or one of its branch offices regarding apprentices and specifically the required ratio there under. Responsibility for compliance with this section lies with the prime Contractor. During the performance of this Contract, the Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin.

n) Notices: All notices herein provided to be given or which may be given by either party to the other shall be deemed to have been fully given when made in writing and deposited with the United States Postal Service, Registered or Certified, and postage prepaid and addressed as follows:

i) Owner, person and address on title sheet of RFP.

ii) Contractor, person and address on proposal submitted by contractor herein.

iii) The address to which the notices shall or may be mailed as aforesaid to either party shall or may be changed by written notice given by such party to the other, as hereinbefore provided, but nothing herein contained shall preclude the giving of any such notice by personal service.

6.0 PROJECT SCOPE

A. **PROJECT DESCRIPTION:** Bookstore Renovation

1) This project consists of:

a) See attached plans and specifications
b) Clean up after complete
c) There is an owner Allowance (if applicable)

B. WORK SEQUENCE:

1. The Work will be conducted in one phase to provide the least possible interference to the activities of the Owner's personnel and to permit an orderly transfer of personnel and equipment to the new facilities.

C. CONTRACTOR USE OF PREMISES:

1. General: Limit use of the premises to construction activities in areas indicated; allow for Owner occupancy and use by the public.

   a. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
   b. Keep driveways and entrances serving the premises clear and available to the Owner and the Owner's employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.

2. Use of the Existing Building: Maintain the existing buildings in a weather tight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period.

D. OWNER OCCUPANCY:

1. Full Owner Occupancy: The Owner will occupy the site and existing building during the entire construction period. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations.

E. GENERAL SCOPE OF WORK:

1. Contractor to inspect project site and inspect existing conditions/utilities.
2. Scheduling of work to be coordinated with college for non-interruption during office hours, c/o M/O Director.
3. Provide all necessary tools and equipments to complete work within time frame stated in contract.
4. Contractor to inform Owner one (1) week before work is completed to schedule testing and inspection. Contractor to guarantee workmanship one (1) year.
5. Work areas shall be cleaned /cleared on a daily basis. All construction debris to be removed from site upon completion of work by contractor.

-----End of Document----

PROJECT MANUAL FOR:

CERRO COSO BOOKSTORE REMODEL

RIDGECREST, CALIFORNIA

09/14/23

CERRO COSO COLLEGE
KERN COMMUNITY COLLEGE DISTRICT
PROJECT NO: 550-0050

SET NO: _____

3434 Truxtun Ave. Suite #240 Bakersfield, CA 93301
661.327.1690 661.327.7204 fax
www.aparchitects.net

SECTION 011000 - SUMMARY OF WORK

02/15/23

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes, but not limited to the following:

1. Project information.
2. Work covered by Contract Documents.
3. Phased construction.
4. Work by Owner.
5. Work under separate contracts.
6. Future work.
7. Purchase contracts.
8. Owner-furnished products.
9. Contractor-furnished, Owner-installed products.
10. Access to site.
11. Coordination with occupants.
12. Work restrictions.
13. Specification and drawing conventions.
14. Miscellaneous provisions.

B. Related Requirements:

1. Division 1 Section 012100 “Allowances”: for purchase contracts.
2. Division 1 Section 015000 "Temporary Facilities" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

A. Project Identification:

Bookstore Remodel
Cerro Coso College
3000 College Heights Blvd,
Ridgecrest, CA 93555

B. Owner:

Kern Community College District
Christian Beltramo
2100 Chester Ave,
Bakersfield, CA 93301

C. Architect:

AP Architects

Jose Vargas – Project Manager
3434 Truxtun Avenue Suite 240,
Bakersfield CA 93301

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work consists of the remodel of interior spaces at main Building into Bookstore space.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.5 WORK UNDER OTHER CONTRACTS

A. Subsequent Work: Owner will perform the following additional work at site before or after Project Completion. Completion of that work will depend on successful completion of preparatory work under this Contract.

1. That work is not limited to the following: Flooring installation – prep to be done by this Contractor – see plans.

1.6 WORK SEQUENCE

A. The Work will be conducted in one phase to provide the least possible interference to the activities of the Owner's personnel and to permit an orderly transfer of personnel and equipment to the new facilities. Project completion is scheduled for specific number calendar days, (refer to Bid Proposal). Contractor shall review scope of work, and provide manpower, resources, etc., as required to complete project on or before the date required for project completion. Contractor shall allow in Proposal weekend workers, shifts of workers and additional productivity not limited to workers, materials, temporary facilities and equipment as required to meet project schedule with limited access times as indicated herein.

B.

1.7 CONTRACTOR USE OF PREMISES

A. General: Limit use of the premises to construction activities in areas indicated; allow for Owner occupancy and use by the public.

1. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
2. Keep driveways and entrances serving the premises clear and available to the Owner and the Owner's employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
3. When performing new construction on existing sites, become informed and take into specific account the maturity of the students on the site, and perform work which may interfere with educational facility routine before or after facility hours; enclose the work area with a substantial barricade and arrange work to cause a minimum of inconvenience and danger to students and staff in their regular facility activities.

B. Use of the Existing Building: Maintain the existing buildings in a weathertight condition

throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period.

1. Use of Existing Elevator: The Contractor will be permitted to use the elevator for freight service only during the construction period. This elevator must also be available to the Owner at all times; coordinate usage with the Owner's representative. Provide protective pads for the cab and other appropriate protective measures for the car and entrance doors and frames. At the end of construction, restore the elevator to its original condition; deliver protective pads to Owner M/O Department.

1.8 OWNER OCCUPANCY

A. Full Owner Occupancy: The Owner will occupy the site and existing building during the entire construction period. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations.

1.9 WORK RESTRICTIONS:

A. Work Restrictions, General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.
2. Smoking is not permitted on campus.
3. Use of controlled substances on the Project site is not permitted.

B. On-Site Work Hours: Limit work in the existing building to normal business working hours of **6:30** a.m. to **5:00** p.m., Monday through Friday, except as otherwise indicated.

1. Weekend Hours: **As agreed with Owner.**
2. Hours for Utility Shutdowns: Arranged and agreed to advance shutdown with Owner.

C. Construction work that generates noise beyond 90db that will disturb adjacent areas shall be scheduled around class schedule and office hours of occupied rooms within 125 feet of work to be done. This work may have to be done during after hours, evenings and Contractor shall verify class schedules when work will generate noise beyond 90db.

C. Deliver materials to the building area over the route designated by the facility Maintenance and Operations department. Times of deliveries shall coincide not to be done during 5 minutes before class change time between classes and 5 minutes after if said deliveries path is thru any area students will occupy during class change times. If a delivery is overlapping class change times, cease work, provide temporary barricades and resume 5 minutes after classes resume.

PART 2 - PRODUCTS (Not applicable).

PART 3 - EXECUTION (Not applicable).

END OF SECTION 011000

SECTION 012100 - ALLOWANCES 04/16/15

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 &1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements governing handling and processing allowances.

1. Selected materials, services, equipment, related items and in some cases, their installation and related/non-related work are shown and specified in the Contract Documents by allowances herein. Allowances have been established in lieu of additional requirements and to defer selection of actual materials, miscellaneous additional work scope and equipment to a later date when additional information is available for evaluation.
2. Special allowances have been established for unforeseen conditions, latent conditions and related item to be authorized by the Architect for use.

B. Types of allowances required include the following:

1. Lump sum allowances in Base Bid.

C. Related Requirements:

1. Division 1 Section "Modification Procedures" for procedures for submitting and handling Change Orders.
2. Division 1 Section “Summary of Work” for additional requirements on purchase contracts.

1.3 SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

B. Submit invoices or delivery slips to indicate actual quantities of materials delivered to the site for use in fulfillment of each allowance.

1.4 ALLOWANCES

A. Use the allowance only as directed for the Owner's purposes, and only by Supplementary Instructions, which designate amounts to be charged to the allowance.

1. The direct costs for products or equipment ordered by the Owner under the lump sum allowances, including delivery, installation, taxes, and similar costs are part of the allowance. Vendor shall provide insurance as required by the Owner. Contractor shall agree to accept insurance required by Owner for vendor for allowance item. If the contractor requires any special insurance, additional requirements and or bonding of any allowance vendor, contractor shall allow for this cost in his base bid or alternate bid if allowance is tied to an alternate.

a. In the event the work under allowance cannot be completed during the duration of the project as prescribed under “Project Summary”, contractor may elect to request additional extended overhead. Extended overhead will be determined by actual costs incurred by contractor specific to this project and verified by project schedule.

2. Supplementary Instructions (SI) authorizing use of funds from the lump sum allowance will not include the Contractor's related costs and reasonable overhead, supervision, profit margins and other related costs as these costs are already in the contractor’s proposal/bid.
3. If any individual allowance contains surplus funds or contains deficient funds, Architect may transfer funds between allowances as necessary.
4. At Project closeout, credit unused amounts remaining in the allowance to Owner by Negative Change Order amount for unused amounts.
5. The contractor shall include in his base bid all overhead, profit, supervision, bonds, insurance and all other indirect costs for allowance items. None of these items will be added to lump sum and miscellaneous allowance as it is used by the Owner and directed by the architect. In the event the allowance is required in an Alternate, the contractor shall include in his alternate bid all overhead, profit, supervision, bonds, insurance and all other indirect costs for allowance items specific to that alternate.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 INSPECTION

A. Inspect products covered by an allowance promptly upon delivery for damage or defects.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related construction activities.

B. Coordinate scheduling of Owner selected Vendors. Obtain availability schedules from Vendors early in project to coordinate timing of special milestones and products necessary for implementation into overall construction activities.

3.3 SCHEDULE OF BASE BID ALLOWANCES

A. Allowance No. 1: Include a lump sum allowance of $15,000.00 for use upon the Owner/Architect’s instructions.

END OF SECTION 012100

SECTION 012600 - MODIFICATION PROCEDURES 11/01/16

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification sections, apply to this section.

1.2 SUMMARY

A. This section specifies administrative and procedural requirements for handling and processing Contract modifications.

1.3 MINOR CHANGES IN THE WORK and REQUEST FOR INFORMATION (RFI)

A. Supplemental instructions authorizing minor changes in the Work, not involving an adjustment to the Contract Sum or Contract Time, will be issued by the Architect. The Architect may issue written Supplemental Instructions, (SI), which interpret the Contract Documents or which order minor changes in the work without change in Contract sum or Contract time. The Contractor shall carry out such Supplemental Instructions promptly.

1. Unless otherwise noted, SI, (Supplemental Instructions) does not warrant a cost or time impact to the Contract cost or time. If Contractor does not agree, Contractor has 10 calendar days from date of receipt of SI to file a claim for adjustment in writing to the architect.
2. The Architect shall use SI's for written order for usage of allowance funds for project if any allowances are indicated.

B. Contractor shall be able to ask valid questions concerning items required to construct project. This shall be done by the following methods in order as follows: (1) Contractor to review plans and determine if information is prescribed therein; (2) Contractor to review question with Project Inspector and determine if information is indicated, intended and/or prescribed in construction documents; (3) Contractor place an informal inquiry with architect and discuss question: and if no answer is determined then (4) Contractor shall prepare a Request for Information (RFI) and deliver to architect for determination of answer and or direction from architect as prescribed herein.

1. Contractor shall submit Request for Information (RFI) on enclosed form at end of this Section.
2. Contractor shall attach to RFI what they consider to be answer to Request for Information. Failure to provide this information shall be grounds for Architect to Request for Clarification.
3. An RFI is defined as a request for information for information that cannot be found in the construction documents and related submittals. Items not considered RFI's are as follows:

    a. A request for a proposed alternative materials, products or colors.
    b. Substitutions.
    c. Coordination of Contractor changed/initiated field conditions.

1.4 CHANGES IN WORK

A. The Owner, without invalidating the Contract may make changes by altering, adding to, or deducting from the work, the Contract sum and construction duration being adjusted accordingly. All such work shall be executed under the conditions of the original contract. Unless so authorized, the Contractor shall not deviate from nor alter the work as shown on the drawings or specifications. Additional work may be added to project by using project allowances as prescribed herein.

1. In the event additional work is added to the project via allowances the Contractor shall provide an analysis of the schedule impact if any. If additional work is shown to impact the construction schedule the Contractor shall be entitled additional time as agreed to by architect. If additional work is shown by schedule analysis to have no impact, no additional construction duration will added to project.
2. Any changes in construction duration shall be documented by a Change Order to Contract.

B. If Contractor should claim that any instruction, request, drawing, specification, action, condition, omission, default, or other situation constitutes a change, extra work, or otherwise obligates Owner to pay additional compensation to Contractor or to grant an extension of time, or constitutes a waiver of any provision in the Contract Documents, Contractor shall notify Owner in writing of such claim within ten calendar days from the date Contractor has actual or constructive notice of the factual basis supporting the claim. The notice shall state the factual basis for the claim and cite in detail the Contract Documents (including plans and specifications) upon which the claim is based. Contractor's failure to notify Owner and Architect within the ten-day period shall be deemed a waiver and relinquishment of such a claim. If the notice is given within the specified time, the procedure for its consideration shall be as stated in these General Conditions. In the event of failure to agree, the matter shall be treated as a claim following the claims procedures in the Contract Documents.

C. No change shall be made without such authorization, signed by the Owner, and countersigned by the Architect, or signed by the Architect and stating that the Owner has authorized such changes.

1. Refer to Supplementary Conditions for Construction Change Directive (CCD) procedures.
2. Refer to Supplementary Conditions for Supplemental Instructions (SI) procedures.

D. Any changes processed by the Contractor or any work performed not in conformance with these plans and specifications which requires extra drawing, specifications, calculations, inspections and any other work by the Architect and/or Engineers shall be paid for by the Contractor. Payment shall be made to the Architect at current hourly rate on file due and payable upon presentation of invoice.

1.5 CHANGE ORDER PROCESS-(OWNER AND CONTRACTOR INITIATED PROPOSAL REQUEST, AND ALLOWANCES.)

A. Owner-Initiated Proposal Requests: Proposed changes in the Work that will require adjustment to the Contract Sum or Contract Time will be issued by the Architect, with a detailed description of the proposed change and supplemental or revised Drawings and Specifications, if necessary.

1. Request for Proposal requests (RFP),issued by the Architect are for information only. Do not consider them an instruction either to stop work in progress, or to execute the proposed change.
2. Unless otherwise indicated in the proposal request, within 20 calendar days of receipt of the proposal request, submit to the Architect for the Owner's review an estimate of cost necessary to execute the proposed change as well as Construction Duration impact.

a. Include a list of quantities of products to be purchased and unit costs, along with the

total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.

b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

c. Include a statement indicating the effect the proposed change in the Work will have on the Contract Duration.

d. Before Contractor is authorized to proceed with extra work or changes on the basis set forth above, the Owner and the Contractor shall be in complete agreement on what the term "costs" shall include and the amount of overhead and profit the Contractor is to charge.

e. All unit prices, whether set forth in the Contract or subsequently agreed upon, shall include overhead, profit, supervision, increased premium on all Bonds, increased premium on all insurances and other indirect cost for all tiers of contractors and related material men unless said items are being paid thru an allowance where overhead, profit, supervision, bonds, insurance and related items are included in contractor's base bid.

f. If there has been no response within 20 calendar days to an Architect's Request for Proposal, the Architect may direct the change to be done Time and Material. Under no circumstance may the contractor increase cost or increase schedule time due to Owner not receiving proposal timely.

B. Contractor-Initiated Change Order Proposal Requests: When latent or other unforeseen conditions require modifications to the Contract, the Contractor may propose changes by submitting a request for a change to the Architect.

1. Include a statement outlining the reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.
2. Include a list of quantities of products to be purchased and unit costs along with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Comply with requirements in Supplementary Conditions Article 15 Substitutions if the proposed change in the Work requires the substitution of one product or system for a product or system specified.
5. Claim submitted to the Architect for extensions of time and extra cost shall be made on forms carrying Contractor's letterhead and shall contain a complete breakdown of all costs and extension of Surety Bonds and Insurance impacts.
6. Before Contractor is authorized to proceed with extra work or changes on the basis set forth above, the Owner and the Contractor shall be in complete agreement on what the term "costs" shall include and the amount of overhead and profit the Contractor is to charge as any Contract Duration impacts.

C. For changes that increase or decrease the contract price, or being paid by allowance item, the Contractor shall include the following amounts for overhead and profit:

1. Contractor's overhead and profit on the cost of work excluding work by Contractor shall be a total sum not exceeding ten percent (10%) of cost of such work. (See below for allowances)
2. Contractor's overhead and profit on the cost of work performed by contractor without subcontractor shall be a total sum not exceeding ten percent (10%) of the cost of labor, materials, rentals, etc. (See below for allowances)
3. Subcontractor's overhead and profit on the cost of work performed by subcontractor shall be a total sum not exceeding ten percent (10%) of the cost of labor, materials, rentals, etc.
4. Subcontractor's overhead and profit on the cost of work performed by sub-contractors (one

lower tier) shall be a total sum not exceeding five percent (5%) of such work.

5. Allowances: The contractor shall include in his base bid all overhead, profit, supervision, bonds, insurance and all other indirect costs for allowance items. None of these items will be added to lump sum and miscellaneous allowance as it is used by the Owner and directed by the Architect. In the event the allowance is required in an Alternate, the Contractor shall include in his alternate bid all overhead, profit, supervision, bonds, insurance and all other indirect costs for allowance items specific to that alternate.

D. Time and Material basis as changes in the work. For changes that increase the contract price and work is authorized based upon the cost of labor, material, equipment and subcontract prices, plus a percentage for overhead and profit the following requirements shall apply. In the event the costs for changes in the work are not agreed to by the Architect and Contractor the work may be authorized to move forward on a time and material basis. If a Time and Material basis is used and scope of work is being paid thru an allowance overhead and profit are to be included in base bid and alternates where occur.

1. Daily reports by Contractor, as follows:

a. General. At the close of each working day, Contractor shall submit a daily report to the Architect and the Project Inspector on forms approved by Owner, together with applicable delivery tickets listing all labor, materials, and equipment involved for that day, and for other services and expenditures, when authorized, concerning extra work items. An attempt shall be made to reconcile the report daily, and it shall be signed by the Architect and Contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the report. Reports by subcontractors or others shall be submitted through Contractor.

b. Labor. The report shall show names of workers, classifications, and hours worked and hourly rate. Project supervision expenses, including for foremen and above, are not allowed. (iii) Materials. The report shall describe and list quantities of materials used and unit cost.

c. Equipment. The report shall show the type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable, and hourly/daily costs.

d. Other Services and Expenditures. Other services and expenditures shall be described in such detail as Owner may require.

2. Basis for Establishing Costs

a Labor. The costs of labor will be the actual cost for wages prevailing locally for each craft classification or type of worker at the time the extra work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from federal, state, or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of labor classifications which would increase the extra work cost will not be permitted unless Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

b. Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the work site in the quantities involved, plus sales tax, freight, and delivery. Owner reserves the right to approve materials and sources of supply, or to supply materials to Contractor if necessary for the progress of the work. No markup shall be applied to any material provided by the Owner.

c. Tool and Equipment Rental. No payment will be made for the use of tools which

have a replacement value of $100 or less or where an invoice is not provided. Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental sources or distributors at the time the work is performed. The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Necessary loading and transportation costs for equipment used on the extra work shall be included. If equipment is used intermittently, and when not in use could be returned to its rental source at less expense to Owner than holding it at the work site, it shall be returned, unless Contractor elects to keep it at the work site at no expense to Owner. All equipment shall be acceptable to the Architect in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and manufacturer's approved modifications shall be used to classify equipment and it shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

d. Other Items. Owner may authorize other items which may be required on the extra work. These items include labor, services, material, and equipment which are different in their nature from those required by the work and which are of a type not ordinarily available from Contractor any of the Subcontractors. Detailed invoices covering all such items shall be submitted with the request for payment. (v) Invoices. Vendors' invoices for material, equipment rental, and other expenditures shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, Owner may establish the cost of the item involved at the lowest price which was current at the time of the report.

3. Daily worker time sheets shall be approved by the Project Inspector as well as copies of all materials invoices delivered to project site for this specific change. Time sheets and copies of all material costs shall be provided with pay request for this specific change with daily approvals by Project Inspector

E. The following form shall be used by Contractor as applicable to communicate proposed additions and deductions to the Contract Documents and use of allowances:

#	Description	Extra	Credit
a	Materials (attached itemized quantity and unit costs including any sales tax.	_____	_____
b	Labor (attached itemized hours and rates)	_____	_____
c	$ Subtotal	_____	_____
d	Subcontractor's overhead and profit on the cost of work performed by sub-contractors (one lower tier) shall be a total sum not exceeding five percent (5%) of such work.	_____	_____
e	$ Subtotal	_____	_____
f	Subcontractor's overhead and profit on the cost of work performed by subcontractor shall be a total sum not exceeding ten percent (10%) of the cost of labor, materials, rentals, etc.	_____	_____
g	$ Subtotal	_____	_____
h	Contractor's overhead and profit on the cost of work excluding work by Contractor shall be a total sum not exceeding ten percent (10%) of cost of such work. (Refer to project manual “Allowances” where overhead and profit are included in base bid and alternates where occur)	_____	_____

i	Contractor's overhead and profit on the cost of work performed by contractor without subcontractor shall be a total sum not exceeding ten percent (10%) of the cost of labor, materials, rentals, etc. . (Refer to project manual "Allowances" where overhead and profit are included in base bid and alternates where occur)		
j	Bond Premium (Submit invoice from Bonding provider) . (Refer to project manual "Allowances" where bond premium are included in base bid and alternates where occur)		
k	Insurance (Submit invoice from Insurance provider) (Refer to project manual "Allowances" where bonds and insurance are included in base bid and alternates where occur)		
l	$ Total		
m	Number of additional days time extension requested due to this time and material change. (Submit as built critical path schedule validating time extension for review and approval)		
	Total Days		
	Subcontractor's labor, material, overhead and profit shall be submitted with documentation in original form as submitted to General Contractor. (Refer to project manual "Allowances" where overhead and profit are included in base bid and alternates where occur)		

F. It is expressly understood that the value of such extra work or changes as determined by any of the methods herein expressly includes any and all of the contractors' costs and expense, both direct and indirect, resulting from delays or additional time required on the project, or resulting from accelerated work to avoid delays to the project.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 012600

CONSTRUCTION REQUEST FOR INFORMATION

DATE: _____ RFI # _____

ATTN: Jose Vargas
3434 Truxtun Avenue Ste 240
Bakersfield CA 93301

PROJECT: Bookstore Remodel
Cerro Coso College
Kern Community College District
PROJECT#: 550-0050

Subject: _____ Section #: _____
_____ Sheet #: _____

Description: _____

☐ Clarification ☐ Unforeseen Condition ☐ Owner Change ☐ Others

Requesting Sponsor: _____ Approved by: _____

Total number of pages: _____ Contractor: _____

☐ RFI has been reviewed with Project Inspector without resolution

The Architect has 15 business days after written request is received to respond to Request for Information. No delay will be recognized on account of failure of Architect to furnish such interpretations within that period. Partial response or request for clarification of Request for Information constitutes response by Architect. Claims for adjustment shall be made within 10 calendar days after occurrence of the event giving rise to such claim in writing. Date received at Architect's office of signed original claim shall constitute date received. Architect shall be reimbursed by Contractor for time at current hourly rates prevailing to respond to Request for Information that are found to be substantially answered in Construction Documents.

ARCHITECT'S RESPONSE:

☐ RFI not valid ☐ RFI valid

Issued RFI Response #: _____

SECTION 013100 - PROJECT MEETINGS

03/24/16

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for project meetings including but not limited to:

1. Pre-Construction Conference.
2. Progress Meetings.

B. Related sections include the following construction schedules are specified in another Division-1 Section.

1. Division 1 Section “Submittals” for construction schedules and related items.

1.3 PRE-CONSTRUCTION CONFERENCE

A. Schedule a pre-construction conference and organizational meeting at the Project site or other convenient location no later than 15 days after Notice to Proceed and prior to commencement of construction activities. Conduct the meeting to review responsibilities and personnel assignments.

B. Attendees: The Owner, Architect, the Contractor and its superintendent, major subcontractors, manufacturers, suppliers and other concerned parties shall each be represented at the conference by persons familiar with and authorized to conclude matters relating to the Work.

C. Agenda: Discuss items of significance that could affect progress including such topics as:

1. Tentative construction schedule.
2. Critical Work sequencing.
3. Designation of responsible personnel.
4. Procedures for processing field decisions and Change Orders.
5. Procedures for processing Applications for Payment.
6. Distribution of Contract Documents.
7. Submittal of Shop Drawings, Product Data and Samples.
8. Preparation of record documents.
9. Use of the premises.
10. Office, Work and storage areas.
11. Equipment deliveries and priorities.
12. Safety procedures.
13. First aid.
14. Security.
15. Housekeeping.
16. Working hours.

1.4 PROGRESS MEETINGS

A. Conduct progress meetings at the Project site at periodic scheduled intervals. Coordinate schedules with the Owner and Architect of proposed meeting dates in advance of meetings. Discuss at Pre-construction meeting. Coordinate dates of meetings with preparation of the payment request such Architect and Project Inspector can discuss any issue with Contractor on project site.

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

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

1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind 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.

2. Review the present and future needs of each entity present, including such items as:

a. Interface requirements.
b. Time.
c. Sequences.
d. Deliveries.
e. Off-site fabrication problems.
f. Access.
g. Site utilization.
h. Temporary facilities and services.
i. Hours of Work.
j. Hazards and risks.
k. Housekeeping.
l. Quality and Work standards.
m. Safety of Students and Staff.
n. Documentation of information for payment requests.

D. Reporting: No later than 3 business days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.

1. Schedule Updating: Revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.
2. Send Architect, Construction Manager, Project Inspector, and Owner digital files of meeting report and revised schedules.
3. Architect shall provide a copy of field report made during visit to Contractor within 10 days of site visit.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 013100

SECTION 013300 - SUBMITTALS

11/01/16

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for submittals required for performance of the Work, including, but not limited to,;

1. Contractor's construction project schedule.
2. List of products/manufacturers.
3. Shop Drawings.
4. Product Data.
5. Samples.
6. Miscellaneous Submittals.
7. Construction Schedule and updates required for each payment request.

B. Administrative Submittals: Refer to other Division-1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to:

1. Permits/Public Works.
2. Applications for payment.
3. Performance and payment bonds.
4. Insurance certificates.
5. List of Subcontractors.
6. Schedule of Values.
7. Electronic certified payroll records directly to the Labor Commissioner.
8. Preliminary notices (20-day notice).
9. Procedures for substitutions.

1.3 SUBMITTAL PROCEDURES

A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.

    a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
    b. No color selections will be made until all color samples for entire project have been received by the Architect and determined to be acceptable.

3. Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for re-submittals.

    a. Allow three weeks for initial review (21 calendar days). Allow additional time if

processing must be delayed to permit coordination with subsequent submittals. The Architect will promptly advise the Contractor when a submittal being processed must be delayed for coordination.

b. If an intermediate submittal is necessary, process the same as the initial submittal.

c. Allow two weeks (14 calendar days) for reprocessing each submittal.

d. No extension of Contract Time or claims for additional costs will be approved or authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work and Critical Path Schedule to permit processing requirements indicated herein. Submittals covering component items and forming an interrelated system of items must be coordinated and submitted concurrently rather than individual submittals for review.

e. Time is defined as calendar days, starting from date item is received in architect's office and end with date of transmittal to General Contractor as last day of review.

1) Where Submittal is required to be reviewed by consulting Engineer, time to review will be increased by seven (7) calendar days for review.

2) Where Submittal is required to be reviewed by two parties--i.e., Architect-Engineer, Engineer-Engineer--add fourteen (14) calendar days for review.

3) The Architects' office is closed from December 16 through January 2 of each calendar year. Submittals received less than 21 calendar days before office closing may not be processed before office closed dates noted herein. The balance of the 21 calendar days will resume after January 2 of each closing for submittals and related items. It is the contractor's responsibility to have critical submittals received by the architect 21 calendar days prior to above closing for timely processing.

a). Consulting engineering related submittals and re-review items will add time as indicated herein above to the amount of time indicated due to office closing.

f. Shop drawings, submittals and related items shall be submitted at a time sufficiently early to allow review by the Architect and the Division of State Architect (DSA) if required, and to accommodate the rate of construction progress required under the Contract Documents. Contractor will be required to pay the Architect's reasonable and customary fees to expedite review of shop drawings which are not submitted in timely fashion.

g. Contractor shall have no claim for damages or extension of time due to any delay resulting from contractor having to make required revisions to shop drawings unless the Architect's review of the drawings is delayed beyond the time provided in the contract documents and contractor can establish that the Architect's delay is review actually resulted in a delay in Contractor's construction schedule. Contractor shall provide a record as built schedule as proof of delays within 10 days of the event that gives rise to a delay claim. Contractor shall not be entailed to any claim for damages resulting from DSA review beyond days allowed herein documents after submittal. However, owner may consider an extension of time due to any delay caused by DSA review.

4. All submittals shall be cross-referenced to contract documents to expedite checking. Use Project Manual's section designation and Working Drawing's sheet number(s).

B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

1. Provide a space approximately 4" x 4" on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken. Provide on the label or beside the title block on Shop Drawings to record the Architect's review and approval markings and the action taken.

2. Include the following information on the label for processing and recording action taken.

a. Project name.
b. Date.
c. Name and address of Architect.
d. Name and address of Contractor.
e. Name and address of subcontractor.
f. Name and address of supplier.
g. Name of manufacturer.
h. Number and title of appropriate Specification Section.
i. Drawing number and detail references, as appropriate.

3. Submittals shall be stamped and signed by the Prime Contractor to the effect that the contents have been reviewed and approved by him and meet the requirements for this project. Submittals will not be reviewed without this approval by Prime Contractor. Contractor's review and approval of shop drawings shall include the following stamp:

a. "Contractor has reviewed and approved not only the field dimensions but the construction criteria and has also made written notation regarding any information in the shop drawings that does not conform to the Contract Documents. This shop drawing has been coordinated with all other shop drawings received to date by Contractor and this duty of coordination has not been delegated to subcontractors, material suppliers, the Architect, or the engineers on this Project.

_____
Signature of Contractor"

C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Architect using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.

1. On the transmittal record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

D. Failure to provide adequate and correct submittals: Contractor shall make a complete and acceptable submittal to the Architect by the second submission of submittals. Owner shall withhold funds due to Contractor to cover additional costs of the Architect's review beyond the second submission and any other costs incurred by Owner.

1. Architect shall be reimbursed for all time spent in reviewing and processing of re-submittals of any submittals after the second submission where items have not been addressed, corrected and/or providing a complete submittal as requested by architect in previous submissions of a submittal.

E. Submittal quantities:

1. Provide digital PDF copy of all submittals except as follows:

a. Shop Drawings: Provide 4 copies of shop drawings. Architect and Engineer will red line any corrections and retain 4 copies. Contractor will be sent a PDF file of black and white scanned shop drawing for distribution and printing by Contractor. In the event of corrections and resubmittal contractor shall send 4 corrected copies of Shop Drawings at each resubmittal.

1.4 CONTRACTOR'S CONSTRUCTION PROJECT SCHEDULE

A. Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart type Contractor's construction project schedule. Identify critical path items throughout project schedule. Submit within 15 days of the award of contract.

1. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the Work as indicated in the "Schedule of Values".
2. Within each time bar indicate estimated completion percentage in maximum 10 percent increments. As Work progresses, place a contrasting mark in each bar to indicate Actual Completion.
3. Prepare the schedule on a sheet, or series of sheets of sufficient width to show data for the entire construction period.
4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the project schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.
5. Coordinate the Contractor's construction project schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests and other schedules.
6. Indicate completion in advance of the date established for Final Completion. Indicate Final Completion on the schedule to allow time for the Architect's procedures necessary for certification of Final Completion.

B. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by requirements for phased completion to permit Work by separate Contractors, partial occupancy by the Owner prior to Final Completion.

C. Work Stages: Indicate important stages of construction for each major portion of the Work, including testing and installation.

D Weather Delays: Contractor shall show anticipated rain, sleet, snow, wind and other weather driven delays on initial project schedule, as separate line items for each weather delay type, based upon Contractor’s proposed ways and means. Refer to Project Manual herein for additional requirements.

E. Area Separations: Provide a separate time bar to identify each major construction area for each major portion of the Work. Indicate where each element in an area must be sequenced or integrated with other activities.

F. Distribution: Following response to the initial submittal, print and distribute copies to the Architect, Owner, subcontractors, and other parties required to comply with scheduled dates. Post copies in the Project meeting room and temporary field office.

G. Submit with each payment request an updated construction project schedule with the above item plus the following items:

1. As-built project schedule of worked performed to date.
2. Adjusted project schedule showing schedule to complete work.
3. Number of weather delay days and audit of days used for each type of weather delay.
4. Updated Final Completion project schedule dates.

1.5 LIST OF PRODUCTS/MANUFACTURES

A. Not later than 35 days from the date of the notice to proceed and prior to installation of items, whichever is less, the Contractor shall provide a list showing the name of the manufacturer proposed to be used for each of the products, proposed for installation, and not specified or named in the contract documents including the name of manufacturer of each, for review by the Owner and Architect. The list shall be tabulated by, and be complete for each specification section. Where applicable, subcontractor's names shall be included in such list.

1.6 SHOP DRAWINGS

A. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.

B. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, shop work manufacturing instructions, coordination drawings (for on-site use), design mix information, contractor's engineer calculations, and similar drawings. Include the following information:

1. Dimensions.
2. Identification of products and materials included.
3. Compliance with specified standards.
4. Notation of coordination requirements.
5. Notation of dimensions established by field measurement.
6. Sheet Size: Except for templates, patterns and similar full- size Drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 36" x 48 (See herein for electronic submittals)".
7. Initial Submittal: Submit one black-line print for the Architect's review; the reproducible print will be returned, (see herein for electronic submittals).

    a. Structural steel, metal deck and miscellaneous steel. Submit black line print and 3 copies for initial submittal.

8. Final Submittal: Submit copies per enclosed requirements.
9. Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.

C. Coordination drawings are a special type of Shop Drawing that show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or function as intended.

1. Preparation of coordination Drawings include components previously shown in detail on Shop Drawings or Product Data.
2. Submit coordination Drawings for integration of different construction elements. Show sequences and relationships of separate components to avoid conflicts in use of space.

1.7 PRODUCT DATA

A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."

1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:

    a. Manufacturer's printed recommendations.
    b. Compliance with recognized trade association standards.
    c. Compliance with recognized testing agency standards.
    d. Application of testing agency labels and seals.
    e. Notation of dimensions verified by field measurement.
    f. Notation of coordination requirements.

2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
3. Preliminary Submittal: Submit a preliminary single-copy of Product Data where selection of options is required.
4. Submittals: Submit copies of each required submittal; submit hardcopies where required for maintenance manuals. The Architect will retain one, and will return the other marked with action taken and corrections or modifications required.

    a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

5. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.

    a. Do not proceed with installation until an applicable copy of Product Data applicable is in the installer's possession.
    b. Do not permit use of unmarked copies of Product Data in connection with construction.

1.8 MATERIALS SPECIFIED

A. The Contract is based on standards of quality established in the Contract Documents.

1. In agreeing to the terms and conditions for the Contract, the Contractor has accepted the responsibility to verify that the specified products will be available and to place orders for all required materials in such a timely manner as needed to meet his agreed construction schedule.
2. Neither the Owner nor the Architect has agreed to the substitution of materials or methods called for in the Contract Documents, except as they may specifically otherwise state in writing and when approved in advance of purchase and installation per requirements herein.

B. Colors: Provide finish selections indicated in the Project Manual and Plans.

1. Acceptable Manufacturers: The products and manufacturer’s specified in the Project Manual and Plans are for purposes of establishing color selection options and quality.
2. Manufacturer’s Standard colors and Finishes: Where the Project Manual or Plans specifies a manufacturer’s standard color or finish, the Architect makes no guarantee that matching colors or finishes are available as other non-listed manufacturer’s “standard colors” from the listing of acceptable manufacturers. The Contractor shall be responsible for providing colors matching those indicated in the Project Manual of listed acceptable manufacturer in the Project Manual at no additional cost.
3. Custom Colors: Where the Finish Schedule Project Manual and or Plan indicates a specific manufacturer’s colors, other acceptable manufacturer shall provide matching custom colors where a standard color in not acceptable at no additional cost.

1.9 SAMPLES

A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, small cuts or containers of materials, color range sets, complete units of repetitively used materials, units of work to be used for independent inspection and testing, and swatches showing color, texture and pattern.

1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to match the Architect's Sample. Include the following:

    a. Generic description of the Sample.
    b. Sample source.
    c. Product name or name of manufacturer.
    d. Compliance with recognized standards.
    e. Availability and delivery time.

2. Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

    a. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 6), that show approximate limits of the variations.
    b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.

3. Preliminary submittals: Where Samples are for selection of color, pattern, texture or similar characteristics from a range of full selection, submit three (3) full sets of choices for the material or product.

    a. Color selection shall be done upon complete submittal of materials and/or products needing color selection. It is the responsibility of the general contractor to see to it that required submittals for color selection shall be submitted to the Architect prior to time for implementation to not affect project schedule.
    b. Provide ninety (90) days time allowance for the Architect to work out preliminary schemes for College approval from receipt of complete color submittal of all items for this project.

4. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit 4 sets; one will be returned marked with the action taken.

5. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of construction.

    a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
    b. Sample sets may be used to obtain final acceptance of the construction associated with each set.

B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

1. Field Samples specified in individual Sections are special types of Samples. Field Samples are full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the Work will be judged.

    a. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.6 MISCELLANEOUS SUBMITTALS

A. Miscellaneous submittals are work related submittals (non-administrative) including warranties,

maintenance agreements, workmanship bonds, survey data and reports, quality testing and certifying reports, copies of industry standards, record drawings, field measurement data, operating and maintenance materials, overrun stock, and similar work related information and materials not process as shop drawings, product data or samples.

B. Warranties: Refer to "Products" section for specific general requirements on warranties, product/workmanship bonds, and maintenance agreements. In addition to copies desired for Contractor's use, furnish 2 executed copies, plus additional copies where required for maintenance manuals.

C. Standards: Where submittal of a copy of standards is indicated, submit a single copy for Architect's/Engineer's use. Where workmanship at project site and elsewhere is governed by standard, furnish additional copies to fabricators, installers and others involved in performance of the work.

D. Closeout Submittals: Refer to "Project Closeout" section for specific general requirements on submittal of closeout information, materials, tools, and similar items.

E. Schedule of Values: Contractor shall submit Schedule of Values per Instructions to Bidders,. Refer to General Conditions for minimum list of items to be included in Schedule of Values. Changes in Schedule of Values will not be allowed after Notice to Proceed is issued, unless directed by Architect and/or Change Order items which shall carry their own value as a line item on Schedule of Values.

F. Certified Payroll Records: Refer to “Prevailing wage rates and Apprenticeship Requirements” section for specific general requirements.

1. All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).
2. General Contractor shall provide certification that all requirements for prevailing wage have been made with each application for payment, not limited to paying prevailing wage, documentation of prevailing wage and furnishing electronically to Labor Commissioner.

1.12 ARCHITECT'S ACTION

A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Architect will review each submittal, mark to indicate action taken, and return.

1. Compliance with specified characteristics is the Contractor's responsibility.
2. Numerous serious corrections, or incomplete submittals, will necessitate resubmittal, in which case, only one copy will be returned with notations. Contractor shall resubmit required number of sets with corrections made with original mark-up submittal for review.

B. Conditions of Review: Architect's review is for general conformance with the design concept and contract documents. Review action on a submittal by the Architect does not in any way constitute a change order. Markings or comment shall not be construed as relieving the Contractor from compliance with the project plans and specifications, nor departures therefrom. The Contractor remains responsible for details and accuracy, for conforming an correlating all quantities and dimensions, for selecting fabrication processes for techniques of assembly, and for performing his work in a safe manner.

1. The Contractor is responsible for coordination of his work with and between that of all subcontractors and trades.
2. Absolutely no deviation from the Contract Documents will be permitted without written acknowledgement from Architect of receipt and Review of Written Notification from the Contractor to the Architect accompanying this submittal of all deviations contained in this submittal.

3. The Architect's review is not the final stage of acceptance for any part of the project, nor does it relieve the Contract responsibilities.
4. Contractor shall submit an itemized list of changes of items different than specified/indicated herein and on construction documents. List shall include items that are different and omitted. In the event items are not included on list, omitted from submittal and/or different than specified; Contractor shall be responsible for providing specified item(s). Liabilities subsequent to items omitted/or different shall be the responsibility of Contractor and shall be warranted a minimum of five (5) years or greater as prescribed by law. If no list is included with Shop Drawings, Architect assumes all items are as specified. Items discovered within five (5) years of Notice of Completion shall be corrected and provided by Contractor and Subcontractor at no cost to Owner.

C. Action: The Architect will identify each submittal with a uniform, self-explanatory action sheet. The sheet will be appropriately marked, as follows, to indicate the action taken:

1. No Exceptions Taken: If this box is marked, the work covered by the submittal may proceed provided it complies with the requirements of the contract documents; acceptance of the work will depend upon that compliance.
2. Make Corrections Noted: If box is marked, the work covered by the submittal may proceed provided it complies with both the Architect's/Engineer's notations or corrections to the submittal and with the requirements of the contract documents; acceptance of the work will depend on that compliance. Submit corrected copy for record if requested by the Architect.
3. Revise and Resubmit: If this box is marked, do not proceed with the work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise the submittal in accordance with the Architect's/Engineer's notations and resubmit without delay. Repeat if necessary.
4. Rejected: If this box is marked, do not proceed with the work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise the submittal or prepare a new submittal in accordance with the Architect's/Engineer's notations and resubmit to Architect.

    a. Do not permit submittals marked "Rejected” or, “Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.

5. Action Not Required: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Action Not Required".
6. Remarks: The review has occasioned comments that have been attached to the submittal. Process these comments as if they had been written on the submittal itself.
7. Requires Intermediate Submittal: Submittal does not meet all requirements for a complete approval. Submittal requires additional information for processing.

1.13 SUBSTITUTIONS

A. Substitution Request:

1. Cost to Contractor or Bidder for review of Substitution Request.

    a. Each review of a Substitution Request by the Architect will be billed to the submitter (Contractor or Bidder) at the current hourly rate on file at Architect’s office, two hour minimum for each review, whether approved or rejected.
    b. The Contractor will have a thirty-five (35) day period from the contract award date, in which to review the total contract documentation and issue any substitution or clarification requests to the Architect free of any financial charge.
    c. The Contractor will be expected to identify any omissions, anomalies, divergence or discrepancies in the Contract Documents within this time period and so inform the Architect, in writing.
    d. Any such omissions, anomalies, divergence or discrepancies not identified to the

Architect within this period shall be deemed to be included within the bid sum and not subject to a Change Order by the Architect.

1) The Architect may waive the review cost if, in his sole opinion, the submittal was complete and the time involved in the review was not substantial, and it was in the best interest of the Owner.

2. Content of Request:

a. Complete the attached Substitution Request Form (at the end of this Section), substantiating compliance of proposed substitution with Contract Documents.
b. For products, attach to the Substitution Request Form:

1) Product identification, including manufacturer's name and address.
2) Manufacturer's literature including product description, performance and complete test data and reference standards.
3) Samples.

c. For construction methods, attach to the Substitution Request Form:

1) Detailed description of proposed methods.
2) Drawings illustrating methods.

d. Attach to the Substitution Request Form an itemized comparison of proposed substitution with product or method specified.
e. Provide long-term serviceability data comparing side by side analysis with specified materials.
f. Provide manufacturer's experience in years with product with specific product formulation that is to be substituted.
g. Provide certified warranty issued for this specific project including application--precisely.
h. Provide system component analysis and statement the product is certified by Contractor to be compatible with all other items of assemblies where product/material/method is specified.

3. In making request for substitution, Contractor attests that:

a. Contractor has personally investigated proposed product or method, and determined that it is equal or superior in all respects to that specified.
b. Contractor will provide the same guarantee or warranty for substitution as for product or method specified.
c. Contractor will coordinate installation of accepted substitution into Work, making such changes as may be required for Work to be complete in all respects.
d. Contractor waives all claims for additional costs related to substitution which subsequently become apparent.
e. Contractor will pay all cost of Consultant to interpret physical properties to compare substitution with specified product, if requested by Architect.
f. Colors: The Contractor will match the color and/or finish available for the acceptable manufacturers listed in the Project Manual and/or Plans as a custom color and at no additional cost to the Owner.

4. Submit three (3) copies of Substitution Request prior to submittals required.

B. Acceptance of Substitutions

1. Procedures:

a. The Contract is based on materials, equipment and methods described in the Contract Documents.

b. Architect will consider proposals submitted in accordance with the Substitution Request.
c. Substitutions will be considered when submitted within 35 days after date of Contract.
d. Architect is solely responsible for judging the acceptance of substitutions.
e. Substitute materials, equipment or methods shall not be used unless such substitution has been specifically approved for this Work by the Architect and DSA.
f. Substitutions will not be considered if:

1) They are indicated or implied on product submittals without formal request submitted in accordance with Substitution Request.
2) Acceptance will require substantial revision of Contract Documents.
3) They are submitted more than 35 days after date of Contract, unless the specified or drawing item has been verified to be discontinued or is otherwise unavailable, or the Owner desires a cost savings for the product or system.

g. Substitutions may be subject to DSA approval if Structural Safety, Fire/Life Safety or Accessibility is impacted.

2. Time to review: Architect shall be allowed twenty-eight (28) calendar days to review each substitution submittal. In the event review cannot be completed and more information is requested by the Architect to complete this review, upon receipt of requested information, twenty-eight (28) calendar days will be allowed for additional review after receipt of requested and complete information.

PART 2 - PRODUCTS

2.1 SUBSTITUTION REQUEST FORM

See the form attached to the end of this Section.

PART 3 - EXECUTION

3.1 GENERAL

The attached form will be reproduced by the Contractor or any of his Subcontractors for any and all proposed substitutions. No other forms will be accepted.

SUBSTITUTION REQUEST

DATE: _____ Substitution Request # _____

ATTN: Jose Vargas
3434 Truxtun Ave Suite 240
Bakersfield, CA 93301

PROJECT: Bookstore Remodel
Cerro Coso College
Kern Community College District

PROJECT#: 550-0050 NOA DATE: _____

We hereby submit for your consideration the following product/ manufacturer instead of the one(s) specified in the Project Manual/ Plans:

Item: _____ Section #: _____

Manufacturer: _____ Sheet #: _____

A. Reason for not providing specified product: _____

B. Proposed Substitution: _____

C. Cost shall be shouldered by the undersigned for changes to the building design, including engineering and detailing costs caused by the requested substitution. (Negative response maybe cause for rejection.)

☐ Yes ☐ No Explain: _____

D. Provide the following with Substitution Request Package:

*NI –Not Indicated;
N/A – Not Applicable

		Checklist for Architect			
		Yes	No	N/A	NI
1	Attached data includes product data, specifications, photographs, samples, code approvals and laboratory test data adequate for evaluation of request. All test data shall be complete with relevant test(s).	☐	☐	☐	☐
2	Attach data includes description of change to contract documents that proposed substitution will have. Include complete information on changes to drawing and/ or project manual which proposed substitution will require for proper installation.	☐	☐	☐	☐
3	Does proposed substitution affect dimensions shown on contract documents?	☐	☐	☐	☐
4	Does proposed substitution affect other trades and is it clear on the request form? Provide system component compatibilities.	☐	☐	☐	☐
5	Does proposed substitution affect local availability of service and maintenance including where nearest service representative is located and travel time to project site?	☐	☐	☐	☐
6	Attached cost data with detail breakdown of differential, either plus or minus.	☐	☐	☐	☐
7	If substitution is of higher quality, will this impact future replacement cost?	☐	☐	☐	☐
8	What is the impact of substitution on construction schedule?	☐	☐	☐	☐
9	Provide long term serviceability data compared with specified material.	☐	☐	☐	☐
10	Provide manufacturing experience in years with product with specified material product formation substituted.	☐	☐	☐	☐
11	Provide certified product warranty equal or greater to what is required for this project.	☐	☐	☐	☐
12	Is a consultant required to integrate physical properties to compare material/product?	☐	☐	☐	☐
13	Will the Substitute Manufacturer provide colors matching color selection of listed manufacturers in Project Manual?	☐	☐	☐	☐

E. The undersigned certifies that the following paragraphs, unless modified by attachments, are correct:

1. The undersigned will compensate the Architect, Architect's staff, and consulting engineers at Architect's rate per hour for changes required to the building design, including engineering design, detailing, and construction costs caused by the requested substitution. The Architect is herein defined as any of those firms or individuals listed by reference on the Directory, including all Consultants identified herein.
2. Attach all cost data with explanations if different from Specified or Drawing item. Include in that explanation a discussion on quality or proposed substitution and cost differential.
3. Attach all cost data with explanations if different from Specified or Drawing item. Include in that explanation a discussion on quality or proposed substitution and cost differential.
4. The undersigned will pay for any subsequent changes in incorporating the proposed substitution that were not apparent at the time of approval into the Work, including compensation to the Architect and consulting agent(s) as described in item 2 above.
5. The undersigned certifies that the substituted material/product/method is compatible with all the items in the system application's specified use in this project.
6. Failure to provide complete substitution package per above requirements are ground for rejection.

The undersigned states that the function, appearance and quality are equivalent or superior to the construction document item. The undersigned agrees to waive all claims for additional costs related to accepted substitution, including cost associated with changes to building design, engineering, or details, which may subsequently become apparent. (Negative response maybe cause for rejection.)

Submitted by: _____ Approved by General Contractor: _____
Signature

Signature: _____ Signed by: _____ Date: _____
Address: _____ Address: _____

Phone: _____ Fax: _____ Phone: _____ Fax: _____

ARCHITECT'S RESPONSE:

Substitution Request #: _____

Date: _____

Reviewed by: _____

Remarks:

- ☐ Accepted – Submit as construction submittal
- ☐ Accepted as noted – Submit as construction submittal
- ☐ Rejected – Use specified material
- ☐ Received too late – Use specified material

END OF SECTION 013300

SECTION 015050- TEMPORARY FACILITIES

11/01/16

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.

B. Temporary construction and support facilities required include but are not limited to:

1. Temporary heat.
2. Waste disposal services.
3. Construction aids and miscellaneous services and facilities.
4. Temporary access to occupied buildings.
5. Temporary roof and envelope of building.
6. Dust control measures.

C. Security, protection and miscellaneous facilities required include but are not limited to:

1. Temporary fire protection.
2. Barricades, warning signs, lights.
3. Environmental protection.
4. Enclosure fence at site work around each portion of site work.
5. Temporary barriers around rooms with Owner access during construction to keep Staff and students from entering construction area.
6. Refer to Section 018000 for Construction Waste, Reduction, Disposal and Recycling for additional requirements.

1.3 QUALITY ASSURANCE

A. Regulations: Comply with industry standards and applicable laws and regulations if authorities having jurisdiction, including but not limited to:

1. Building Code requirements.
2. Health and safety regulations.
3. Utility company regulations.
4. Police, Fire Department and Rescue Squad rules.
5. Environmental protection regulations.
6. California State Accessibility standards, Title 24.
7. 2019 CBC Chapter 33.
8. 2019, Title 24 CFC Chapter 14.

B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical Facilities."

1. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared jointly by AGC and ASC, for industry recommendations.
2. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with California Electric Code (CEC).

1.4 PROJECT CONDITIONS

A. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

B. Site Access: Shall be coordinated with the Director of Maintenance and Operations. All areas damaged by construction work shall be remedied to his satisfaction. Access by handicapped shall be maintained during construction. Architect shall approve all temporary handicapped access to project area prior to implementing any work.

C. All on site utilities usage shall be paid by Owner limited to water, natural gas, sewer, storm drain and electricity. Contractor is responsible for temporary connections and disconnection. Return temporary connection to pre-construction conditions.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Open-Mesh Plastic Fencing: Plastic 2-inch fabric fencing, 6 feet high with galvanized steel pipe post, 1-1/2" O.D. for line and corner post.

2.2 EQUIPMENT

A. Electrical Power Cords: Provide grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas where construction activities are in progress.

B. First Aid Supplies: Comply with governing regulations.

C. Fire Extinguishers: Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures.

PART 3 - EXECUTION

3.1 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

A. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 deg F (27 deg C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner.

3.2 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Temporary Fire Protection: Until fire protection needs are supplied by permanent facilities, install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations." Comply with 2013 CFC Chapter 14 during construction.

B. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. The Contractor shall provide, install and maintain for the duration of the work, as required, all lawful or necessary barricades and railings, lights, warning signs and signals, and shall take all other precautions as may be required to safeguard persons, the site and adjoining property, including improvements thereon, against injuries and damages of every nature whatsoever. The Contractor shall not obstruct required exitways of adjacent structures.

3.3 OPERATION, TERMINATION AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.

B. Termination and Removal: Unless the Architect requests that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than date of Notice of Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.

END OF SECTION 015050

SECTION 017700 - PROJECT CLOSEOUT 10/26/15

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 &1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:

1. Project Completion and Acceptance
2. Inspection procedures.
3. Project record document submittal(s).
4. Operating and maintenance manual submittal(s).
5. Submittal of warranties.
6. Statement of extra materials delivered to Owner, accepted and signed by Owner
7. Final cleaning.

B. Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions 0 through 33.

1.3 PROJECT COMPLETION

A. Contractor shall notify the Architect in writing when the project is acceptably completed; all work scope is done and ready for Project Inspector and Contractor to make a list of items to be corrected.

B. The Project Inspector and Contractor shall make a list of items to be corrected and finish any items discovered incomplete. These items shall be completed and corrected prior to Architect and Consultants preparing a Final Inspection and Punch List Preparation. Contractor shall notify Architect in writing when all items are completed and corrected as well as items completed and corrected from Project Inspector and Contractor list of items previously prepared.

C. Architect's field representatives (Architectural, Mechanical, Electrical, and other consultants) will make a field survey of the project to confirm that it has reached a state of completion, and items for "B" above have been done, in order to eliminate an unreasonably long Punch List on final inspection.

1. All items in scope of work have been completed and accepted by Contractor and Project Inspector.
2. All building systems are operational, tested and commissioned.
3. Cleaning of building, grounds and related items completed except when approved by architect in writing in advance of field survey. Contractor’s temporary measures may be left in place until final demobilization but a condition on removal for final payment processing.
4. Contractor to provide a written status update of project closeout check list.

D. If not ready, the Architect will give the Contractor a written brief summary of what must be

done for the project to be considered complete, enough for the Punch List preparation.

E. When, in the opinion of the Architect, the job is ready for the Punch List preparation, a Punch List of items requiring completion and/or correction will be prepared. (This Punch List will be made as specific and complete as possible, and will include the listing of all specified closing items required of the Contractor, such as Record Drawings, maintenance manuals, written guarantees, etc.) Any items observed or noted subsequent to Punch List preparation, shall also be corrected prior to re-inspection, unless the Architect determined, in writing, that any such items properly fall into the category of work to be corrected during the warranty/guarantee period.

1. Architect's Punch List preparation will be scheduled and respective contractors, sub-contractors and vendors shall be present during the Punch List inspection. Sub-Contractors, contractors and vendors will be required to show operational status of items in project scope of each respective discipline.
2. Mechanical, Electrical, and other consultants Punch List preparation will be scheduled and respective sub-contractor, contractors and vendors shall be present during the Punch List inspection. Sub-Contractors, contractors and vendors will be required to show operational status of items in project scope of each respective discipline.
3. All Punch List items shall be completed and/or corrected before Contractor calls for Punch List re-inspection.

    a. Architect shall be notified in writing by Contractor when all Punch List items are complete and project is ready for punch list back check by architect and consultants. Architect shall schedule punch list back check with contractor within 10 calendar days from receipt of written notice from Contractor.
    b. Architect will allow contractor two, (2), punch list back check visits of all items. Any additional site visits for items not completed and acceptable to Architect after second site visit will charged to the contractor as a negative change order for time spent by Architect to do re-inspections and office related work including reimbursable expenses incurred due to additional site visits.

1.4 PROJECT ACCEPTANCE AND NOTICE OF COMPLETION

A Notice of Completion will not be prepared nor moved forward for Owner approval until all of the following are complete:

1. Project Closeout 100% complete.
2. Punch list items 100% complete.
3. Record documents approved and delivered.
4. All warranties and guarantees have been delivered and accepted by Owner and Architect.
5. OWNER is able to occupy all portions of the project as intended on Construction Documents.
6. Contractor in direct contract with the owner upon completion of work shall execute certifications as follows:

    a. Asbestos Certification shall be used for documentation of non-asbestos materials used in project.
    b. PCB Certification shall be used for documentation of non-PCB materials used in project.
    c. Lead Certification shall be used for documentation of non-lead materials used in project.
    d. In-Service Certification Forms shall be used for all documentation of in-

service activities. Copies of forms shall be included in maintenance and operation manuals.

e. Prevailing Wage Certification shall be used for conformation/certification that prevailing wage were paid for this project.

f. Affidavit of Payment of Debts and Claims and Release of Stop Notices shall be notarized and submitted as part of the project closeout requirement.

g. Extra Materials Receipt shall be signed by College M&O Director.

B. Notice of Completion shall be prepared and approved by Owner prior to recording. The official project acceptance date shall be the date of Owner acceptance of the project and authorization to filing of the Notice of Completion. Owner shall record Notice of Completion within 10 days of acceptance of project as being complete. All warranties start dates will be Date of recordation of Notice of Completion.

C. The project shall be accepted by the Owner who shall authorize after acceptance of the project the subsequent filing of the Notice of Completion. The final payment shall be made thirty-five (35) days from the date of recordation of the Notice of Completion, provided that: The Contractor shall furnish satisfactory evidence that all claims for labor and materials have been paid and that no claims shall have been presented to the Owner by any person or persons based upon any act or omission of the Contractor, and no Stop Notices or claims shall have been filed against said work or the property whereon it was done.

1. The Contractor in direct contract with the Owner must record and file with the Owner an Affidavit of Payment of Debts and Claims and Release of Stop Notices prior to request for project acceptance is considered by the Board of Trustees. By this document, the contractor hereby certifies that on date of document recordation, he/she has been paid in full less retainage for all materials and equipment furnished, for all labor and services performed, and for all known indebtedness and claims against the undersigned for damages arising in any manner on or against the Project, its land, improvements, and equipment of any kind.
2. All others not limited to sub-contractors, lower tier contractors, suppliers, vendors and others providing services, materials, equipment and related items must record their liens and serve owner stop notice within thirty (30) days of the date the Notice of Completion is recorded to place and person indicated in project manual herein. (Civil Code §3116).

1.5 RECORD DOCUMENT SUBMITTALS

A. General: Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Architect's reference during normal working hours.

B. Record Drawings: Maintain a clean, undamaged set of black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

1. Mark record sets with erasable pencil.
2. Mark new information that is important to the Owner, but was not shown on Contract Drawings or Shop Drawings.
3. Note related Change Order numbers where applicable.

4. Submit one copy of record drawing for Architect's review.

    a. Show all underground utility locations and routings by horizontal and vertical dimensions.
    b. Show all overhead utility locations and routings by horizontal and vertical dimensions.
    c. Clearly indicate at each affected detail and other Drawings a full description of changes made during construction. Call attention to each entry by drawing a "cloud" around the area(s) affected.

5. Once reviewed and approved by the Architect, organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set. Provide Owner with two (2) copies black and white, original (1), original red-lined with changes and two flash drives of scanned black and white copies.

C. Record Product Data: Maintain one copy of each Product Data submittal. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned later by direct observation. Note related Change Orders and mark-up of record drawings and Specifications.

1. Upon completion of mark-up, submit one complete set of record Product Data to the Architect for the Owner's records.

D. Record Sample Submitted: Immediately prior to the date or dates of Substantial Completion, the Contractor will meet at the site with the Architect and the Owner's personnel to determine which of the submitted Samples that have been maintained during progress of the Work are to be transmitted to the Owner for record purposes. Comply with delivery to the Owner's Sample storage area.

E. Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Architect for the Owner's records.

1.6 PROJECT CLOSEOUT BINDER(S) SUBMITTAL

A. Submit requirements per project manual section(s) one copy in a binder(s) and two (2) copies of scanned data in binders on flash drives. See Project Closeout form at the end of this section for additional requirements. Note that this form shall be updated with additional materials and sections once Contractor starts submitting closeout documents to include issued addenda, RFPs, FCDs and other items added in the bid document during construction. All required number of years for warranty shall be provided by the Contractor. In the event this conflicts with manufacturer's warrant, more restrictive will prevail. If manufacturer will not meet requirements, Contractor shall take full responsibility for additional warranty requirement above what manufacturer will provide.

1. Binder(s)

    a. Part 1 - Technical Sections

1) Organize sections items per CSI Format descending order.

b. Part 2 - General Requirement items

1) Tab in order per project list herein at end of this section.

2. Binder(s) shall have cover sheet inserted in front face and side label. Cover sheet shall have the following information:

a. Project name
b. College name
c. Date of Notice of Completion
d. Labeled “Part 1”, in the event of multiple binders for a Part, add volume number and list sub-binders on title sheet with name of each specific binder.
e. General Contractor’s name.
f. Index of items in binder.

3. Labeled divider tabs shall be provided for each section as listed on index on cover.
4. Each applicable section will have the following documents in order:

a. Subcontractor’s Warranty
b. Product data
c. Manufacturer’s warranty

1) Each installed equipment, especially for Divisions 21, 22, 23 and 26, shall have warranties from manufacturers with project name stated in the certificate. All forms submitted to the manufacturers to secure warranty shall be enclosed as part of project closeout.

d. Proposal for continuing services and/or post construction inspection dates – if applicable
e. Tests/ reports/ certifications/ agreement between Contractor/ Manufacturer/ Subcontractor to repair and replace
f. Shop drawings
g. Cleaning data
h. Receipt of extra material acceptance by the M & O director – see form at the end of section
i. Training attendees’ form – see form at the end of section
j. Other document required:

1) Maintenance data
2) Emergency Instructions
3) Spare parts lists
4) Wiring diagram
5) Inspection procedure
6) Recommended “turn around cycles”
7) Lubricants, special tools
8) Control sequences
9) Hazards
10) Fixture lamping schedule
11) Proof of training for equipment operation with list of attendees from College staff

C. Submit general requirements in another binder.

1. Binder shall have a cover sheet and side label. Cover shall have the following information:

a. Project name
b. College name
c. Date of Notice of Completion
d. Labeled “Part 2”
e. General Contractor’s name

2. Binder shall have table of contents. This binder will contain the following:

a. Demobilization information with General Contractor’s Letterhead and signed by Project Manager.

1) Indicate dated for the following information:

a) Removal of temporary office
b) Removal of temporary fence barricades
c) Disconnect/safing temporary utilities
d) Repair temporary staging to pre-construction or specified condition
e) Removal of temporary toilets
f) Removal of miscellaneous construction debris/ excess materials
g) Removal of project sign, deliver to Owner if requested
h) Removal of miscellaneous project signs
i) Removal of trash dumpster

b. Instructions for Operating equipment signed off by College Staff (see Project Closeout form) with General Contractor’s Letterhead and signed by Project Manager.
c. Certification of no asbestos used or substituted
d. Certification of no lead containing products used or substituted
e. Certification of no PCB containing products used or substituted
f. Certification of substitutions made on project, if none state so
g. All substitution products shall be listed and shall indicate substitution number and date approved by the Architect.
h. Notarized affidavit of payment of debts and claims and release of stop notices
i. Prevailing wage reports/ documents
j. Verified DSA report
k. Consent of surety to final payment
l. Statement of final liquidated damages settlement
m. Final utility meter readings signed by Project Inspector

1.7 PROJECT CLOSEOUT NOTIFICATION, SURETY NOTIFICATION

A. If requested in writing, the contractor will be given a project Close-out check list of items to be completed prior to project being accepted as complete. Contractor shall start project closeout no later than 90% completion of project and be complete prior to project punch list preparation/walk. This is contractor’s first notice. Notice of Completion will not be filled until project closeout is complete.

B. The contractor will be given a 20 calendar day notification that the project closeout is incomplete and notification that owner will complete project closeout work incomplete and assess contractor additional architectural and engineering fees incurred completing work not complete and per construction documents. Copy will be sent to surety.

C. The contractor will be given a final 10-day notice to complete all project closeout items. The estimated amount of costs will be indicated therein that the owner will be spending for completing the project closeout. Items done by the owner and additional architect's fees will be deducted from funds due contractor. Copy will be sent to surety.

D. If project closeout is not complete after deadline in Item "C" above, the notice of completion will be filed listing incomplete items. Owner will complete project closeout and deduct cost incurred from funds held. Balance of funds will be distributed per Contract Documents. Surety will be notified of actions taken.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 CLOSEOUT PROCEDURES

A. Operating and Maintenance Instructions: Arrange for each installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include a detailed review of the following items:

1. Maintenance manuals.
2. Record documents.
3. Spare parts and materials.
4. Tools.
5. Lubricants.
6. Fuels.
7. Identification systems.
8. Control sequences.
9. Hazards.
10. Cleaning.
11. Warranties and bonds.
12. Maintenance agreements and similar continuing commitments.

B. As part of instruction for operating equipment, demonstrate the following procedures:

1. Start-up.
2. Shutdown.
3. Emergency operations.
4. Noise and vibration adjustments.
5. Safety procedures.
6. Economy and efficiency adjustments.
7. Effective energy utilization.

3.2 FINAL CLEANING

A. General: General cleaning during construction is required by the General Conditions and included in Section "Temporary Facilities".

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

1. Complete the following cleaning operations before requesting inspection for Certification of Notice of Completion.

a. Remove labels that are not permanent labels.
b. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
c. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
d. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
e. Clean the site, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.

C. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.

D. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.

3.3 FORMS

A. In-Service Certification Forms shall be used for all documentation of in-service activities. Copies of forms shall be included in maintenance and operation manuals.

B. Asbestos Certification shall be used for documentation of non-asbestos materials used in project.

C. PCB Certification shall be used for documentation of non-PCB materials used in project.

D. Lead Certification shall be used for documentation of non-lead materials used in project.

E. Prevailing Wage Certification shall be used for conformation/certification that prevailing wage were paid for this project.

F. Affidavit of Payment of Debts and Claims and Release of Stop Notices shall be notarized and submitted as part of the project closeout requirement.

G. Project Closeout Liquidated Damages Contract Sum-Days Calculation shall be used for liquidated damages computation.

H. Extra Materials Receipt shall be used for documentation of extra materials required by construction document; to be submitted to College M&O Director.

IN-SERVICE CERTIFICATION

Specification Section No._____

Project: Bookstore Remodel
Date: _____

Owner: Kern Community College District
Architect: AP Architects
File No: _____
Contractor: _____
Project No: 550-0050
Inspector: _____
DSA Application No: _____

In-Service Conducted By:_____

Materials Reviewed: (Check Applicable Boxes)

- ☐ Record Drawings
- ☐ Warranties
- ☐ Maintenance Agreement
- ☐ Operation & Maintenace Manuals
- ☐ Special Tools and Parts
- ☐ Safety Procedures
- ☐ Cleaning Procedures
- ☐ Identification Systems
- ☐ Start-Up
- ☐ Control Sequences
- ☐ Shut Down
- ☐ Controls Manipulation
- ☐ Emergency Procedures
- ☐ Noise/Vibration Adjustment
- ☐ Effective Energy Utilization

Attendees (Please print name and sign below)

1. District Facilties Representative _____
2. Site Representative _____
3. District Maintenance Representatives _____ (Plumbing) _____ (Mechanical) _____ (Electrical) _____ (Grounds)
4. Others Present (P.I. General Contractor) _____ _____

Meeting Date_____ Time of Start_____ Time of Completion_____

I certify that the above named in-service covered all aspects of the specialty for which it was convened.

Signature _____ Date _____

ASBESTOS CERTIFICATION

Specification Section No._____

Project: Bookstore Remodel
Date: _____

Owner: Kern Community College District
Architect: AP Architects
File No: _____
Contractor: _____
Project No: 550-0050
Inspector: _____
DSA Application No: _____

To: _____

From: _____

Subject: **Asbestos Containing Building Materials Letter**

I hereby certify that, to the best of my knowledge, the materials furnished and/or installed

by _____ or its
(Name of Contractor)

subcontractor for _____ located at
(Name of Project)

_____ do not contain Asbestos-
(Project Address)

Containing Building Materials.

Signed: _____

Position: _____

Dated: _____

PCB CERTIFICATION

Specification Section No._____

Project:	Bookstore Remodel	Date:	
Owner:	Kern Community College District		
Architect:	AP Architects	File No:	
Contractor:		Project No:	550-0050
Inspector:		DSA Application No:	

To: _____

From: _____

Subject: **PCB-Containing Building Materials Letter**

I hereby certify that, to the best of my knowledge, the materials furnished and/or installed

by _____ or its
(Name of Contractor)

subcontractor for _____ located at
(Name of Project)

_____ do not contain PCB-
(Project Address)

Containing Building Materials.

Signed: _____

Position: _____

Dated: _____

LEAD CERTIFICATION

Specification Section No._____

Project:	Bookstore Remodel	Date:	
Owner:	Kern Community College District		
Architect:	AP Architects	File No:	
Contractor:		Project No:	550-0050
Inspector:		DSA Application No:	

To: _____

From: _____

Subject **Lead Containing Building Materials Letter**

I hereby certify that, to the best of my knowledge, the materials furnished and/or installed by _____ or its
(Name of Contractor)

subcontractor for _____ located at
(Name of Project)

_____ do not contain Lead-
(Project Address)

Containing Building Materials.

Signed: _____

Position: _____

Dated: _____

PREVAILING WAGE CERTIFICATION

Project:	Bookstore Remodel	Date:	
Owner:	Kern Community College District		
Architect:	AP Architects	File No:	
Contractor:		Project No:	550-0050
Inspector:		DSA Application No:	

To: _____

From: _____

Subject **Prevailing Wage Certification Letter**

I hereby certify that, all payments made to employees of Contractor and subcontractors are based on prevailing wage per Article 2 Chapter 1, Part 7, Division 2 of the California Labor Code and all contractors and subcontractors did furnished electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement). Prevailing wage records for each pay request processed are on file and available upon request. Contact _____
(Name of Contact Person)

with _____ to request copies. Contact number is
(Contractor's Name)

_____ and office address is located at _____
(Office number)

_____.
(Contractor's Address)

Signed: _____

Position: _____

Dated: _____

AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS AND RELEASE OF STOP NOTICES

Project:	Bookstore Remodel	Date:	
Owner:	Kern Community College District		
Architect:	AP Architects	File No:	
Contractor:		Project No:	550-0050
Inspector:		DSA Application No:	

By this instrument, the undersigned hereby certifies that on this date, he/she has been paid in full less retainage for all materials and equipment furnished, for all labor and services performed, and for all known indebtedness and claims against the undersigned for damages arising in any manner on or against the PROJECT, its land, improvements, and equipment of any kind. Therefore, the undersigned does hereby waive and/or release any and all claims and/or stop notices against the PROJECT as of the _____ day of _____, in the year of 20____.

COMPANY: _____

BY: _____

TITLE: _____

STATE OF _____

COUNTY OF _____

Before me the undersigned authority on this date personally appeared _____, Known to me to the person whose name is subscribed to the foregoing instrument, and being first duly sworn, acknowledged to me that he executed the same for the purposes and consideration therein expressed and declared to me that the statements contained therein are true.

Sworn and subscribed to before me this ____ day of _____ year of 20____.

_____
Notary Public in and for said
State and County

My commission expires: _____

EXTRA MATERIALS RECEIPT

Specification Section No._____

Project: Bookstore Remodel

Date: _____

Owner: Kern Community College District

Architect: AP Architects

File No: _____

Contractor: _____

Project No: 550-0050

Inspector: _____

DSA Application No: _____

List of Materials to surrender to M&O office/Director:

Item #	Qty.	Description

I certify that the above extra materials are all in good condition and meet the required quantity per construction documents.

Submitted by:

Signature _____ Date _____

Received by:

Signature _____ Date _____

PROJECT CLOSEOUT CHECKLIST

pub.rev.04/05/04

PROJECT: Bookstore Remodel
PROJECT NO: 550-0050
CONTRACTOR:

DATE INITIAL REQUEST:
DATE DUE BACK:

STATUS:

X Initial request for documents
. Incomplete see below
. Accepted as complete
Date completed:

LEGENDS:

C - Contractor
S - Subcontractor
O - Owner
A - Architect
E - Engineer
PI - Project Inspector
M - Manufacturer

PROJECT CLOSEOUT

PART 1- General Closeout Items

Provide information as required in the Project Manual. See checklist below for items required. Tabulate each section and provide information required.

1. Project identification sheets
    a. Project name, location, date of start/completion of construction
    b. Copy of Completed Project Closeout Checklist
    c. Copy of Notice of Completion
2. Project contacts, names, address, phone numbers, fax number, email and web sites.
    a. General contractor
    b. Sub-contractors/lower tier sub-contractors
        1) List by CSI format
    c. Suppliers direct to Contractor
3. Project Warranties
    a. List by CSI format
4. Maintenance Agreements
    a. List by CSI format
5. Record Drawings flash drive
    a. Plastic sleeve with record drawings scanned to flash drive.
6. Forms
    a. In-Service Certification Forms shall be used for all documentation of in-service activities. Copies of forms shall be included in maintenance and operation manuals.
    b. Asbestos Certification shall be used for documentation of non-asbestos materials used in project.
    c. PCB Certification shall be used for documentation of non-PCB materials used in project.
    d. Lead Certification shall be used for documentation of non-lead materials used in project.
    e. Affidavit of Payment of Debts and Claims and Release of Stop Notices shall be notarized and submitted as part of the project closeout requirement.
    f. Affidavit of Substitutions shall be notarized and submitted as part of the project closeout requirement.
    g. Extra Materials Receipt shall be used for documentation of extra materials required by construction. document; to be submitted to M&O Director.
        1) Provide form for each material by Technical Section
    h. Training Attendees Form shall be used for documentation of College staff that participated in the training scheduled and coordinated by the Contractor.
        1) Provide form for each material by Technical Section.

PART 2 - Technical Section Close out items

Provide information as required in technical section of the Project Manual. See checklist below for items required. Tabulate each section and provide information required. Warranty information will be provided in Binder one under tab 3 and also in each technical section. Information requested herein shall be the minimum requirements.

SECTION	SECTION NAME	BY	DATE COMPLETED
018000	CONSTRUCTION WASTE REDUCTION/ DISPOSAL & RECYCLING		
	Construction Waste Management Plan	**C**	
	Construction Waste Management Worksheet(s)	**C**	
	Construction Waste Management Acknowledgement	**C**	
084113	ALUMINUM ENTRANCES AND STOREFRONTS		
	Warranty manufacturer's-3 years	**M**	
087100	DOOR HARDWARE		
	Supplier written verification that all hardware is functioning properly and installed per manufacturer	**S**	
	Disc of final hardware list	**S**	
	Warranties:		
	Closers - 10 years	**S**	
	Exit devices - 3 years	**S**	
	Hinges - life of building	**S**	
	All other hardware - 2 years	**S**	
	Tools & instructions of each device/hardware item	**S**	
	Evidence for six month adjustment	**S**	
	Key transcript:		
	Owner instruction in adjustment/maintenance	**S**	
	Tentative date for 6-month 24-month adjustment of hardware/report	**S**	
088000	GLASS AND GLAZING		
	Insulated glass warranty 5 year	**M**	
095113	ACOUSTICAL PANEL CEILINGS		
	Extra material 2% (three case minimum each type of ceiling) (see form)	**S**	
099000	PAINTING		
	Extra materials unopened containers - accepted and signed by M&O	**S**	

PART 3 - Specific Close out items

RECORD DRAWINGS –Full size drawings.

Provide original red lined record drawings, full size and one (1) black and white copy, full size. Provide two copies, (2) on flash drive of digitally color scanned record drawings.

PREVAILING WAGE CERTIFICATION:

Prevailing Wage Certification: Statement shall be used for conformation/certification that prevailing wage were paid for this project.	**C**	

PART 4 – Final Payment

FINAL PAYMENT:

The following items shall be completed and accepted prior to acceptance of final pay request and consideration for payment by owner. All the above items shall be complete and accepted by Architect and Owner

Affidavit of Payment of Debts and Claims and Release of Stop Notices	**C**	
Consent of Surety to Final Payment	**C**	
Final Liquidated Damages settlement statement	**C**	
Final Pay Request	**C**	`
File Notice of Completion	**O**	

END OF SECTION 017700

SECTION 017800 - WARRANTIES AND BONDS 10/26/15

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer’s standard warranties on products and special warranties.

1. Refer to the General Conditions for terms of the Contractor's special warranty of workmanship and materials.
2. General closeout requirements are included in Section "Project Closeout."
3. Specific requirements for warranties for the Work and products and installations that are specified to be warranted, are included in the individual Sections of Divisions 2 through 33.
4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
5. Items that are omitted and/or different than specified/indicated herein and on Construction Documents and items not indicated as a change on Submittals, shall be warrantied as required in Sections 006002 and 013300.

B. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

C. Notwithstanding any tests, approvals, certificates, commissioning, inspection or otherwise by the Owner, Architect or any other consultant employed by or on behalf of the employer, the Contractor shall be and remain fully and exclusively responsible and liable for ensuring that his works, and all goods and materials therein are in every respect and detail in accordance with the Contract Documents, and no such tests, approval certificates, commissioning, inspection or otherwise shall in any way diminish or negate the Contractor's responsibility or liability as foresaid.

1.3 WARRANTY REQUIREMENTS

A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.

B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall

not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.

1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.

E. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

1.4 SUBMITTALS

A. Submit written warranties to the Architect prior to the date certified for Notice of Completion. If the Architect's Certificate of Notice of Completion designates a commencement date for warranties other than the date of Notice of Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.

1. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Architect within fifteen days of completion of that designated portion of the Work.

B. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner through the Architect for approval prior to final execution.

1. Refer to individual Sections of Divisions 2 through 33 for specific content requirements, and particular requirements for submittal of special warranties.

C. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.

1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
2. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS, the Project title or name, and the name of the Contractor.
3. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 - PRODUCTS (Not Applicable).

PART 3 – EXECUTION

3.1 FORMS

A. Project Warranty Form, see attached.

B. Subcontractor Warranty Form, see attached.

END OF SECTION 017800

PROJECT WARRANTY

Project: Bookstore Remodel
Cerro Coso College
Owner: Kern Community College District
Architect: AP Architects
Contractor:
Inspector:

Date:
File No:
Project No: 550-0050
DSA Appl No:

_____(Contractor) hereby warrants to the Owner that materials and equipment furnished under the Contract in the _____ (Name of Project) are of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work is free from defects not inherent in the quality required or permitted, and that the Work conforms with the requirements of the Contract Documents. Work not conforming to these requirements, including substitution not properly approved and authorized, may be considered defective. This warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage.

If, within ___ year(s) after the date of Notice of Completion of the Work or designated portion thereof, or by terms of an applicable special warranty required by the Contract Documents extending this time period, and of the Work is found to be not in accordance with the requirements of the Contract Documents or proves to be defective in materials or workmanship, the Contractor expressly agrees to correct it, without expense to the Owner, promptly after receipt of written notice from the Owner or his agent to do so unless the Owner has previously given the Contractor written acceptance of the condition. This period of ____ year(s) shall be extended with respect to portions of the Work first performed after Notice of Completion by the period of time between Notice of Completion and the actual performance of Work. This obligation of the Contractor to correct the Work shall survive acceptance of the Work under the Contract and termination of the Contract. The Owner shall give such notice promptly after discovery of the condition.

Nothing contained in this warranty shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the time period of ___ year(s), or special extended time periods required by the Contract Documents, for correction of the Work as described above relates only to the specific obligation of the Contractor to correct the work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

In the event of the Contractor's failure to comply with the conditions of this warranty within 5 days after being notified in writing by the Owner or his agent, the Contractor hereby authorizes the Owner to proceed to have said defects repaired and made good at the Contractor's expense and the Contractor will honor and pay the costs and charges therefore upon demand.

The term "Work" means the construction and services required by the Contract Documents and includes all other labor, materials, equipment and services provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or part of the total construction performed under the Contract Documents.

Date _____

_____
Contractor

_____
Address

_____

_____
Telephone

_____
Signature of Contractor

_____
Title

SUBCONTRACTOR WARRANTY

Project: Bookstore Remodel
Cerro Coso College
Owner: Kern Community College District
Architect: AP Architects
Contractor:
Inspector:

Date:
File No:
Project No: 550-0050
DSA Appl No:

_____ (Subcontractor) hereby warrants to _____ (General Contractor) that materials and equipment furnished under the Contract, pursuant to Specifications Section(s) _____ in the _____ (Name of Project) are of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work is free from defects not inherent in the quality required or permitted, and that the Work conforms with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. This warranty excludes remedy or damage or defect caused by abuse, modifications not executed by the Subcontractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage.

If, within __ year(s) after the date of Notice of Completion of the Work or designated portion thereof, or by terms of an applicable special warranty required by the Contract Documents extending this time period, and of the Work is found to be not in accordance with the requirements of the Contract Documents or proves to be defective in materials or workmanship, the Subcontractor expressly agrees to correct it, without expense to the Owner, promptly after receipt of written notice from the Contractor to do so unless the Owner has previously given the Contractor written acceptance of the condition. This period of __ year (s) shall be extended with respect to portions of the Work first performed after Notice of Completion by the period of time between Notice of Completion and the actual performance of Work. This obligation of the Subcontractor to correct the Work shall survive acceptance of the Work under the Contract and termination of the Contract. The Contractor shall give such notice promptly after discovery of the condition.

Nothing contained in this warranty shall be construed to establish a period of limitation with respect to other obligations which the Subcontractor might have under the Contract Documents. Establishment of the time period of __ year(s), or special extended time periods required by the Contract Documents, for correction of the Work as described above relates only to the specific obligation of the Subcontractor to correct the work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Subcontractor's liability with respect to the Subcontractor's obligations other than specifically to correct the Work.

In the event of the Subcontractor's failure to comply with the conditions of this warranty within 5 days after being notified in writing by the Contractor, the Subcontractor, hereby authorizes the Contractor to proceed to have said defects repaired and made good at the Subcontractor's expense and the Subcontractor will honor and pay the costs and charges therefore upon demand.

The term "Work" means the construction and services required by the Contract Documents and includes all other labor, materials, equipment and services provided by the Subcontractor to fulfill the Subcontractor's obligations. The Work may constitute the whole or part of the total construction performed under the Contract Documents.

Date _____

_____
Contractor

_____
Address
_____

_____
Telephone

_____
Signature of Contractor

_____
Title

SECTION 024119 - SELECTIVE DEMOLITION

09/30/22

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section requires the selective removal and subsequent offsite disposal, unless noted otherwise, but not limited to, the following:

1. Demolition and removal of selected portions of building or structure.
2. Removal of existing items indicated on Drawings and miscellaneous items required to complete project.

B. Hazardous materials: Hazardous materials are present in buildings and structures to be selectively demolished. A report on the presence materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present. Contractor shall abate and remove hazardous materials per these requirements and technical specifications prepared TBD company.

1. Furnish all labor, materials, facilities, equipment, services, employee training and testing, permits and agreements necessary to perform the work required for asbestos removal in accordance with these specifications, the drawings and notations and the current regulations form the U.S. Environmental Protection Agency (EPA), the San Joaquin Valley Air Pollution Control District, the U.S. Occupational Safety and Health Administration (OSHA), the State of California Environmental Protection Agency (CalEPA), the California Department of Industrial Relations – Division of Occupational Safety and Health (Cal/OSHA), and any other applicable federal, state and local government regulations.

a. The following regulations are specifically applicable, and are incorporated by reference:

1) U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1910, 1915, and 1926: Occupational Exposure to Asbestos.
2) California Department of Industrial Relations, Division of Occupational Safety and Health, Title 8 Section 1529: Asbestos Construction Standard.

b. Whenever there is a conflict or overlap of the above references and requirements herein, the most stringent provision is applicable.

1) Perform the work described in the Scope of Work section with competent persons trained, knowledgeable, and qualified in the state-of-the-art techniques of asbestos abatement, handling and the subsequent cleaning of contaminated areas. Ensure that all workers, supervisory personnel, subcontractors, and consultants who will be at the job site are aware of the seriousness of the asbestos hazard and of the proper work procedure to be followed, including the required protective clothing, respirators and decontamination procedures.

c. For all hazardous materials related issues, TBD company, will be acting as the owner's representative. The removal and abatement is to be completed under the supervision of TBD company Certified Asbestos Consultants, or their designated Site Surveillance Technicians.

2. The scope of work includes the removal and disposal of asbestos containing materials, as well as the successful clearance of the Main building structure located at, 3000 College Heights Blvd, Ridgecrest, California. The suspect materials that have been tested in this structure are listed on the Bulk Asbestos Analysis Summary Report from TBD Company. The specific materials tested and found to contain asbestos are:

a. Fireproofing, sample I.D.

3. All ACM within the contract limits must be removed and disposed of unless specifically excluded in these Contract Documents. All quantities, numbers and dimensions, if given, are approximate and are furnished to convey the approximate qualities of ACM present. If additional suspect ACM are discovered during the course of the abatement, immediately notify the asbestos consultant.

4. The removal operational include, but not limited to:

a. Providing site security to assure that the general public is excluded from the asbestos work area at all times.
b. Maintaining access and egress routes at all times.
c. Providing workers training, respiratory protection and medical examinations.
d. Establishing and maintaining negative pressure in work areas.
e. Preparing work area(s) including erecting temporary isolation barriers.
f. Constructing worker and equipment decontamination enclosure systems.
g. Packing, labeling, transporating and disposing of ACM.
h. Decontaminating work area(s) for final visual inspection and final clearance air sampling.
i. Coordinating work with other contractors, the building manager(s), the architect, and the asbestos consultant.
j. Electrical and water requirements for this project will be the responsibility of the abatement contractor.

5. Hazardous materials:

a. Existing fire proofing removal is by Owner as indicated in hazardous material report, chargeable to this project by allowance.

E. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 1 Section "Construction Waste Reduction, Disposal and Recycling" for waste and disposal requirements.

1.3 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.

C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

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

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.5 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Schedule indicating proposed sequence of operations for selective demolition work to Architect for review prior to start of work with starting and ending dates for each activity. Include coordination dates for shutoff, capping, and continuation of utility services as required for review and approval by Architect and Owner.

1. Provide detailed sequence of demolition and removal work to ensure uninterrupted progress of Owner's on-site operations.
2. Coordinate with Owner's continuing occupation of portions of existing facilities and with Owner's partial occupancy of completed work. Provide dates of partial occupancy availability of portions of work for owner’s use.
3. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property , for environmental protection , for dust control and, for noise control. Indicate proposed locations and construction of barriers.
4. Note and secure prior approval by Owner and Architect in writing of any items that will impact the Owner’s continuing operations and note dates of impact. If no impacts provide statement in submittal to that owner’s continuing operations will not be impacted by project activities.
5. Use of elevator and stairs.
6. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

C. Digital photographs of existing conditions of structure surfaces, equipment, and adjacent improvements that might be misconstrued as damage related to removal operations. Provide copies in submittal; provide on digital storage device or provide download link prior to start of work.

1.6 CLOSEOUT SUBMITTALS

A. Inventory: Submit a list of items that have been removed and salvaged.

B. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes

1.7 QUALITY ASSURANCE

A. Codes and Standards: Comply with provisions of following codes, specifications, and standards, except where more stringent requirements are shown or specified:

1. Title 24, Part 1 CCR 2019, Chapter 5 (California Green Building Standard Code)

B. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

1.8 JOB CONDITIONS

A. Occupancy: Owner will occupy portions of the building immediately adjacent to areas of selective demolition. Conduct selective demolition work in manner that will minimize need for disruption of Owner's normal operations. Provide minimum of 72 hours advance notice to Owner of demolition activities that will affect Owner's normal operations.

1. Refer to Section “Summary of Work” for limitations on noise generations, access and other restrictions.

B. Condition of Facilities: Owner assumes no responsibility for actual condition of items or facilities to be demolished.

1. Conditions existing at time of inspection for bidding purposes will be maintained by Owner insofar as practicable. However, minor variations may occur by Owner's removal and salvage operations prior to start of selective demolition work.
2. Owner has first right of refusal of salvaged items. Contractor shall dispose of all items Owner does not want. Owner will walk through project prior to start of demolition and mark items for salvage. Contractor to schedule walk within 7 days written advance notification of architect, owner, subcontractors and consulting engineers.

C. Partial Demolition and Removal: Items indicated to be removed but of salvageable value to Contractor may be removed as work progresses. Transport salvaged items from site as they are removed. Document all items on Construction Waste Management Plan and reports.

1. Storage or sale of removed items on site will not be permitted.

D. Protections: Provide temporary barricades and other forms of protection to protect Owner's personnel and general public from injury due to selective demolition work.

1. Provide protective measures as required to provide free and safe passage of Owner's personnel and general public to occupied portions of building.
2. Erect temporary covered passageways as required by authorities having jurisdiction.
3. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structure or element to be demolished and adjacent facilities or work to

remain.

4. Protect from damage existing finish work that is to remain in place and becomes exposed during demolition operations.
5. Protect floors with suitable coverings when necessary.
6. Construct temporary insulated dustproof partitions where required to separate areas where noisy or extensive dirt or dust operations are performed. Equip partitions with dustproof doors and security locks.
7. Provide temporary weather protection during interval between demolition and removal of existing construction on exterior surfaces and installation of new construction to ensure that no water leakage or damage occurs to structure or interior areas of existing building.
8. Close off supply and return air registers in construction area prior to starting any work. Maintain fresh air to construction area via fans and other means.
9. Remove protections at completion of work.
10. Equipment, materials and supplies temporarily removed for protection shall be replaced in original locations. Any materials damaged shall be replaced with new materials of life kind and quality.
11. Protect wall, trim, floors, equipment, utility lines and materials. When working on finished surfaces limit damage to the smaller area if possible and restore to the pre-construction condition all surfaces which are damaged because of the installation of this work.

E. Damages: Promptly repair damages caused to adjacent facilities by demolition work.

F. Traffic: Conduct selective demolition operations and debris removal to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.

1. Do not close, block, or otherwise obstruct streets, walks, or other occupied or used facilities without written permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

G. Flame Cutting: Do not use cutting torches for removal until work area is cleared of flammable materials. At concealed spaces, such as interior of ducts and pipe spaces, verify condition of hidden space before starting flame-cutting operations. Maintain portable fire suppression devices during flame-cutting operations.

H. Utility Services: Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations.

1. Do not interrupt utilities serving occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to governing authorities.
2. Maintain fire protection services during selective demolition operations.

I. Environmental Controls: Use water sprinkling, temporary enclosures, and other methods to limit dust and dirt migration. Comply with governing regulations pertaining to environmental protection.

1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.

J. Fire safety during demolition.

1. Combustible Debris: Combustible debris shall not be accumulated within buildings and site. Combustible debris, rubbish and waste material shall be removed from buildings as often as practical. Combustible debris, waste material and trash shall not be burned on site.

2. Motor Equipment: Internal-combustion-powered construction equipment shall be used in accordance with the following:

    a. Equipment shall be located so that exhausts do not discharge against combustible material.
    b. When possible, exhausts shall be piped to the outside of the building.
    c. Equipment shall not be refueled while in operation.
    d. Fuel for equipment shall be stored in an approved area outside of the building and provided for containment for any spills of containers over 5 gallons.

3. Cutting and Welding: Cutting and welding operations shall be in accordance with Chapter 26 - California Fire Code.
4. Flame-producing Equipment: The use of torches or flame-producing devices for the sweating of pipe joints shall be in accordance with Chapter 14 and Chapter 26 - California Fire Code.
5. Flammable Liquids: The storage, use and handling of flammable liquids shall be in accordance with Chapter 34 - California Fire Code. Ventilation shall be provided for operations utilizing the application of materials containing flammable solvents.
6. Open-flame Devices: Open-flame devices and other sources of ignition shall not be located in areas where flammable materials are being used.
7. Building Access: Access to buildings for the purpose of fire fighting shall be provided per CFC 501.4 and 1412.1 and CBC 3311.4. Construction material shall not block access to buildings, hydrants or fire appliances; maintain areas around device clear at all times.
8. General: Demolition of buildings shall be in accordance with Chapter 14 - California Fire Code.
9. General: Construction of building shall be in accordance with Chapter 14 and Chapter 26 – California Fire Code.

PART 2 - PRODUCTS (Not Applicable)

2.1 PEFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

C. Verify that utilities have been disconnected and capped before starting selective demolition operations.

D. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.

E. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

F. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

3.2 PREPARATION

A. General: Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of areas to be demolished and adjacent facilities to remain.

1. Cease operations and notify Owner's Representative immediately if safety of structure appears to be endangered. Take precautions to support structure until determination is made for continuing operations.
2. Cover and protect furniture, equipment, and fixtures from soilage or damage when demolition work is performed in areas where such items have not been removed.
3. Erect and maintain dust-proof partitions and closures as required to prevent spread of dust or fumes to occupy and non-construction portions of the building.

    a. Where selective demolition occurs immediately adjacent to occupied portions of the building, construct dust-proof partitions of minimum 4-inch studs, 5/8-inch drywall (joints taped) on occupied side, 1/2-inch plywood on demolition side. Fill partition cavity with 4" sound-deadening insulation.
    b. Provide weatherproof closures for exterior openings resulting from demolition work.

4. Locate, identify, cap off, and disconnect utility services that are not indicated to remain.

    a. Provide bypass connections as necessary to maintain continuity of service to occupied areas of building. Provide minimum of 72 hours advance notice to Owner if shutdown of service is necessary during changeover. Schedule change over during building/site non-occupied times, and after hours.

5. Close off HVAC registers in demolition area to prevent migration of dust and etc. from entering mechanical systems.
6. Selective demolition contractor to coordinate with flooring contractor prior to demolition/removal of all items at existing concrete slab as required to receive new floor finishes prior to starting work.

3.3 DEMOLITION

A. General: Perform selective demolition work in a systematic manner. Use such methods as required to complete work indicated on Drawings in accordance with demolition schedule and governing regulations.

1. Demolish concrete and masonry in small sections. Cut concrete and masonry at junctures with construction to remain using power-driven masonry saw or hand tools; do not use power-driven impact tools.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.

3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
5. Locate demolition equipment throughout structure and promptly remove debris to avoid imposing excessive loads on supporting walls, floors, or framing.
6. Provide services for effective air and water pollution controls as required by local authorities having jurisdiction.
7. Demolish foundation walls to a depth of not less than 12 inches below existing ground surface, unless noted otherwise. Demolish and remove below-grade wood or metal construction. Break up below-grade concrete slabs. (See plans for more restrictive requirements.)
8. For interior slabs on grade, use removal methods that will not crack or structurally disturb adjacent slabs or partitions. Use power saw where possible.
9. Completely fill below-grade areas and voids resulting from demolition work. Provide fill consisting of approved earth, gravel, or sand, free of trash and debris, no stones over 1 inch in diameter, roots, or other organic matter.

B. If unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure both nature and extent of the conflict. Submit report to Owner's Representative in written, accurate detail. Pending receipt of directive from Owner's Representative, rearrange selective demolition schedule as necessary to continue overall job progress without undue delay.

C. Demolition work that generates noise shall be scheduled around schedule of occupied rooms within 125 feet of work to be done. This work may have to be done during after hours, evenings and weekends, depending on occupancy schedules. Verify with Director of Facilities prior to scheduling any noise-generating demolition. See Section 011000 for additional requirements. Obtain approvals in writing from Director of Facilities for any work during occupied hours within 125 feet of occupied spaces

3.4 SALVAGED MATERIALS

A. Salvaged Items: Where indicated on Drawings as "Salvage - Deliver to Owner," carefully remove indicated items, clean, store, and turn over to Owner and obtain receipt.

1. Owner shall remove all items prior to start of demolition of each area of building that they want to salvage. Owner shall have first right of salvage. All items left after Owner has completed salvage shall become property of Contractor.

B. Where noted herein, Contractor shall remove, package and deliver salvage items to Owner.

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

3.5 DISPOSAL OF WASTE/ DEMOLISHED MATERIALS

A. Remove from building site debris, rubbish, and other materials resulting from demolition operations. Transport and legally disposed off site per Construction Waste Management Plan.

1. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure or environmental pollution.
2. Burning of removed materials is not permitted on project site.

3.6 CLEANUP AND REPAIR

A. General: Upon completion of demolition work, remove tools, equipment, and demolished materials from site. Remove protections and leave interior areas soft broom clean.

1. Repair demolition performed in excess of that required. Return elements of construction and surfaces to remain to condition existing prior to start operations. Repair adjacent construction or surfaces soiled or damaged by selective demolition work.
2. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 078100 - SPRAYED FIRE-RESISTIVE MATERIALS 07/26/13

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 0 and 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but not limited to the following:

1. Concealed SFRM.

B. Related Sections include the following:

1. Division 2 Section “Selective Demolition” for accessing existing steel to be fireproofed after decking existing asbestos spray fireproofing and lead paint primer removed.

1.3 DEFINITIONS

A. SFRM: Sprayed fire-resistive material.

B. Concealed: Fire-resistive materials applied to surfaces that are concealed from view behind other construction when the Work is completed and have not been defined as exposed.

C. Exposed: Fire-resistive materials applied to surfaces that are exposed to view when the Work is completed and that are identified as exposed on Drawings.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Structural framing plans indicating the following:

1. Locations and types of surface preparations required before applying SFRM.
2. Extent of SFRM for each construction and fire-resistance rating, including the following:

a. Applicable fire-resistance design designations of a qualified testing and inspecting agency acceptable to authorities having jurisdiction.
b. Minimum thicknesses needed to achieve required fire-resistance ratings of structural components and assemblies.

3. Treatment of SFRM after application.

C. Samples for Initial Selection: For each type of colored, exposed SFRM indicated.

D. Samples for Verification: For each type of colored, exposed SFRM, two Samples, each 4 inches (102 mm) square, of each color, texture, and material formulation to be applied. Where finishes involve normal color and texture variations, include sample sets showing the full range of variations expected.

E. Product Certificates: For each type of SFRM, signed by product manufacturer.

F. Qualification Data: For Installer, manufacturer, professional engineer, and testing agency.

G. Compatibility and Adhesion Test Reports: From SFRM manufacturer indicating the following:

1. Materials have been tested for bond with substrates.
2. Materials have been verified by SFRM manufacturer to be compatible with substrate primers and coatings.
3. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.

H. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for proposed SFRM.

I. Research/Evaluation Reports: For SFRM.

J. Field quality-control test and special inspection reports.

K. Warranties: Special warranties specified in this Section.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: A firm or individual certified, licensed, or otherwise qualified by SFRM manufacturer as experienced and with sufficient trained staff to install manufacturer's products according to specified requirements. A manufacturer's willingness to sell its SFRM to Contractor or to an installer engaged by Contractor does not in itself confer qualification on the buyer.

B. Source Limitations: Obtain SFRM through one source from a single manufacturer.

C. SFRM Testing: By a qualified testing and inspecting agency engaged by Contractor or manufacturer to test for compliance with specified requirements for performance and test methods.

1. SFRMs are randomly selected for testing from bags bearing the applicable classification marking of UL or another testing and inspecting agency acceptable to authorities having jurisdiction.
2. Testing is performed on specimens of SFRMs that comply with laboratory testing requirements specified in Part 2 and are otherwise identical to installed fire-resistive materials, including application of accelerant, sealers, topcoats, tamping, troweling, rolling, and water overspray, if any of these are used in final application.
3. Testing is performed on specimens whose application the independent testing and inspecting agency witnessed during preparation and conditioning. Include in test reports a full description of preparation and conditioning of laboratory test specimens.

D. Compatibility and Adhesion Testing: Engage a qualified testing and inspecting agency to test for compliance with requirements for specified performance and test methods.

1. Test for bond per ASTM E 736 and requirements in UL's "Fire Resistance Directory" for coating materials. Provide bond strength indicated in referenced fire-resistance design, but not less than minimum specified in Part 2.
2. Verify that manufacturer, through its own laboratory testing or field experience, has not found primers or coatings to be incompatible with SFRM.

E. Fire-Test-Response Characteristics: Provide SFRM with the fire-test-response characteristics indicated, as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify bags containing SFRM with appropriate markings of applicable testing and inspecting agency.

1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" acceptable to authorities having jurisdiction, for SFRM serving as direct-applied protection tested per ASTM E 119.
2. Surface-Burning Characteristics: ASTM E 84.

F. Provide products containing no detectable asbestos as determined according to the method specified in 40 CFR 763, Subpart E, Appendix E, Section 1, "Polarized Light Microscopy."

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to Project site in original, unopened packages with intact and legible manufacturers' labels identifying product and manufacturer, date of manufacture, shelf life if applicable, and fire-resistance ratings applicable to Project.

B. Use materials with limited shelf life within period indicated. Remove from Project site and discard materials whose shelf life has expired.

C. Store materials inside, under cover, and aboveground; keep dry until ready for use. Remove from Project site and discard wet or deteriorated materials.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Do not apply SFRM when ambient or substrate temperature is 40 deg F (4 deg C) or lower unless temporary protection and heat are provided to maintain temperature at or above this level for 24 hours before, during, and for 24 hours after product application.

B. Ventilation: Ventilate building spaces during and after application of SFRM. Use natural means or, if they are inadequate, forced-air circulation until fire-resistive material dries thoroughly.

1.8 COORDINATION

A. Sequence and coordinate application of SFRM with other related work specified in other Sections to comply with the following requirements:

1. Provide temporary enclosure as required to confine spraying operations and protect the environment.
2. Provide temporary enclosures for applications to prevent deterioration of fire-resistive material due to exposure to weather and to unfavorable ambient conditions for humidity, temperature, and ventilation.

3. Avoid unnecessary exposure of fire-resistive material to abrasion and other damage likely to occur during construction operations subsequent to its application.
4. Do not apply fire-resistive material to metal roof deck substrates until concrete topping, if any, has been completed. For metal roof decks without concrete topping, do not apply fire-resistive material to metal roof deck substrates until roofing has been completed; prohibit roof traffic during application and drying of fire-resistive material.
5. Do not apply fire-resistive material to metal floor deck substrates until concrete topping has been completed.
6. Defer installing ducts, piping, and other items that would interfere with applying fire-resistive material until application of fire protection is completed.
7. Do not install enclosing or concealing construction until after fire-resistive material has been applied, inspected, and tested and corrections have been made to defective applications.

1.9 WARRANTY

A. Special Warranty: Manufacturer's standard form, signed by Contractor and by Installer, in which manufacturer agrees to repair or replace SFRMs that fail in materials or workmanship within specified warranty period.

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

a. Cracking, flaking, spalling, or eroding in excess of specified requirements; peeling; or delaminating of SFRM from substrates.
b. Not covered under the warranty are failures due to damage by occupants and Owner's maintenance personnel, exposure to environmental conditions other than those investigated and approved during fire-response testing, and other causes not reasonably foreseeable under conditions of normal use.

2. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CONCEALED SFRM

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

B. Products: Subject to compliance with requirements, provide one of the following:

1. Concealed Cementitious SFRM:

a. Carboline Co., Fireproofing Products Div.; Pyrolite 15 High Yield.
b. Grace, W. R. & Co. - Conn., Construction Products Div.; Monokote Type MK-6 Isolatek International Corp.; Cafco 300.
c. Southwest Vermiculite Co., Inc.; Type 5.
d. Carboline Co., Fireproofing Products Div.; Pyrolite 15 Blue.
e. Grace, W. R. & Co. - Conn., Construction Products Div.; Retro-Gard.
f. Isolatek International Corp.; Cafco 300 SB.

C. Material Composition: Manufacturer's standard product, as follows:

1. Concealed Cementitious SFRM: Factory-mixed, dry formulation of gypsum or portland cement binders, additives, and lightweight mineral or synthetic aggregates mixed with water at Project site to form a slurry or mortar for conveyance and application.

D. Physical Properties: Minimum values, unless otherwise indicated, or higher values required to attain designated fire-resistance ratings, measured per standard test methods referenced with each property as follows:

1. Dry Density: 15 lb/cu. ft. (240 kg/cu. m) for average and individual densities, or greater if required to attain fire-resistance ratings indicated, per ASTM E 605 or AWCI Technical Manual 12-A, Section 5.4.5, "Displacement Method."
2. Thickness: Minimum average thickness required for fire-resistance design indicated according to the following criteria, but not less than 0.375 inch (9 mm), per ASTM E 605:

    a. Where the referenced fire-resistance design lists a thickness of 1 inch (25 mm) or more, the minimum allowable individual thickness of SFRM is the design thickness minus 0.25 inch (6 mm).
    b. Where the referenced fire-resistance design lists a thickness of less than 1 inch (25 mm) but more than 0.375 inch (9 mm), the minimum allowable individual thickness of SFRM is the greater of 0.375 inch (9 mm) or 75 percent of the design thickness.
    c. No reduction in average thickness is permitted for those fire-resistance designs whose fire-resistance ratings were established at densities of less than 15 lb/cu. ft. (240 kg/cu. m).

3. Bond Strength: 200 lb/sq. ft. minimum per ASTM E 736 based on laboratory testing of 0.75-inch (19-mm) minimum thickness of SFRM.
4. Compressive Strength: 1200 PCF minimum per ASTM E 761. Minimum thickness of SFRM tested shall be 0.75 inch (19 mm) and minimum dry density shall be as specified but not less than 15 lb/cu. ft. (240 kg/cu. m).
5. Corrosion Resistance: No evidence of corrosion per ASTM E 937.
6. Deflection: No cracking, spalling, or delamination per ASTM E 759.
7. Effect of Impact on Bonding: No cracking, spalling, or delamination per ASTM E 760.
8. Air Erosion: Maximum weight loss of 0.025 g/sq. ft. (0.270 g/sq. m) in 24 hours per ASTM E 859. For laboratory tests, minimum thickness of SFRM is 0.75 inch (19 mm), maximum dry density is 15 lb/cu. ft. (240 kg/cu. m), test specimens are not prepurged by mechanically induced air velocities, and tests are terminated after 24 hours.
9. Fire-Test-Response Characteristics: Provide SFRM with the following surface-burning characteristics as determined by testing identical products per ASTM E 84 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:

    a. Flame-Spread Index: 0.
    b. Smoke-Developed Index: 0.

10. Fungal Resistance: No observed growth on specimens per ASTM G 21.

2.2 AUXILIARY FIRE-RESISTIVE MATERIALS

A. General: Provide auxiliary fire-resistive materials that are compatible with SFRM and substrates and are approved by UL or another testing and inspecting agency acceptable to authorities having jurisdiction for use in fire-resistance designs indicated.

B. Substrate Primers: For use on each substrate and with each sprayed fire-resistive product, provide primer that complies with one or more of the following requirements:

1. Primer's bond strength complies with requirements specified in UL's "Fire Resistance Directory" for coating materials based on a series of bond tests per ASTM E 736.
2. Primer is identical to those used in assemblies tested for fire-test-response characteristics of SFRM per ASTM E 119 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.

C. Adhesive for Bonding Fire-Resistive Material: Product approved by manufacturer of SFRM.

D. Metal Lath: Expanded metal lath fabricated from material of weight, configuration, and finish required to comply with fire-resistance designs indicated and fire-resistive material manufacturer's written recommendations. Include clips, lathing accessories, corner beads, and other anchorage devices required to attach lath to substrates and to receive SFRM.

E. Topcoat: Type recommended in writing by manufacturer of each SFRM for application over exposed SFRM.

F. Cement-Based Topcoat: Factory-mixed, cementitious hardcoat formulation recommended in writing by manufacturer of SFRM for trowel or spray application over exposed SFRM.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for substrates and other conditions affecting performance of work. A substrate is in satisfactory condition if it complies with the following:

1. Substrates comply with requirements in the Section where the substrate and related materials and construction are specified.
2. Substrates are free of dirt, oil, grease, release agents, rolling compounds, mill scale, loose scale, incompatible primers, incompatible paints, incompatible encapsulants, or other foreign substances capable of impairing bond of fire-resistive materials with substrates under conditions of normal use or fire exposure.
3. Objects penetrating fire-resistive material, including clips, hangers, support sleeves, and similar items, are securely attached to substrates.
4. Substrates are not obstructed by ducts, piping, equipment, and other suspended construction that will interfere with applying fire-resistive material.

B. Verify that concrete work on steel deck has been completed.

C. Verify that roof construction, installation of roof-top HVAC equipment, and other related work are completed.

D. Conduct tests according to fire-resistive material manufacturer's written recommendations to verify that substrates are free of substances capable of interfering with bond.

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

3.2 PREPARATION

A. Cover other work subject to damage from fallout or overspray of fire-resistive materials during application.

B. Clean substrates of substances that could impair bond of fire-resistive material, including dirt, oil, grease, release agents, rolling compounds, mill scale, loose scale, and incompatible primers, paints, and encapsulants.

C. Prime substrates where recommended in writing by SFRM manufacturer unless compatible shop primer has been applied and is in satisfactory condition to receive SFRM.

D. For exposed applications, repair substrates to remove surface imperfections that could affect uniformity of texture and thickness in finished surface of SFRM. Remove minor projections and fill voids that would telegraph through fire-resistive products after application.

3.3 APPLICATION, GENERAL

A. Comply with fire-resistive material manufacturer's written instructions for mixing materials, application procedures, and types of equipment used to mix, convey, and spray on fire-resistive material, as applicable to particular conditions of installation and as required to achieve fire-resistance ratings indicated.

B. Apply SFRM that is identical to products tested as specified in Part 1 "Quality Assurance" Article and substantiated by test reports, with respect to rate of application, accelerator use, sealers, topcoats, tamping, troweling, water overspray, or other materials and procedures affecting test results.

C. Install metal lath, as required, to comply with fire-resistance ratings and fire-resistive material manufacturer's written recommendations for conditions of exposure and intended use. Securely attach lath to substrate in position required for support and reinforcement of fire-resistive material. Use anchorage devices of type recommended in writing by SFRM manufacturer. Attach accessories where indicated or required for secure attachment of lath to substrate.

D. Coat substrates with bonding adhesive before applying fire-resistive material where required to achieve fire-resistance rating or as recommended in writing by SFRM manufacturer for material and application indicated.

E. Extend fire-resistive material in full thickness over entire area of each substrate to be protected. Unless otherwise recommended in writing by SFRM manufacturer, install body of fire-resistive covering in a single course.

F. Spray apply fire-resistive materials to maximum extent possible. Following the spraying operation in each area, complete the coverage by trowel application or other placement method recommended in writing by SFRM manufacturer.

G. Where sealers are used, apply products that are tinted to differentiate them from SFRM over which they are applied.

3.4 APPLICATION, CONCEALED SFRM

A. Apply concealed SFRM in thicknesses and densities not less than those required to achieve fire-resistance ratings designated for each condition, but apply in greater thicknesses and densities if specified in Part 2 "Concealed SFRM" Article.

B. Apply water overspray to concealed sprayed-fiber fire-resistive material as required to obtain designated fire-resistance rating.

C. Cure concealed SFRM according to product manufacturer's written recommendations.

D. Apply sealer to concealed SFRM.

E. Apply topcoat to concealed SFRM.

3.5 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections and prepare test reports.

1. Testing and inspecting agency will interpret tests and state in each report whether tested work complies with or deviates from requirements.

B. Tests and Inspections: Testing and inspecting of completed applications of SFRM shall take place in successive stages, in areas of extent and using methods as follows. Do not proceed with application of SFRM for the next area until test results for previously completed applications of SFRM show compliance with requirements. Tested values must equal or exceed values indicated and required for approved fire-resistance design.

1. Thickness for Floor, Roof, and Wall Assemblies: For each 1000-sq. ft. (93-sq. m) area, or partial area, on each floor, from the average of 4 measurements from a 144-sq. in. (0.093-sq. m) sample area, with sample width of not less than 6 inches (152 mm) per ASTM E 605.
2. Thickness for Structural Frame Members: From a sample of 25 percent of structural members per floor, taking 9 measurements at a single cross section for structural frame beams or girders, 7 measurements of a single cross section for joists and trusses, and 12 measurements of a single cross section for columns per ASTM E 605.
3. Density for Floors, Roofs, Walls, and Structural Frame Members: At frequency and from sample size indicated for determining thickness of each type of construction and structural framing member, per ASTM E 605 or AWCI Technical Manual 12-A, Section 5.4.5, "Displacement Method."
4. Bond Strength for Floors, Roofs, Walls, and Structural Framing Members: For each 10,000-sq. ft. (929 sq. m) area, or partial area, on each floor, cohesion and adhesion from one sample of size indicated for determining thickness of each type of construction and structural framing member, per ASTM E 736.

    a. Field test SFRM that is applied to flanges of wide-flange, structural-steel members on surfaces matching those that will exist for remainder of steel receiving fire-resistive material.
    b. If surfaces of structural steel receiving SFRM are primed or otherwise painted for coating materials, perform series of bond tests specified in UL's "Fire Resistance Directory." Provide bond strength indicated in referenced UL fire-resistance criteria, but not less than 150 lbf/sq. ft. (7.2 kPa) minimum per ASTM E 736.

5. If testing finds applications of SFRM are not in compliance with requirements, testing and inspecting agency will perform additional random testing to determine extent of noncompliance.

C. Remove and replace applications of SFRM that do not pass tests and inspections for cohesion and adhesion, for density, or for both and retest as specified above.

D. Apply additional SFRM, per manufacturer's written instructions, where test results indicate that thickness does not comply with specified requirements, and retest as specified above.

3.6 CLEANING, PROTECTING, AND REPAIR

A. Cleaning: Immediately after completing spraying operations in each containable area of Project, remove material overspray and fallout from surfaces of other construction and clean exposed surfaces to remove evidence of soiling.

B. Protect SFRM, according to advice of product manufacturer and Installer, from damage resulting from construction operations or other causes so fire protection will be without damage or deterioration at time of Substantial Completion.

C. Coordinate application of SFRM with other construction to minimize need to cut or remove fire protection. As installation of other construction proceeds, inspect SFRM and patch any damaged or removed areas.

D. Repair or replace work that has not successfully protected steel.

END OF SECTION 078100

SECTION 079200 - JOINT SEALANTS

09/30/22

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Divisions 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but is not limited to the following sealants for the following applications, including those specified by reference to this Section (refer to Joint Sealer Schedule on construction documents for additional requirements):

1. Interior joints in the following vertical surfaces and horizontal nontraffic surfaces:

a. Perimeter joints between interior wall surfaces and frames of interior doors, windows.

B. Related Sections include the following:

1. Division 8 Section "Glazing" for glazing sealants.
2. Division 9 Section "Gypsum Board Assemblies" for sealing perimeter joints of gypsum board partitions to reduce sound transmission.
3. Division 9 Section "Acoustical Panel Ceilings" for sealing edge moldings at perimeters of acoustical ceilings.

1.3 PERFORMANCE REQUIREMENTS

A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

1.4 SUBMITTALS

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

B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

C. Samples for Verification: For each type and color of joint sealant required. Install joint sealants in 1/2-inch- (13-mm-) wide joints formed between two 6-inch- (150-mm-) long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

D. Product Certificates: Signed by manufacturers of joint sealants certifying that products furnished comply with requirements and are suitable for the use indicated.

E. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate

their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

F. Compatibility and Adhesion Test Reports: From sealant manufacturer indicating the following:

1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.

G. Warranties: Special warranties specified in this Section.

H. Project Closeout Requirements:

1. 5-year installer warranty.
2. 5-year manufacturer's warranty.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has specialized in installing joint sealants similar in material, design, and extent to those indicated for this Project and whose work has resulted in joint-sealant installations with a record of successful in-service performance.

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

C. Preconstruction Field-Adhesion Testing: Before installing elastomeric sealants, field test their adhesion to joint substrates as follows:

1. Locate test joints where indicated or, if not indicated, as directed by Architect.
2. Conduct field tests for each application indicated below:

    a. Each type of elastomeric sealant and joint substrate indicated.
    b. Each type of nonelastomeric sealant and joint substrate indicated.

3. Notify Architect seven days in advance of dates and times when test joints will be erected.
4. Arrange for tests to take place with joint sealant manufacturer's technical representative present.
5. Test Method: Test joint sealants by hand-pull method described below:

    a. Install joint sealants in 60-inch- (1500-mm-) long joints using same materials and methods for joint preparation and joint-sealant installation required for the completed Work. Allow sealants to cure fully before testing.
    b. Make knife cuts from one side of joint to the other, followed by two cuts approximately 2 inches (50 mm) long at sides of joint and meeting cross cut at one end. Place a mark 1 inch (25 mm) from cross-cut end of 2-inch (50-mm) piece.
    c. Use fingers to grasp 2-inch (50-mm) piece of sealant between cross-cut end and 1-inch (25-mm) mark; pull firmly at a 90-degree angle or more in direction of side cuts while holding a ruler along side of sealant. Pull sealant out of joint to the distance recommended by sealant manufacturer for testing adhesive capability, but not less than that equaling specified maximum movement capability in extension; hold this position for 10 seconds.
    d. For joints with dissimilar substrates, check adhesion to each substrate separately. Do this by extending cut along one side, checking adhesion to opposite side, and then

repeating this procedure for opposite side.

6. Report whether sealant in joint connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each type of product and joint substrate. For sealants that fail adhesively, retest until satisfactory adhesion is obtained.
7. Evaluation of Preconstruction Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrates during testing.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration date, pot life, curing time, and mixing instructions for multicomponent materials.

B. Store and handle materials in compliance with manufacturer's written instructions to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 40 deg F (4.4 deg C).
2. When joint substrates are wet.

B. Joint-Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.

C. Joint-Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

1.8 WARRANTY

A. General Warranty: Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Special Installer's Warranty: Written warranty, signed by Installer agreeing to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Five (5) years from date of Notice of Completion.

C. Special Manufacturer's Warranty: Written warranty, signed by elastomeric sealant manufacturer agreeing to furnish elastomeric joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Five (5) years from date of Notice of Completion.

D. Special warranties specified in this Article exclude deterioration or failure of elastomeric joint sealants from the following:

1. Movement of the structure resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression caused by structural settlement or errors attributable to design or construction.
2. Disintegration of joint substrates from natural causes exceeding design specifications.
3. Mechanical damage caused by individuals, tools, or other outside agents.
4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 PRODUCTS AND MANUFACTURERS

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the products specified in the Sealant Data Sheets at the end of Part 3.

2.2 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.

B. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range for this characteristic.

2.3 ELASTOMERIC JOINT SEALANTS

A. Elastomeric Sealant Standard: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant in the Elastomeric Joint-Sealant Schedule at the end of Part 3, including those referencing ASTM C 920 classifications for type, grade, class, and uses.

B. Additional Movement Capability: Where additional movement capability is specified in the Elastomeric Joint-Sealant Schedule, provide products with the capability, when tested for adhesion and cohesion under maximum cyclic movement per ASTM C 719, to withstand the specified percentage change in the joint width existing at the time of installation and remain in compliance with other requirements of ASTM C 920 for uses indicated.

C. Suitability for Contact with Food: Where elastomeric sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.

2.4 LATEX JOINT SEALANTS (Indicated ES6 on Drawings)

A. Latex Sealant Standard: Comply with ASTM C 834 for each product of this description.

1. General: Provide manufacturer's standard one-part, non-sag, mildew-resistant, paintable

latex sealant of formulation indicated that is recommended for exposed applications on interior and protected exterior locations and that accommodates indicated percentage change in joint width existing at time of installation without failing either adhesively or cohesively (indicated on Drawings as ES6).

2. Acrylic-Emulsion Sealant: Provide product complying with ASTM C 834 that accommodates joint movement of not more than 5 percent in both extension and compression for a total of 10 percent.
3. Available Products" Subject to compliance with requirements, latex joint sealants that may be incorporated in the Work include, but are not limited to, the following:

    a. Acrylic-Emulsion Sealant:

        1) "AC-20," Pecora Corp.
        2) "Sonolac," Sonneborn Building Products Div., ChemRex, Inc.
        3) "Tremco Acrylic Latex 834," Tremco, Inc.

2.5 ACOUSTICAL JOINT SEALANTS (Indicated ES7 on Drawings)

A. Acoustical Sealant for Exposed and Concealed Joints: For each product of this description indicated in the Acoustical Joint-Sealant Schedule at the end of Part 3, provide manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834 and the following:

1. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.

B. Acoustical Sealant for Concealed Joints: For each product of this description provide manufacturer's standard, nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic-rubber sealant recommended for sealing interior concealed joints to reduce airborne sound transmission.

C. Available Products: Subject to compliance with requirements, acoustical joint sealants that may be incorporated in the Work include, but are not limited to, the following:

1. Acoustical Sealant:

    a. "SHEETROCK Acoustical Sealant," United States Gypsum Co.
    b. "AC-20 FTR Acoustical and Insulation Sealant," Pecora Corp.

2. Acoustical Sealant for Concealed Joints:

    a. "BA-98," Pecora Corp.
    b. "Tremco Acoustical Sealant," Tremco, Inc.

2.6 JOINT-SEALANT BACKING

A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Cylindrical Sealant Backings: ASTM C 1330, of type indicated below and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:

1. Type C: Closed-cell material with a surface skin.
2. Type O: Open-cell material.
3. Type B: Bicellular material with a surface skin.
4. Type: Any material indicated above.

C. Elastomeric Tubing Sealant Backings: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D 1056, nonabsorbent to water and gas, and capable of remaining resilient at temperatures down to minus 26 deg F (minus 32 deg C). Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and otherwise contribute to optimum sealant performance.

D. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.6 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants with joint substrates.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.

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

3.2 PREPARATION

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

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.

2. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air. Porous joint surfaces include the following:

    a. Concrete.
    b. Masonry.
    c. Unglazed surfaces of ceramic tile.

3. Remove laitance and form-release agents from concrete.
4. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

    a. Metal.
    b. Glass.
    c. Glazed surfaces of ceramic tile.

B. Joint Priming: Prime joint substrates where recommended in writing by joint sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations of ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Acoustical Sealant Application Standard: Comply with recommendations of ASTM C 919 for use of joint sealants in acoustical applications as applicable to materials, applications, and conditions indicated.

D. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

    1. Do not leave gaps between ends of sealant backings.
    2. Do not stretch, twist, puncture, or tear sealant backings.
    3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

E. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and back of joints.

F. Install sealants by proven techniques to comply with the following and at the same time backings are installed:

1. Place sealants so they directly contact and fully wet joint substrates.
2. Completely fill recesses provided for each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

G. Tooling of Non-sag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

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

    a. Use masking tape to protect adjacent surfaces of recessed tooled joints.

H. Installation of Preformed Foam Sealants: Install each length of sealant immediately after removing protective wrapping, taking care not to pull or stretch material, to produce seal continuity at ends, turns, and intersections of joints. For applications at low ambient temperatures where expansion of sealant requires acceleration to produce seal, apply heat to sealant to comply with sealant manufacturer's written instructions.

3.4 CLEANING

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

3.5 PROTECTION

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

LASTOMERIC JOINT SEALANT DATA SHEET

Elastomeric Joint Sealant Designation: ES #4.

Base Polymer: Neutral-curing silicone.

Type: S (single component).

Grade: NS (nonsag).

Class: 25.

Additional Movement Capability: 100 percent movement in extension and 50 percent in compression for a total of 150 percent movement.

Use[s] Related to Exposure: NT (nontraffic).

Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicated, O.

Use O Joint Substrates: Coated glass, color anodized aluminum, aluminum coated with a high-performance coating, galvanized steel, brick, granite, marble, ceramic tile, and wood.

Available Products:

1. "790", Dow Corning.
2. "Spectrem 1", Tremco.

ELASTOMERIC JOINT SEALANT DATA SHEET

Elastomeric Joint Sealant Designation: ES #5.

Base Polymer: Neutral-curing silicone.

Type: S (single component).

Grade: NS (nonsag).

Class: 25.

Additional Movement Capability: 50 percent movement in extension and 50 percent in compression for a total of 100 percent movement.

Use[s] Related to Exposure: NT (nontraffic).

Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicated, O.

Use O Joint Substrates: Coated glass, color anodized aluminum, aluminum coated with a high-performance coating, galvanized steel, brick, granite, marble, ceramic tile, plastic, and wood.

Available Products:

1. "795", Dow Corning.
2. "895", Pecora Corp.

ELASTOMERIC JOINT SEALANT DATA SHEET

Elastomeric Joint Sealant Designation: ES #6.

Base Polymer: Acrylic emulsion.

Type: S (single component).

Grade: NS (nonsag).

Class: 25.

Additional Movement Capability: 5 percent movement in extension and 5 percent in compression for a total of 10 percent movement.

Use[s] Related to Exposure: NT (nontraffic).

Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicated, O.

Use O Joint Substrates: Coated glass, color anodized aluminum, aluminum coated with a high-performance coating, galvanized steel, brick, granite, marble, ceramic tile, plastic, and wood.

Available Products:

1. "Sonolac", Sonneborn Building Products Div., ChemRex, Inc.
2. "AC-20", Pecora Corp.
3. “Tremco Acrylic Latex 834, “Tremco, Inc.

ELASTOMERIC JOINT SEALANT DATA SHEET

Elastomeric Joint Sealant Designation: ES #7.

Base Polymer: Synthetic rubber.

Type: S (single component).

Grade: NS (nonsag).

Class: 25.

Additional Movement Capability: NA.

Use[s] Related to Exposure: NT (nontraffic).

Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicated, O.

Use O Joint Substrates: Coated glass, color anodized aluminum, aluminum coated with a high-performance coating, galvanized steel, brick, granite, marble, ceramic tile, plastic, and wood.

Available Products:

1. Acoustic Sealant:
   a. "Sheetrock Acoustic Sealant", United States Gypsum Co.
   b. "AC-20 FTR Acoustic & Insulation Sealant", Pecora Corp.
2. Acoustic Sealant for Concealed Joints:
   a. “BA-98”, Pecora Corp.
   b. “Tremco Acoustic Sealant”, Tremco, Inc

ELASTOMERIC JOINT SEALANT DATA SHEET

Elastomeric Joint Sealant Designation: ES #8. Tape Sealant.

Base Polymer: Elastic modified butyl tape.

Type: S (single component).

Grade: NS (nonsag).

Class: 25.

Additional Movement Capability: 100 percent movement in extension and 50 percent in compression for a total of 150 percent movement.

Use[s] Related to Exposure: NT (nontraffic).

Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicated, O.

Use O Joint Substrates: Coated glass, color anodized aluminum, aluminum coated with a high-performance coating, galvanized steel, brick, granite, marble, ceramic tile, and wood.

Available Products:

1. 1-1/2" w x 3/16".

ELASTOMERIC JOINT SEALANT DATA SHEET

Elastomeric Joint Sealant Designation: ES #10.

Base Polymer: Neutral-curing silicone.

Type: S (single component).

Grade: NS (nonsag).

Class: 25.

Additional Movement Capability: ±25 percent movement in extension and in compression for a total of ±25 percent movement.

Use[s] Related to Exposure: NT (nontraffic).

Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicated, O.

Use O Joint Substrates: Coated glass, color anodized aluminum, aluminum coated with a high-performance coating, galvanized steel, brick, granite, marble, ceramic tile, and wood.

Available Products:

1. "790", Dow Corning.

Additional Notes: Allow for priming the adhesion surface of the copper flashing with Dow Corning 1200 OS or provide field adhesion test results acceptable to the sealant manufacturer.

END OF SECTION 079200

SECTION 084113 - ALUMINUM ENTRANCES AND STOREFRONTS

10/06/14

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but not limited to, the following types of aluminum entrance and storefront work:

1. Interior doors.
2. Sidelights.
3. Storefront-type framing system - interior/exterior.

B. Related Sections: The following sections contain requirements that relate to this Section:
1. Sealants are specified in Division 7 Section “Joint Sealants”.
2. Glazing requirements for aluminum entrances and storefront, including entrances specified to be factory glazed, are included in Division 8 Section "Glass and Glazing."
2. Lock cylinders are included in Division 8 Section "Door Hardware."
3. Electronic hardware is specified in Division 8 Section “Door Hardware.”

1.3 SYSTEM PERFORMANCE REQUIREMENTS (STOREFRONT SYSTEMS)

A. General: Provide aluminum entrance and storefront assemblies that comply with performance characteristics specified, as demonstrated by testing the manufacturer's corresponding stock assemblies according to test methods indicated.

B. Thermal Movement: Design the aluminum entrance and storefront framing systems to provide for expansion and contraction of the component materials. Entrance doors shall function normally over the specified temperature range.

1. The system shall be capable of withstanding a metal surface temperature range of 180 deg F (100 deg C) without buckling, failure of joint seals, undue stress on structural elements, damaging loads on fasteners, reduction of performance, stress on glass, or other detrimental effects.

C. Design Requirements: Provide aluminum entrance and storefront systems that comply with structural performance, air infiltration, and water penetration requirements indicated.

1. Wind Loads: Provide aluminum entrance and storefront assemblies capable of withstanding wind pressures of 25 psf inward and 25 psf outward acting normal to the plane of the wall.
3. Door frames shall not exceed 3/8” deflection.

D. Structural Performance: Conduct tests for structural performance in accordance with ASTM E 330. At the conclusion of the tests there shall be no glass breakage or permanent

damage to fasteners, anchors, hardware or actuating mechanism. Framing members shall have no permanent deformation in excess of 0.2 percent of their clear span.

1. Deflection Normal to the Plane of the Wall: Test pressure required to measure deflection of framing members normal to the plane of the wall shall be equivalent to the wind load specified above. Deflection shall not exceed 1/175 of the clear span, when subjected to uniform load deflection test.
2. Deflection Parallel to the Plane of the Wall: Test pressures required to measure deflection parallel to the plane of the wall shall be equal to 1.5 times the wind pressures specified above. Deflection of any member carrying its full dead load shall not exceed an amount that will reduce glass bite below 75 percent of the design dimension and shall not reduce the edge clearance between the member and the fixed panel, glass or other fixed member above to less than 1/8 inch. The clearance between the member and an operable door or window shall be at least 1/16 inch.

E. Air Infiltration: Provide aluminum entrance and storefront framing system with an air infiltration rate of not more than 0.06 CFM per sq. ft. of fixed area (excluding operable door edges) when tested in accordance with ASTM E 283 at an inward test pressure differential of 1.57 psf.

F. Water Penetration: Provide framing systems with no uncontrolled water penetration (excluding operable door edges) as defined in the test method when tested in accordance with ASTM E 331 at an inward test pressure differential of 6.24 lbf per sq. ft.

1.4 SUBMITTALS

A. General: Submit the following in accordance with Conditions of the Contract and Division 1 Specification Sections.

1. Product data for each aluminum entrance and storefront system required, including:

   a. Manufacturer's standard details and fabrication methods.
   b. Data on finishing, hardware and accessories.
   c. Recommendations for maintenance and cleaning of exterior surfaces.

2. Shop drawings for each aluminum entrance and storefront system required, including:

   a. Layout and installation details, including relationship to adjacent work.
   b. Elevations at 1/4-inch scale.
   c. Detail sections of typical composite members.
   d. Anchors and reinforcement.
   e. Hardware mounting heights.
   f. Provisions for expansion and contraction.
   g. Glazing details.

3. Hardware Schedule: Submit complete hardware schedule organized into sets based on hardware specified. Coordinate hardware with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish. Include item name, name of the manufacturer and complete designations of every item required for each door opening.
4. Samples for Verification Purposes: The Architect reserves the right to require additional samples, that show fabrication techniques and workmanship, and design of hardware and accessories.
5. Test Reports: Provide certified test reports from a qualified independent testing laboratory showing that aluminum entrance and storefront systems have been tested in accordance

with specified test procedures and comply with performance characteristics indicated.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced Installer who has completed installations of aluminum storefront and entrances similar in design and extent to those required for the project and whose work has resulted in construction with a record of successful in-service performance.

B. Fabricator Qualifications: Provide aluminum entrances and storefront systems fabricated by a firm experienced in producing systems that are similar to those indicated for this Project, and that have a record of successful in-service performance. The fabricator shall have sufficient production capacity to produce components required without causing delay in progress of the Work.

C. Single Source Responsibility: Obtain aluminum entrance and each storefront systems from one source and from a single manufacturer. Individual components of each system shall be per a single manufacture, but all 3 systems do not have to be the same manufacture.

D. Design Criteria: The drawings indicate the size, profile, and dimensional requirements of aluminum entrance and storefront work required and are based on the specific types and models indicated. Aluminum entrance and storefront by other manufacturers may be considered, provided deviations in dimensions and profiles are minor and do not change the design concept as judged by the Architect. The burden of proof of equality is on the proposer.

1.6 PROJECT CONDITIONS

A. Field Measurements: Check openings by accurate field measurement before fabrication. Show recorded measurements on shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of the work.

1. Where necessary, proceed with fabrication without field measurements, and coordinate fabrication tolerances to ensure proper fit.

1.7 WARRANTY

A. Warranty: Submit a written warranty, executed by the manufacturer, agreeing to repair or replace units that fail in materials or workmanship within the specified warranty period. Failures include, but are not necessarily limited to:

1. Structural failures including excessive deflection, excessive leakage or air infiltration.
2. Faulty operation.
3. Deterioration of metals, metal finishes and other materials beyond normal weathering.

B. Warranty Period: 3 years after the date of Notice of Completion.

C. The warranty shall not deprive the Owner of other rights or remedies the Owner may have under other provisions of the Contract Documents, and is in addition to and runs concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

D. Warranty for Anodized finish shall be 10 years from date of Notice of Completion for all components with anodized finish.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering entrance and storefront systems that may be incorporated in the work include, but are not limited to, the following:

1. Kawneer Company, Inc.
2. United States Aluminum Corp.
3. Vistawall Architectural Products.

2.2 MATERIALS

A. Aluminum Members: Alloy and temper recommended by the manufacturer for strength, corrosion resistance, and application of required finish; comply with ASTM B 221 for aluminum extrusions, ASTM B 209 for aluminum sheet or plate, and ASTM B 211 for aluminum bars, rods and wire.

B. Carbon steel reinforcement of aluminum framing members shall comply with ASTM A 36 for structural shapes, plates and bars, ASTM A 611 for cold rolled sheet and strip, or ASTM A 570 for hot rolled sheet and strip.

C. Glass and Glazing Materials: Comply with requirements of "Glass and Glazing" section of these specifications.

D. Fasteners: Provide fasteners of aluminum, nonmagnetic stainless steel, zinc plated steel, or other material warranted by the manufacturer to be noncorrosive and compatible with aluminum components, hardware, anchors and other components.

1. Reinforcement: Where fasteners screw-anchor into aluminum members less than 0.125 inches thick, reinforce the interior with aluminum or nonmagnetic stainless steel to receive screw threads, or provide standard noncorrosive pressed-in splined grommet nuts.
2. Foam Filler: Provide EPS Foam filler where indicated on drawings.

E. Concealed Flashing: 0.0179-inch (26 gage) minimum dead-soft stainless steel, or 0.026-inch-thick minimum extruded aluminum of alloy and type selected by manufacturer for compatibility with other components.

F. Brackets and Reinforcements: Provide high-strength aluminum brackets and reinforcements; where use of aluminum is not feasible provide nonmagnetic stainless steel or hot-dip galvanized steel complying with ASTM A 123.

G. Concrete and Masonry Inserts: Provide cast iron, malleable iron, or hot-dip galvanized steel inserts complying with ASTM A 123.

H. Compression Weatherstripping: Manufacturer's standard replaceable compressible weatherstripping gaskets of molded neoprene complying with ASTM D 2000 or molded PVC complying with ASTM D 2287.

2.3 HARDWARE

A. General: Refer to Division 8 Section "Door Hardware" for requirements for hardware items other than those indicated to be provided by the aluminum entrance manufacturer.

B. Provide heavy-duty hardware units as indicated, scheduled, or required for operation of each door, including the following items of sizes, number, and type recommended by manufacturer for service required; finish to match door.

1. Hinges: See door hardware schedule.
2. Door closers: See door hardware schedule.
3. Door-mounted Holder: See door hardware schedule.
4. Cylinders: See door hardware schedule.
5. Exit Device: See door hardware schedule.
6. Pull: See door hardware schedule.
8. Thresholds: See door hardware schedule.
9. Electrical Access Control: See door hardware schedule.

2.4 COMPONENTS

A. Storefront Framing System: Provide storefront and entrance framing systems fabricated from extruded aluminum members of size and profile indicated. Include subframes and other reinforcing members of the type indicated. Provide for glazing storefront from the exterior. Shop-fabricate and preassemble frame components where possible.

1. Mullion Configurations: Provide pockets at the inside glazing face to receive resilient elastomeric glazing. Mullions shall be one piece. Make provisions to drain moisture accumulation to the exterior.

B. Stile-and-Rail Type Entrance Doors: Provide tubular frame members, fabricated with mechanical joints using heavy inserted reinforcing plates and concealed tie-rods or j-bolts.

1. Glazing: Fabricate doors to facilitate replacement of glass or panels, without disassembly of stiles and rails. Provide snap-on-extruded aluminum glazing stops, with exterior stops anchored for nonremoval.

2 Design: Provide 1-3/4 inch-thick doors of design indicated.
   a. Wide stile (5” wide sides/top, bottom stile-10” wide).
   b. Center panel (door glazed with 2 or 3 lights).

C. Storefront Framing System: 4 ½ “ x 2” aluminum storefront system. This size is the minimum size, provide upsized components and reinforcing based upon loads, deflections, importance factors and final deferred approval requirements by approving agencies. Contractor shall verify all loads and requirements prior to bidding.

1. Minimum section properties of standard vertical mullion based on Kawneer Tri-Fab 451 storefront system, used as a standard for quality and utility:

O/S. PER.	=	27.512”
PNT. PER.	=	7.684”
AREA	=	1.022 lb/sf.
MASS	=	1.202 lb/lf.
1xx	=	2.618 IN 4
Cxx	=	2.266 “
Sxx	=	1.155 IN 3

Iyy	=	0.425 IN 4
Cyy	=	1.238”
Syy	=	0.343 IN 3
TYP. WALL	=	0.070”
TYP. RADI1	=	0.020”
TYP. OS CNR	=	0.015”

2.5 FABRICATION

A. General: Fabricate aluminum entrance and storefront components to designs, sizes and thicknesses indicated and to comply with indicated standards. Sizes and profile requirements are indicated on the drawings. Variable dimensions are indicated, with maximum and minimum dimensions required, to achieve design requirements and coordination with other work.

B. Prefabrication: Complete fabrication, assembly, finishing, hardware application, and other work to the greatest extent possible before shipment to the Project site. Disassemble components only as necessary for shipment and installation.

1. Perform fabrication operations, including cutting, fitting, forming, drilling and grinding of metal work to prevent damage to exposed finish surfaces. Complete these operations for hardware prior to application of finishes.
2. Do not drill and tap for surface-mounted hardware items until time of installation at project site.

C. Welding: Comply with AWS recommendations. Grind exposed welds smooth to remove weld spatter and welding oxides. Restore mechanical finish.

1. Welding behind finished surfaces shall be performed in such a manner as to minimize distortion and discoloration on the finished surface.

D. Reinforcing: Install reinforcing as required for hardware and as necessary for performance requirements, sag resistance and rigidity.

E. Dissimilar Metals: Separate dissimilar metals with bituminous paint, or a suitable sealant, or a nonabsorptive plastic or elastomeric tape, or a gasket between the surfaces. Do not use coatings containing lead.

F. Continuity: Maintain accurate relation of planes and angles with hairline fit of contacting members.

1. Uniformity of Metal Finish: Abutting extruded aluminum members shall not have an integral color or texture variation greater than half the range indicated in the sample pair submittal.

G. Fasteners: Conceal fasteners wherever possible.

H. Weatherstripping: For exterior doors, provide compression weatherstripping against fixed stops. At other edges, provide sliding weatherstripping retained in adjustable strip mortised into door edge.

1. Provide EPDM or vinyl-blade gasket weatherstripping in bottom door rail, adjustable for contact with threshold.
2. At interior doors and other locations without weatherstripping, provide neoprene silencers

on stops to prevent metal-to-metal contact.

2.6 FINISHES

A. General: Comply with NAAMM "Metal Finishes Manual" for recommendations relative to application and designations of finishes.

B. Finish designations prefixed by "AA" conform to the system established by the Aluminum Association for designating aluminum finishes.

C. Class I Clear Anodized Finish: AA-M12C22A31 (Mechanical Finish: as fabricated, nonspecular; Chemical Finish: etched, medium matte; Anodic Coating: Class I Architectural, clear film thicker than 0.7 mil).

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and supports, with the Installer present, for compliance with requirements indicated, installation tolerances, and other conditions that affect installation of aluminum entrances and storefronts. Correct unsatisfactory conditions before proceeding with the installation.

1. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 INSTALLATION

A. Comply with manufacturer's instructions and recommendations for installation.

B. Set units plumb, level, and true to line, without warp or rack of framing members, doors, or panels. Install components in proper alignment and relation to established lines and grades indicated. Provide proper support and anchor securely in place.

C. Construction Tolerances: Install aluminum entrance and storefront to comply with the following tolerances:

1. Variation from Plane: Do not exceed 1/8 inch in 12 feet of length or 1/4 inch in any total length.
2. Offset from Alignment: The maximum offset from true alignment between two identical members abutting end to end in line shall not exceed 1/16 inch.
3. Diagonal Measurements: The maximum difference in diagonal measurements shall not exceed 1/8 inch.
4. Offset at Corners: The maximum out-of-plane offset of framing at corners shall not exceed 1/32 inch.

D. Separate aluminum and other corrodible metal surfaces from sources of corrosion or electrolytic action at points of contact with other materials.

1. Zinc or cadmium plate steel anchors and other unexposed fasteners after fabrication.
2. Paint dissimilar metals where drainage from them passes over aluminum.
3. Paint aluminum surfaces in contact with mortar, concrete or other masonry with alkali

resistant coating.

4. Paint wood and similar absorptive material in contact with aluminum and exposed to the elements or otherwise subject to wetting, with two coats of aluminum house paint. Seal joints between the materials with sealant.

E. Drill and tap frames and doors and apply surface-mounted hardware items. Comply with hardware manufacturer's instructions and template requirements. Use concealed fasteners wherever possible.

F. Set sill members and other members in bed of sealant as indicated, or with joint fillers or gaskets as indicated to provide weathertight construction. Comply with requirements of Division 7 for sealants, fillers, and gaskets.

G. Refer to "Glass and Glazing" Section of Division 8 for installation of glass and other panels indicated to be glazed into doors and framing, and not preglazed by manufacturer.

3.3 ADJUSTING

A. Adjust operating hardware to function properly, for smooth operation without binding, and for weathertight closure.

3.4 CLEANING

A. Clean the completed system, inside and out, promptly after installation, exercising care to avoid damage to coatings.

B. Clean glass surfaces after installation, complying with requirements contained in the "Glass and Glazing" Section for cleaning and maintenance. Remove excess glazing and sealant compounds, dirt and other substances from aluminum surfaces.

3.5 PROTECTION

A. Institute protective measures required throughout the remainder of the construction period to ensure that aluminum entrances and storefronts will be without damage or deterioration, other than normal weathering, at time of acceptance.

END OF SECTION 084113

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of contract, including General and Supplementary Conditions and Division 00 & 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes, but is not limited to the following:

1. Door Hardware.
2. Storefront and entrance door hardware.

B. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 06 Section "Finish Carpentry" for installation of hardware.
2. Division 08 Section "Aluminum Entrances and Storefronts" for aluminum entrance doors.
3. Division 26 Section “Electrical” for hardware coordination.
4. Division 28 Section “Electronic Access Control System” for hardware coordination.

C. Specific Omissions: Hardware for the following is specified or indicated elsewhere.

1. Windows.
2. Cabinets of all kinds, including open wall shelving and locks.
3. Signs, Except as noted.
4. Toilet accessories of all kinds including grab bars.
5. Installation.
6. Rough hardware.
7. Corner Guards.
8. Access doors and panels.

1.3 REFERENCES:

A. Use date of standard in effect as of Bid date.
B. American National Standards Institute - ANSI 156.18 - Materials and Finishes.
C. ADA - Americans with Disabilities Act of 2020
D. BHMA - Builders Hardware Manufacturers Association
E. DHI - Door and Hardware Institute
F. NFPA - National Fire Protection Association
   1. NFPA 80 - Fire Doors and Windows
   2. NFPA 101 - Life Safety Code
   3. NFPA 105 - Smoke and Draft Control Door Assemblies
G. UL - Underwriters Laboratories
   1. UL 10C - Fire Tests of Door Assemblies (Positive Pressure)
   2. UL 305 - Panic Hardware
H. WHI - Warnock Hersey Incorporated
I. State of California Building Code
K. SDI - Steel Door Institute
L. WDI - Wood Door Institute
M. AWI - Architectural Woodwork Institute

N. NAAM - National Association of Architectural Metal Manufacturers

1.4 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 01 Specification sections.

B. Product data including manufacturers' technical product data for each item of door hardware, installation instruction, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.

C. Organize schedule into "Hardware Sets" with an index of doors and heading, indicating complete designations of every item required for each door or opening. Include the following information:

1. Type, style, function, size, quantity and finish of each hardware item. Use BHMA Finish codes as per ANSI A156.18.
2. Name, part number and manufacturer of each item.
3. Fastenings and other pertinent information.
4. Location of hardware set cross referenced to indications on drawings both on floor plans and in door schedule.
5. Explanation of all abbreviations, symbols, and codes contained in schedule.
6. Mounting locations for hardware.
7. Door and frame sizes and materials and degree of swing.
8. Include a list of all manufacturers used and their nearest representative with address and phone number.
9. Submit manufacturer's technical data and installation instructions for the electronic hardware.
10. Provide data file of final installed hardware sets on compact disk with certification that hardware installed complies with Project requirements.

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Obtain each kind of hardware (latch and lock sets, exit devices, hinges, and closers) from one manufacturer.

2. Supplier Qualifications: A recognized architectural door hardware supplier, with warehousing facilities in the Project's vicinity, that has a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that employs an experienced hardware consultant who is available to Owner, Architect, and Contractor, at reasonable times during the course of the Work, for consultation.

a. Require supplier to meet with Owner to develop and finalize keying requirements and to obtain final instructions in writing.
b. Be available for consultation with the Architect at no additional cost to the Owner during progress of construction at job site.
c. Be present at substantial completion of construction, and:

1) Inspect installation of all finish hardware items.
2) Make all minor adjustments required.
3) Report to the Architect on completeness of the installation.

B. Exit Doors: Openable from the inside without the use of a key or any special knowledge or effort.

C. Electronic Security Hardware: Coordinate installation of the electronic security hardware with the Architect and provide installation and technical data to the Architect and other related sub-contractor. Upon completion of electronic security hardware installation verify that all components are working properly, and state in the required guarantee that this inspection has been performed.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Acceptance at Site: Individually package each unit of finish hardware complete with proper fastening and appurtenances, clearly marked on the outside to indicate contents and specific locations in the Work.

B. Deliver packaged hardware items at the times and to the locations (shop or field) for installation, as directed by the Contractor.

C. Unused Hardware: Return new hardware not installed and existing hardware not indicated to be reinstalled to the Owner.
   1. Box and label in original manufacturer's-type boxes. Deliver to Owner to location directed by Architect.

D. Provide secure lock-up for door hardware delivered to the Project, but not yet installed. Control handling and installation of hardware items that are not immediately replaceable so that completion of the Work will not be delayed by hardware losses both before and after installation.

1.7 PROJECT CONDITIONS AND COORDINATION

A. Coordination: Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents.
   1. Embedded and attached items to concrete.

   2. Backing in walls for related hardware items.

   3. Finish floor materials and floor-mounted hardware, including height differentials.

   4. Conduit and raceways as required for electrical, electronic and electro-pneumatic hardware items. Fire/life-safety system interfacing. Point-to-point wiring diagrams plus riser diagrams to related trades.

   5. Furnish manufacturers templates to door and frame fabricators.

   6. Check Shop Drawings for doors and entrances to confirm that adequate provisions will be made for proper hardware installation.
      a. Confirm that door manufacturers furnish necessary UBC-7-2 compliant seal system.

B. Check the Shop Drawings for doors and entrances to confirm that adequate provisions will be made for the proper installation of hardware.

1. Provide written documentation that this requirement has been done prior to installation of hardware.

1.8 WARRANTY

A. Provide guarantee from hardware supplier as follows:

1. Closers: Thirty years.
2. Exit Devices: Three years.
3. All other Hardware: Two years.

B. Provide written documentation that the Hardware supplier has made an inspection of the finished installation, including the electrical, electronic and pneumatic hardware, and has verified that the hardware is functioning properly and is installed per manufacturer's written instructions.

1.10 COMMISSIONING:

A. Test door hardware operation with climate control system and stairwell pressurization system both at rest and while in full operation.

B. Test electronic hardware systems for satisfactory operation.

1.11 REGULATORY REQUIREMENTS:

A. Locate latching hardware between 34” to 44” above the finished floor, per California Building Code, Section 1008.1.9.2 and 11B-404.2.7.

1. Locate panic hardware between 36” to 44” above the finished floor.

B. Handles, pull, latches, locks, other operating devices: readily openable without tight grasping, tight pinching, or twisting of the wrist to operate. California Building Code 1008.1.9.1 and 11B-309.4.

C. Adjust doors to open with not more than 5.0 lbs pressure to open at exterior doors and 5.0 lbs at interior doors. As allowed per California Building Code, Section 11B-404.2.9, local authority may increase the allowable pressure for fire doors to achieve positive latching, but not to exceed 15 lbs.

D. Adjust door closer sweep periods so that from an open position of 90 degrees, the door will take at least 5 seconds to move to a point 12 degrees from the latch, measured to the landing side of the door, per California Building Code Section 11B-404.2.8.1.

E. Smooth surfaces at bottom 10” of push sides of doors, facilitating push-open with wheelchair footrests, per California Building Code Section 11B-404.2.10.

F. Door opening clear width no less than 32”, measured from face of frame stop, or edge of inactive leaf of pair of doors, to door face with door opened to 90 degrees. Hardware projection not a factor in clear width if located above 34” and the hardware projects no more than 4”. California Building Code Section 11B-404.2.3, 11B-404.2.4, and 1008.1.1.

G. Door opening clear height no less than 80” measured from top of sill to bottom of frame header stop. Projections into clear opening height not to exceed 4”. California Building Code Section 11B-404.2.3 and 1008.1.1.1.

H. Thresholds: floor or landing no more than 1/2” below the top of the threshold of the doorway. Change in level between 1/4“ and 1/2”: beveled to slope no greater than 1:2 (50 percent slope). California Building Code Section 11B-404.2.5.

I. Floor stops: Do not locate in path of travel. Locate no more than 4” from walls.

J. Pairs of doors: limit swing of one leaf to 90 degrees to protect persons reading wall-mounted tactile signage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Listed Acceptable Substitutes must provide the function and features of the specified product otherwise it will not be considered for substitution or approved.

B. Items listed with no substitute, manufacturers have been established by the Owner to be the existing standard per public contract code. No substitutions will be considered.

Item:	Manufacturer:	Acceptable Substitution:
Continuous Hinges	(IVE) Ives	Select
Cylinders	(SCH)Schlage	Facility Standard
Exit Devices	(VON)Von Duprin	Facility Standard
Closers	(LCN)LCN	Facility Standard
Stops & Holders	(IVE) Ives	Trimco
Seals & Bottoms	(ZER) Zero	NGP

C. Furnish items of hardware required to complete the work in accordance with these specifications and the manufacturers instructions, including items of hardware inadvertently omitted from this specification. Items omitted to be of equal quality and type as indicated herein.

D. Where the exact types of hardware specified are not adaptable to the finished shape or size of the members requiring hardware, furnish suitable types having as nearly as practicable the same operation and quality as the type specified, subject to Architect's approval.

E. Carefully inspect Project for the extent of the finish hardware required to complete the Work. Where there is a conflict between these Specifications and the existing hardware, furnish finish hardware to specification.

1. Provide notification of conflict to Architect thirty (30) days prior to Contractor proceeding with project hardware installation.

2.2 HANGING MEANS:

A. Continuous Hinges:

1. Geared-type aluminum at exteriors: include a non-removable cap to guard against foreign material, e.g. sticks, sand, epoxy, etc.
   a. Heavy-duty, double-bearing units for doors over 3 foot, 5 inches in width.
   b. Heavy-duty, double-bearing units for doors with panic hardware or fire exit devices.

2. Pinned steel/stainless steel type: continuous stainless steel 1/4 inch diameter hinge.

2.3 EXIT DEVICES/PANIC HARDWARE

A. General features:

1. Independent lab-tested 1,000,000 cycles.

2. Push-through touch pad design. No exposed touch bar fasteners, no exposed cavities when operated. Return stroke fluid dampeners and rubber bottoming dampeners, plus anti-rattle devices.
3. 3/4" throw deadlocking latchbolts.
4. No exposed screws to show through glass doors.
5. Non-handed basic device design with center case interchangeable with all functions, no extra parts required to effect change of function.
6. Releasable in normal operation with 5-lb. maximum operating force..
7. Comply with CBC Section 1008.1.10 and 11B-309.4.

2.4 CLOSERS

A. General: One manufacturer for closer units throughout the Work, including surface closers, high security closers, overhead concealed closers, floor closers, low-energy door operators and electromagnetic hold-open closers.

B. Surface Closers:
1. Full rack-and-pinion type cylinder with removable non-ferrous cover and cast iron body. Double heat treated pinion shaft, single piece forged piston, chrome-silicon steel spring.
2. ISO 2000 certified. Units stamped with date-of-manufacture code.
3. Independent lab-tested 10,000,000 cycles.
4. Thru-bolts at wood doors unless doors are provided with closer blocking. Non-sized and adjustable. Place closers inside building, stairs, and rooms.
5. Plates, brackets and special templating when needed for interface with particular header, door and wall conditions and neighboring hardware.
6. Adjustable to open with not more than 5.0lbs pressure to open at exterior doors and 5.0lbs at interior doors. As allowed per California Building Code, Section 11B-404.2.9, local authority may increase the allowable pressure for fire doors to achieve positive latching, but not to exceed 15lbs.
7. Separate adjusting valves for closing speed, latching speed and backcheck, fourth valve for delayed action where scheduled.
8. Extra-duty arms (EDA) at exterior doors scheduled with parallel arm units.
9. Exterior door closers: tested to 100 hours of ASTM B117 salt spray test, furnish data on request.
10. Exterior doors to not require seasonal adjustments in temperatures from 120 degrees F to -30 degrees F, furnish data on request.
11. Non-flaming fluid, will not fuel door or floor covering fires.

2.5 OTHER HARDWARE

A. Door stops: Provide stops to protect walls, casework or other hardware.
1. Unless otherwise noted in Hardware Sets, provide wall type with appropriate fasteners. Where wall type cannot be used, provide floor type. If neither can be used, provide overhead type.

B. Fasteners: Generally, exposed screws to be Phillips or Robertson drive. Pinned TORX drive at high security areas. Flat head sleeve anchors (FHSL) may be slotted drive. Sheet metal and wood screws: full-thread. Sleeve nuts: full length to prevent door compression.

2.6 FINISH

A. Generally BHMA 626 Dull Chromium, unless otherwise noted.

B. Door closers shall be factory powder coated to match other hardware, unless otherwise noted.

C. Aluminum items: match predominant adjacent material.

2.7 KEYING REQUIREMENTS

A. Initiate and conduct meeting(s) with the Owner and a representative from Ingersoll-Rand Security Technologies to determine the Key System requirements. Keying system shall be approved by Owner's representative in writing. Furnish construction key system in accordance with lock manufacturers standard. Where interchangeable core systems are used, use temporary cores for construction keying. Stamp keys "Do Not Duplicate".

1. Key system: Schlage Everest Restricted “D”.

B. Locks and cylinders: Keyed at the factory of the lock manufacturer where permanent records are maintained. Locks and cylinders shall be of the same manufacturer.

C. Permanent keys: Deliver only to Owner's representative.

D. Quantity of Keys:

1. Change Keys: Three per cylinder with a maximum of ten keys per keyed alike group. Furnish balance due as blanks.
2. Master Keys: Six per set.
3. Control Keys: Two.
4. Construction Keys: Ten.
5. Construction Control Keys: Two.

E. Keying Schedule: Submit three copies indicating how the Owner's final instructions has been fulfilled.

F. Key Transcript: Supply to Owner upon completion.

G. Permanent cylinders and keys shall be delivered directly to the Owner. Upon Project completion, Owner shall install permanent cylinders.

H. Temporary cylinders shall be furnished and installed as required for security and testing for proper operation of locking hardware.

PART 3 - EXECUTION

3.1 HARDWARE LOCATIONS

A. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility and security codes.

1. Where new hardware is to be installed near existing doors/hardware which are scheduled to remain, match locations of the existing hardware.
2. Notify Architect of any code conflicts before ordering material.

3.2 INSTALLATION

A. Mount hardware units at heights indicated in following applicable publications, except as specifically indicated or required to comply with governing regulations and except as otherwise directed by Architect.

1. "Recommended Locations for Builders Hardware for standard Steel Doors and Frames" by Door and Hardware Institute and as indicated herein.
2. NWWDA Industry Standard I.S.1.7, "Hardware Locations for Wood Flush Doors."

B. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Where cutting and fitting is required to install hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation or application of surface protection with finishing work specified in the Division 9 Sections. Do not install surface-mounted items until finishes have been completed on the substrates involved.

C. Set units level, plumb, and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.

C. Use manufacturers' fasteners furnished with hardware items, or submit Request for substitution with Architect.

3.3 ADJUSTING

A. Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every component. Replace components which cannot be adjusted, to operate freely and smoothly.

1. Hardware damaged by improper adjustment methods to be repaired or replaced to Owner's satisfaction.

B. Inspection: Contractor will notify Architect that the hardware has been completely installed and correctly adjusted. Architect will perform verification of the installation.

C. Final inspection: Installer to provide letter to Owner that upon completion installer has visited the Project and accomplished the following:

1. Re-adjust all hardware.
2. Evaluate maintenance procedures and recommend changes or additions, and instruct owner's personnel.
3. Identify items that have deteriorated or failed.
4. Submit a written report identifying problems.

3.4 DEMONSTRATION:

A. Demonstrate electronic hardware systems, including adjustment and maintenance procedures.

3.5 PROTECTION/CLEANING:

A. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.

B. Clean adjacent wall, frame and door surfaces soiled from installation/reinstallation process.

3.6 SCHEDULE OF FINISH HARDWARE

A. The Door Schedule on the Drawings indicates which Hardware Set is used with each door.

HW SET: 01

2	EA	POWER TRANSFER	EPT-10	689	VON
2	EA	CONTINUOUS HINGE	112XY EPT	628	IVE
1	EA	MULLION	KR4954 X 2-154	689	VON
1	EA	PANIC HARDWARE	QELX-RX-98DT X 990DT-PA	626	VON
1	EA	PANIC HARDWARE	QELX-RX-98NL X 990NL-PA	626	VON
2	EA	PRIMUS CORE ONLY	20-030	626	SCH
1	EA	RIM CYLINDER	20-057-ICX (SPECIFY A, B OR C)	626	SCH
1	EA	MORTISE CYLINDER	20-061 ICX (MULLION)	626	SCH
1	EA	MULLION SEAL	8780	BLK	ZER
2	EA	SURFACE CLOSER	4111 H-EDA	689	LCN
2	EA	MOUNTING PLATE	4110-18	689	LCN
2	EA	DOME STOP	FS438 435 436 437 AS REQU'D	626	IVE
2	EA	DOOR POSITION SWITCH	679-05 HM		SCE

DOORS NORMALLY CLOSED AND LOCKED. DOOR UNLOCKED BY VALID CARD READER OR PROGRAMMED TIME UNLOCK. FREE EGRESS AT ALL TIMES.
PERIMETER SEALS BY DOOR MANUFACTURER

END OF SECTION 087100

SECTION 088000 - GLASS AND GLAZING

10/06/14

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 0 & 1 Specification sections, apply to work of this section.

1.2 SUMMARY:

A. This Section includes, but not limited to, the following:

1. Extent of glass and glazing work is indicated on drawings. Where glazing is added to existing system, tint of glass shall match existing. Adjacent to be picked from available manufactured tints. Provide safety glazing per CBC Code requirements.

    a. 6 mm glass – clear.

2. Types of work in this section include glass and glazing for:

    a. Storefront construction.

B. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 8 Section "Aluminum Entrances and Storefronts" for storefront and entry doors.

1.3 SYSTEM DESCRIPTION:

A. Provide glass and glazing that has been produced, fabricated and installed to withstand normal thermal movement, wind loading and impact loading (where applicable), without failure including loss or breakage of glass, failure of sealants or gaskets to remain watertight and airtight, deterioration of glass and glazing materials and other defects in the work.

1. Normal thermal movement is defined as that resulting from an ambient temperature range of 120 deg. F (67 deg. C) and from a consequent temperature range within glass and glass framing members of 180 deg. F (100 deg. C).
2. Deterioration of insulating glass is defined as failure of hermetic seal due to other causes than breakage which results in intrusion of dirt or moisture, internal condensation or fogging, deterioration of protected internal glass coating, if any, resulting from seal failure, and any other visual evidence of seal failure or performance.
3. Deterioration of coated glass is defined as the development of manufacturing defects including peeling, cracking or other indications of deterioration in metallic coating due to normal conditions of use.

1.4 SUBMITTALS:

A. Product Data: Submit manufacturer's technical data for each glazing material and fabricated glass product required, including installation and maintenance instructions.

B. Samples: Submit, for verification purposes, 12" square samples of each type of glass indicated except for clear single pane units, and 12" long samples of each color required (except black) for each type of sealant or gasket exposed to view. Install sealant or gasket sample between two strips of material representative of adjoining framing system in color.

C. Certificate: Submit certificates from respective manufacturers attesting that glass and glazing materials furnished for project comply with requirements.

1. Separate certification will not be required for glazing materials bearing manufacturer's permanent labels designating type and thickness of glass, provided labels represent a quality control program involving a recognized certification agency or independent testing laboratory acceptable to authorities having jurisdiction.

D. Compatibility and Adhesion Test Report: Submit statement from sealant manufacturer indicating that glass and glazing materials have been tested for compatibility and adhesion with glazing sealants and interpreting test results relative to material performance, including recommendations for primers and substrate preparation needed to obtain adhesion.

E. Project Closeout Requirements:

1. Insulated glass 5-year warranty.
2. Laminated glass 5-year warranty.

1.5 QUALITY ASSURANCE:

A. Glazing Standards: Comply with recommendations of Flat Glass Marketing Association (FGMA) "Glazing Manual" and "Sealant Manual" except where more stringent requirements are indicated. Refer to those publications for definitions of glass and glazing terms not otherwise defined in this section or other referenced standards.

B. Safety Glazing Standard: Where safety glass is indicated by "SG", and/or required by authorities having jurisdiction, provide type of products indicated which comply with CBC 2406 and ANSI Z97.1 and testing requirements of 16 CFR Part 1201 for category II materials.

C. Insulating Glass Certification Program: Provide insulating glass units permanently marked either on spacers or at least one component pane of units with appropriate certification label of inspecting and testing organization indicated below:

1. Insulating Glass Certification Council (IGCC).

D. Single Source Responsibility for Glass: To ensure consistent quality of appearance and performance, provide materials produced by a single manufacturer or fabricator for each kind and condition of glass indicated and composed of primary glass obtained from a single source for each type and class required.

E. Glazing materials and glazing subject to human impact shall comply with CBC Chapter 24.

1.6 DELIVERY, STORAGE, AND HANDLING:

A. Protect glass and glazing materials during delivery, storage and handling to comply with manufacturer's directions and as required to prevent edge damage to glass, and damage to glass and glazing materials from effects of moisture including condensation, of temperature changes, of

direct exposure to sun, and from other causes.

1. Where insulating glass units will be exposed to substantial altitude changes, avoid hermetic seal ruptures by complying with insulating glass fabricator's recommendations for venting and sealing.

1.7 PROJECT CONDITIONS:

A. Environmental Conditions: Do not proceed with glazing when ambient and substrate temperature conditions are outside the limits permitted by glazing material manufacturer or when joint substrates are wet due to rain, frost, condensation or other causes.

1.8 WARRANTY:

A. General: Warranties shall be in addition to, and not a limitation of, other rights the Owner may have under the Contract Documents.

B. Manufacturer's Special Project Warranty on Insulating Glass: Provide written warranty signed by manufacturer of insulating glass agreeing to furnish f.o.b. point of manufacture, freight allowed project site, within specified warranty period indicated below, replacements for those insulating glass units developing manufacturing defects. Manufacturing defects are defined as failure or hermetic seal of air space (beyond that due to glass breakage) as evidenced by intrusion of dirt or moisture, internal condensation or fogging, deterioration of protected internal glass coatings, if any, and other visual indications of seal failure or performance; provided the manufacturer's instructions for handling, installing, protecting and maintaining units have been complied with during the warranty period.

1. Warranty Period: Manufacturer's standard but not less than 5 years after date of notice of l completion. All labor and related work to install replaced glass shall be included in warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include; but are not limited to, the following:

1. Clear and Tinted Float Glass:

a. PPG Industries, Inc.

2.2 GLASS PRODUCTS, GENERAL:

A. Primary Glass Standard: Provide primary glass which complies with ASTM C 1036 requirements, including those indicated by reference to type, class, quality, and, if applicable, form, finish, mesh and pattern.

B. Heat-Treated Glass Standard: (Safety Glazing) Provide heat-treated glass which complies with

ASTM C 1048 requirements, including those indicated by reference to kind, condition, type, quality, class, and, if applicable, form, finish, and pattern.

C. Sizes: Fabricate glass to sizes required for glazing openings indicated, with edge clearances and tolerances complying with recommendations of glass manufacturer. Provide thicknesses indicated or, if not otherwise indicated, as recommended by glass manufacturer for application indicated.

D. Ceramic-Coated Heat-Treated Spandrel Glass: Condition B (spandrel glass, one surface ceramic coated), Type I (transparent glass, flat), Quality q^3 (glazing select), with ceramic coating applied to second surface and complying with the following requirements:

1. Kind FT (fully tempered).
2. Color: As indicated or, if not otherwise indicated, as selected by Architect from manufacturer's standard colors.

2.3 PRIMARY GLASS PRODUCTS:

A. Clear Float Glass: Type I (transparent glass, flat), Class 1 (clear), Quality q3 (glazing select).
1. Low iron glass:
a. Thickness – 6mm
b. Visible light transmittance – 91%
c. Reflectance – 8%
d. U-Value – 5.8
e. Shading Coefficient – 1.03
f. Basis of Design- The design for each piece of glass is based on the product named. Subject to compliance with requirements, provide either the named product or an approved comparable product by one of the other manufactures specified. Subject to compliance with requirements, manufacturers offering glass that may be incorporated into the Work include, but are not limited to, the following. Model numbers and names for glass manufactured by PPG Starphire below are listed to establish a standard of quality for design, function, materials and workmanship. Other manufacturers may be submitted for evaluation by the Architect. Approval shall be obtained 45 days after Contract date. The Architect shall be the sole judge as to the acceptability of all products submitted for substitution.
i. Starphire Ultra Clear Glass by PPG

2.4 HEAT-TREATED GLASS PRODUCTS (SAFETY GLAZING):

A. Manufacturing Process: Manufacture heat-treated glass as follows:

1. By vertical (tong-held) or horizontal (roller hearth) process, at manufacturer's option, except provide horizontal process where indicated as "tong less" or "free of tong marks".

B. Uncoated Clear Heat-Treated Float Glass: Condition A (uncoated surfaces), Type I (transparent glass, flat), Class 1 (clear), Quality q3 (glazing select), kind as indicated below.

1. Kind FT (fully tempered) where indicated and required by CBC. (SG--Safety Glazing indicated on Construction Documents.)

C. Uncoated Tinted Heat-Treated Float Glass: Condition A (uncoated surfaces), Type I (transparent glass, flat), Class 2 (tinted heat absorbing and light reducing), Quality q3 (glazing select), with tint color and performance characteristics for 1/4" thick glass matching those indicated for non-heat-treated tinted float glass; kind as indicated below:

1. Kind FT (fully tempered) where indicated and required by CBC.

2.5 ELASTOMERIC GLAZING SEALANTS AND PREFORMED GLAZING TAPES:

A. General: Provide products of type indicated and complying with the following requirements:

1. Compatibility: Select glazing sealants and tapes of proven compatibility with other materials with which they will come into contact, including glass products, seals of insulating glass units, and glazing channel substrates, under conditions of installation and service, as demonstrated by testing and field experience.
2. Suitability: Comply with recommendations of sealant and glass manufacturers for selection of glazing sealants and tapes which have performance characteristics suitable for applications indicated and conditions at time of installation.
3. Elastomeric Sealant Standard: Provide manufacturer's standard chemically curing, elastomeric sealant of base polymer indicated which complies with ASTM C 920 requirements, including those for Type, Grade, Class and Uses.
4. Colors: Provide color of exposed sealants indicated or, if not otherwise indicated, as selected by Architect from manufacturer's standard colors.

B. One-Part Non-Acid-Curing Silicone Glazing Sealant: Type S; Grade NS, Class 25; Uses NT, G, A, and, as applicable to uses indicated, O; and complying with the following requirements for modulus and additional joint movement capability. (Indicated ES5 on Plans.)

1. Low Modulus: Tensile strength of 45 psi or less at 100 percent elongation when tested per ASTM D 412 after 14 days at 77 deg. F (20 deg. C) and 50 percent relative humidity.
2. Additional capability, when tested per ASTM C 719 for adhesion and cohesion under maximum cyclic movement, to withstand the following percentage increase and decrease of joint width, as measured at time of application, and remain in compliance with other requirements of ASTM C 920.

a. 50 percent each way for a total 100% movement.

C. Preformed Butyl-Polyisobutylene Glazing Tape: Provide manufacturer's standard solvent-free butyl-polyisobutylene formulation with a solids content of 100 percent; complying with AAMA A 804.1; in extruded tape form; non-staining and non-migrating in contact with nonporous surfaces; packaged on rolls with a release paper on one side; with or without continuous spacer rod as recommended by manufacturers of tape and glass for application indicated.

D. Available Products: Subject to compliance with requirements, glazing sealants which may be incorporated in the work include, but are not limited to, the following:

1. One-Part Non-Acid Curing Low-Modulus Silicone Glazing Sealant:

a. "Dow Corning 795"; Dow Corning Corp.
b. "895"; Pecora Corp.

2. Preformed Butyl-Polyisobutylene Glazing Tape Without Spacer Rod:

a. "Chem-Tape 40"; Bostik Construction Products Div.
b. "Extru-Seal"; Pecora Corp.
c. "PTI 303" Glazing Tape; Protective Treatments, Inc.
d. "Tremco 440 Tape"; Tremco Inc.

3. Preformed Butyl-Polyisobutylene Glazing Tape With Spacer Rod:

    a. "Chem-Tape 60"; Bostik Construction Products Div.
    b. "Shim-Seal"; Pecora Corp.
    c. "PTI 303" Shim Tape; Protective Treatments, Inc.
    d. "Pre-shimmed Tremco 440 Tape"; Tremco Inc.

2.6 GLAZING GASKETS:

A. Lock-Strip Gaskets: Neoprene extrusions of size and shape indicated, fabricated into frames with molded corner units and zipper lock strips, complying with ASTM C 542; black.

B. Dense Elastomeric Compression Seal Gaskets: Molded or extruded gaskets of material indicated below, complying with ASTM C 864, of profile and hardness required to maintain watertight seal:

1. Neoprene.
2. EPDM.
3. Thermoplastic polyolefin rubber.
4. Any material indicated above.

C. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

1. Manufacturers of Lock-Strip Gaskets:

    a. Cadillac Rubber & Plastics, Inc.
    b. Maloney Precision Products Co.
    c. The Standard Products Co.

2. Manufacturers of Preformed Gaskets:

    a. D. S. Brown Co.
    b. Maloney Precision Products Co.
    c. Tremco.

2.7 MISCELLANEOUS GLAZING MATERIALS:

D. Compatibility: Provide materials with proven record of compatibility with surfaces contacted in installation.

E. Cleaners, Primers and Sealers: Type recommended by sealant or gasket manufacturer.

F. Setting Blocks: Neoprene, EPDM or silicone blocks as required for compatibility with glazing sealants, 80 to 90 Shore A durometer hardness.

G. Spacers: Neoprene, EPDM or silicone blocks, or continuous extrusions, as required for compatibility with glazing sealant, of size, shape and hardness recommended by glass and sealant manufacturers for application indicated.

H. Edge Blocks: Neoprene, EPDM or silicone blocks as required for compatibility with glazing sealant, of size and hardness required to limit lateral movement (side-walking) of glass.

PART 3 - EXECUTION

3.1 EXAMINATION:

A. Require Glazier to inspect work of glass framing erector for compliance with manufacturing and installation tolerances, including those for size, squareness, offsets at corners; for presence and functioning of weep system; for existence of minimum required face or edge clearances; and for effective sealing of joinery. Obtain Glazier's written report listing conditions detrimental to performance of glazing work. Do not allow glazing work to proceed until unsatisfactory conditions have been corrected.

3.2 PREPARATION:

A. Clean glazing channels and other framing members to receive glass, immediately before glazing. Remove coatings, which are not firmly bonded to substrates. Remove lacquer from metal surfaces where elastomeric sealants are indicated for use.

3.3 GLAZING, GENERAL:

A. Comply with combined printed recommendations of glass manufacturers, of manufacturers of sealants, gaskets and other glazing materials, except where more stringent requirements are indicated, including those of referenced glazing standards.

B. Glazing channel dimensions as indicated in details are intended to provide for necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances. Adjust as required by job conditions at time of installation.

C. Protect glass from edge damage during handling and installation; use a rolling block in rotating glass units to prevent damage to glass corners. Do not impact glass with metal framing. Use suction cups to shift glass units within openings; do not raise or drift glass with a pry bar. Rotate glass with flares or bevels along one horizontal edge which would occur in vicinity of setting blocks so that these are located at top of opening. Remove from project and dispose of glass units with edge damage or other imperfections of kind that, when installed, weakens glass and impairs performance and appearance.

D. Apply primers to joint surfaces where required for adhesion of sealants, as determined by pre-construction sealant-substrate testing.

3.4 GLAZING:

A. Install setting blocks of proper size in sill rabbet, located one quarter of glass width from each corner, but with edge nearest corner not closer than 6" from corner, unless otherwise required. Set blocks in thin course of sealant, which is acceptable for heel bead use.

B. Provide spacers inside and out, of correct size and spacing to preserve required face clearances, for glass sizes larger than 50 united inches (length plus height), except where gaskets or glazing tapes with continuous spacer rods are used for glazing. Provide 1/8" minimum bite of spacers on glass and use thickness equal to sealant width, except with sealant tape use thickness slightly less than final compressed thickness of tape.

C. Provide edge blocking to comply with requirements of referenced glazing standard, except where otherwise required by glass unit manufacturer.

D. Set units of glass in each series with uniformity of pattern, draw, bow and similar characteristics.

E. Provide compressible filler rods or equivalent back-up material, as recommended by sealant and glass manufacturers, to prevent sealant from extruding into glass channel weep systems and from adhering to joints back surface as well as to control depth of sealant for optimum performance, unless otherwise indicated.

F. Force sealants into glazing channels to eliminate voids and to ensure complete "wetting" or bond of sealant to glass and channel surfaces.

G. Tool exposed surfaces of sealants to provide a substantial "wash" away from glass. Install pressurized tapes and gaskets to protrude slightly out of channel, so as to eliminate dirt and moisture pockets.

H. Where wedge-shaped gaskets are driven into one side of channel to pressurize sealant or gasket on opposite side, provide adequate anchorage to ensure that gasket will not "walk" out when installation is subjected to movement.

I. Miter cut wedge-shaped gaskets at corners and install gaskets in manner recommended by gasket manufacturer to prevent pull away at corners; seal corner joints and butt joints with sealant recommended by gasket manufacturer.

3.5 PROTECTION AND CLEANING:

A. Protect exterior glass from breakage immediately upon installation by use of crossed streamers attached to framing and held away from glass. Do not apply markers to surfaces of glass. Remove nonpermanent labels and clean surfaces.

B. Protect glass from contact with contaminating substances resulting from construction operations. If, despite such protection, contaminating substances do come into contact with glass, remove immediately by method recommended by glass manufacturer.

C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less often than once a month, for build-up of dirt, scum, alkali deposits or staining. When examination reveals presence of these forms of residue, remove by method recommended by glass manufacturer.

D. Remove and replace glass which is broken, chipped, cracked, abraded or damaged in other ways during construction period, including natural causes, accidents and vandalism.

E. Wash glass on both faces not more than 4 days prior to date scheduled for inspections intended to establish date of substantial completion in each area of project. Wash glass by method recommended by glass manufacturer.

END OF SECTION 088000

SECTION 092900 - GYPSUM BOARD ASSEMBLIES

09/30/22

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but not limited to, the following:

1. Non-load-bearing steel framing members for gypsum board assemblies.
2. Backing for accessories not limited to door hardware, hold opens, grab bars, accessories, related items and misc. items.
3. Patching existing walls - match adjacent finish.

B. Related Sections include the following:

1. Division 7 Section "Sprayed Fire Resistive Materials" for fireproofing structural steel members concealed behind gypsum board assemblies.
2. Division 7 Section "Joint Sealants" for related sealants.

1.3 DEFINITIONS

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

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Show locations, fabrication, and installation of control and expansion joints including plans, elevations, sections, details of components, and attachments to other units of Work.

C. Samples: For the following products:

1. Trim Accessories: Full-size sample in 12-inch- (300-mm-) long length for each trim accessory indicated.
2. Textured Finishes: For each textured finish indicated and on same backing indicated for Work.

1.5 QUALITY ASSURANCE

A. Sound Transmission Characteristics: For gypsum board assemblies with STC ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by a qualified independent testing agency.

1. STC-Rated Assemblies: Indicated by design designations from GA-600, "Fire Resistance Design Manual."

B. Gypsum Board Finish Mockups: Before finishing gypsum board assemblies, install mockups of at least 100 sq. ft. (9 sq. m) in surface area to demonstrate aesthetic effects and qualities of materials and execution.

1. Install mockups for the following applications:

a. Surfaces with texture finishes.
b. Surfaces indicated to receive nontextured paint finishes.
c. Surfaces indicated to receive textured paint finishes.

2. Simulate finished lighting conditions for review of mockups.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.

B. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes. Stack gypsum panels flat to prevent sagging.

1.7 PROJECT CONDITIONS

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

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Steel Framing and Furring:

a. Clark Dietrich Building Systems.
b. Scafco Corporation.
c. Western Metal Lath & Steel Framing Systems.

2. Gypsum Board and Related Products:

a. American Gypsum Co.
b. Georgia Pacific Gypsum LLC.

c. National Gypsum Company.
d. United States Gypsum Co.

2.2 STEEL PARTITION AND SOFFIT FRAMING

A. Components, General: As follows:

1. Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include manufacturing members of the Steel Stud Manufacturing Association (SSMA). All products and installation shall comply with ICC-ESR-3064P and the “Product Technical Information” manual published by the SSMA unless specifically detailed otherwise.
2. Comply with ASTM C 754 for conditions not specifically detailed.
3. Component physical (AISI effective) properties shall meet or exceed those provided in the SSMA “Product Technical Guide”, 2009/2012 IBC Edition available at: www.ssma.com/filebin/pdf/SSMA_2012_Product_Tech_Catalog_Interactive_with_ICC.pdf
4. Steel Sheet Components: Complying with ASTM C 645 requirements for metal and with manufacturer's standard corrosion-resistant zinc coating.

B. Steel Studs and Tracks: ASTM A 653 Grade 33 with a minimum yield point 33000 psi, with 1-3/8 inch flanges (unless noted otherwise) and .375 minimum stiffening lip and complying with the following requirements for minimum thickness of base (uncoated) metal and for depth. Provide minimum 20ga studs at 16" o.c. at all walls. (Refer to Wall Legend and Wall Sections on Plans.) Provide unpunched joists of the depth and gage indicated on the plans (see reflected ceiling plans).

C. Steel Stud Track (1-1/2" flange):

1. Track gauge shall be as follows:

a. 20ga studs use 18ga top/bottom track and ceiling ledgers.
a. 18ga studs use16ga top/bottom track and ceiling ledgers.

D. Proprietary Deflection Track: Steel sheet top runner manufactured to prevent cracking of gypsum board applied to interior partitions resulting from deflection of structure above; in thickness indicated for studs and in width to accommodate depth of studs.

1. Available Product: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

a. Slip Track Systems, Inc. (ICC ESR-1042).

E. Flat Strap and Backing Plate: Steel sheet for blocking and bracing in length and width indicated.

1. Minimum Base Metal Thickness: As indicated.

G. Cold-Rolled Channel Bridging: 0.0538-inch (1.37-mm) bare steel thickness, with minimum 1/2-inch- (12.7-mm-) wide flange.

1. Depth: 1-1/2 inches (38.1 mm).
2. Clip Angle: 1-1/2 by 1-1/2 inch (38.1 by 38.1 mm), 0.068-inch- (1.73-mm-) thick, galvanized steel.

H. Hat-Shaped, Rigid Furring Channels: ASTM C 645.

1. Minimum Base Metal Thickness: 0.0179 inch (0.45 mm).
2. Depth: 1-1/2 inches (38.1 mm).

I. Resilient Furring Channels: 1/2-inch- (12.7-mm-) deep, steel sheet members designed to reduce sound transmission.

1. Configuration: Asymmetrical or hat shaped, with face attached to single flange by a slotted leg (web) or attached to two flanges by slotted or expanded metal legs.

J. Cold-Rolled Furring Channels: 0.0538-inch (1.37-mm) bare steel thickness, with minimum 1/2-inch- (12.7-mm-) wide flange.

1. Depth: 3/4 inch (19.1 mm).
2. Furring Brackets: Adjustable, corrugated-edge type of steel sheet with minimum bare steel thickness of 0.0312 inch (0.79 mm).
3. Tie Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.0625-inch- (1.59-mm-) diameter wire, or double strand of 0.0475-inch- (1.21-mm-) diameter wire.

K. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

L. Manufacture Backing Track: 14 gage backing plate pre-approved number R#0192.

1. Available Product: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

a. Metal-Lite, "Flush Mount".

M. Backing Pre-formed: Metal-Lite, Inc., or equal, 6” x 1-1/4” x 16ga pre-notched backing “Notch-Tite”. See plans for details

N. Steel Rigid Furring Channels: ASTM C 645, hat-shaped, depth and minimum thickness of base (uncoated) metal as follows:

1. Depth: 7/8 inch.
2. Depth: 1-1/2inch.
3. Thickness: 0.0179 inch, unless otherwise indicated.

O. Furring Brackets: Serrated-arm type, adjustable, fabricated from corrosion-resistant steel sheet complying with ASTM C 645, minimum thickness of base (uncoated) metal of 0.0329 inch, designed for screw attachment to steel studs and steel rigid furring channels used for furring.

P. Steel Resilient Furring Channels: Manufacturer’s standard product designed to reduce sound transmission, fabricated from steel sheet complying with ASTM A 525 or ASTM A 568 to form ½-inch-deep channel of the following configuration:

1. Double-Leg Configuration: Hat-shaped channel, with 1-1/2-inch-wide face connected to flanges by double-slotted or expanded metal legs (webs).
2. Z Configuration Furring Channels. Made of min. 24-ga. corrosion-resistant steel used to mechanically attach other rigid insulation and gypsum panels or base to interior side of monolithic concrete and masonry walls. Sizes 1”, unless noted otherwise.

Q. Fasteners for Metal Framing: Provide fasteners of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel framing and furring members se-

curely to substrates involved; complying with the recommendations for gypsum board manufacturers for applications indicated.

2.3 INTERIOR GYPSUM WALLBOARD

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

B. Gypsum Wallboard: ASTM C 1396/ C 1396 with moisture and mold resistant core and paper faces.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but not limited to the following:

    a. Georgia-Pacific Gypsum LLC
    b. National Gypsum Company

2. Core: 5/8 inch (15.9 mm), Type X
3. Long Edge: Tapered.
4. Mold Resistance: ASTM D 3273, score of 10.

2.4 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.

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

2. Shapes:

    a. Cornerbead: Use at outside corners, unless otherwise indicated.
    b. Bullnose Bead: Use where indicated.
    c. LC-Bead (J-Bead): Use at exposed panel edges.
    d. L-Bead: Use where indicated.
    e. U-Bead: Use where indicated.
    f. Expansion (Control) Joint: Use where indicated.
    g. Curved-Edge Cornerbead: With notched or flexible flanges; use at curved openings.

B. Aluminum Trim: Extruded accessories of profiles and dimensions indicated.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. Fry Reglet Corp.
    b. Gordon, Inc.
    c. MM Systems Corporation.
    d. Pittcon Industries.

2. Aluminum: Alloy and temper with not less than the strength and durability properties of ASTM B 221 (ASTM B 221M), alloy 6063-T5.
3. Finish: Class II anodic finishes, clear.

2.5 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475.

B. Joint Tape:

1. Interior Gypsum Wallboard: Glassmat or Paper.

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

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

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

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

2.6 ACOUSTICAL SEALANT (Indicated as ES7 on drawings)

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

1. Acoustical Sealant for Exposed and Concealed Joints:

    a. Pecora Corp.; AC-20 FTR Acoustical and Insulation Sealant.
    b. United States Gypsum Co.; SHEETROCK Acoustical Sealant.

2. Acoustical Sealant for Concealed Joints:

    a. Ohio Sealants, Inc.; Pro-Series SC-170 Rubber Base Sound Sealant.
    b. Pecora Corp.; BA-98.
    c. Tremco, Inc.; Tremco Acoustical Sealant.

B. Acoustical Sealant for Exposed and Concealed Joints: Nonsag, paintable, nonstaining, latex sealant complying with ASTM C 834 that effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.

C. Acoustical Sealant for Concealed Joints: Nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic-rubber sealant recommended for sealing interior concealed joints to reduce airborne sound transmission.

2.7 AUXILIARY MATERIALS

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

B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.

C. Fastening Adhesive:

1. Wood: ASTM C 557.
2. Steel: Adhesive recommended for attaching panels to steel framing.

D. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.

1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch (0.84 to 2.84 mm) thick.

E. Sound Attenuation Blankets: ASTM C 665, Type I (blankets without membrane facing) produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool, or rock wool. See below for materials at plenum ceiling areas.

1. Fire-Resistance-Rated Assemblies: Comply with mineral-fiber requirements of assembly.
2. Plenum areas – use faced insulation mineral fiber ASTM C665 Type III Class A Category.

2.8 TEXTURE FINISHES

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

1. Texture Finish:

a. Goldbond Building Products, "Perfect Spray Em."
b. United States Gypsum Co.; SHEETROCK Wall and Ceiling Spray Texture.
c. Georgia Pacific, "GyProc Wall and Ceiling Texture."

2. Primer:

a. Hamilton Materials, “Prep Coat Plus.”
b. PPG SpeedHide® Max-Build High Build Drywall Surfacer 6-1.
c. Sherwin Williams Builders Solution A63W100 Latex Surfacer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Coordination with Sprayed Fire-Resistive Materials:

1. Before sprayed fire-resistive materials are applied, attach offset anchor plates or ceiling runners (tracks) to surfaces indicated to receive sprayed-on fire-resistive materials. Where offset anchor plates are required, provide continuous plates fastened to building structure not more than 24 inches (600 mm) o.c.
2. After sprayed fire-resistive materials are applied, remove them only to extent necessary for installation of gypsum board assemblies and without reducing the fire-resistive material thickness below that which is required to obtain fire-resistance rating indicated. Protect remaining fire-resistive materials from damage.

3.3 INSTALLING STEEL FRAMING, GENERAL

A. Installation Standards: ASTM C 754, and ASTM C 840 requirements that apply to framing installation.

B. Install supplementary framing, blocking, and bracing at terminations in gypsum board assemblies to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction. Comply with details indicated and with gypsum board manufacturer's written recommendations or, if none available, with United States Gypsum's "Gypsum Construction Handbook."

C. Isolate steel framing from building structure at locations indicated to prevent transfer of loading imposed by structural movement.

1. Isolate ceiling assemblies where they abut or are penetrated by building structure.
2. Isolate partition framing and wall furring where it abuts structure, except at floor. Install slip-type joints at head of assemblies that avoid axial loading of assembly and laterally support assembly.

    a. Use proprietary deflection track where indicated.
    b. Use proprietary firestop track where indicated.

D. Do not bridge building control and expansion joints with steel framing or furring members. Frame both sides of joints independently.

3.4 INSTALLING STEEL PARTITION AND SOFFIT FRAMING

A. Install tracks (runners) at floors, ceilings, and structural walls and columns where gypsum board assemblies abut other construction.

B. Installation Tolerance: Install each steel framing and furring member so fastening surfaces vary not more than 1/8 inch (3 mm) from the plane formed by the faces of adjacent framing.

C. Extend partition framing full height to structural supports or substrates above suspended ceilings, except where partitions are indicated to terminate at suspended ceilings. Continue framing over frames for doors and openings and frame around ducts penetrating partitions above ceiling to provide support for gypsum board.

1. For fire-resistance-rated and STC-rated partitions that extend to the underside of floor/roof slabs and decks or other continuous solid-structure surfaces to obtain ratings, install framing around structural and other members extending below floor/roof slabs and decks, as needed to support gypsum board closures and to make partitions continuous from floor to underside of solid structure.

a. Terminate partition framing at suspended ceilings where indicated.

D. Install steel studs so flanges point in the same direction and leading edge or end of each panel can be attached to open (unsupported) edges of stud flanges first.

E. Frame door openings to comply with GA-600 and with gypsum board manufacturer's applicable written recommendations, unless otherwise indicated. Screw vertical studs at jambs to jamb anchor clips on door frames; install runner track section (for cripple studs) at head and secure to jamb studs.

1. Install two studs at each jamb, unless otherwise indicated.
2. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch (13-mm) clearance from jamb stud to allow for installation of control joint.

F. Frame openings other than door openings the same as required for door openings, unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.

G. Clean all stud cavities of debris, excess materials and dust prior to closing wall in.

3.5 APPLYING AND FINISHING PANELS, GENERAL

A. Use moisture and mold resistance gypsum board in the following areas:

1. Restrooms
2. Kitchens and preparation areas
3. Locker Rooms
4. Janitor rooms
5. Wet rooms

B. Gypsum Board Application and Finishing Standards: ASTM C 840 and GA-216.

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

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

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

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

G. Attach gypsum panels to steel studs so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

H. Attach gypsum panels to framing provided at openings and cutouts.

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

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

J. Space fasteners in gypsum panels according to referenced gypsum board application and finishing standard and manufacturer's written recommendations.

1. 12” OC maximum, see drawings for more restrictive locations.

K. Grout door frames per details.

L. Clean all stud cavities of debris, excess materials and dust prior to closing wall in.

3.6 PANEL APPLICATION METHODS

A. Single-Layer Application:

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

a. Stagger abutting end joints not less than one framing member in alternate courses of board.

B. Multilayer Application on Ceilings: Apply gypsum board indicated for base layers before applying base layers on walls/partitions; apply face layers in same sequence. Apply base layers at right angles to framing members and offset face-layer joints 1 framing member, 16 inches (400 mm) minimum, from parallel base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly.

C. Single-Layer Fastening Methods: Apply gypsum panels to supports with steel drill screws.

1. #6 x 1” minimum.

D. Multilayer Fastening Methods: Fasten base layers and face layers separately to supports with screws.

E. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, joists, furring members, or base layer of gypsum board), comply with gypsum board manufacturer's written recommendations and temporarily brace or fasten gypsum panels until fastening adhesive has set.

3.7 INSTALLING TRIM ACCESSORIES

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

B. Control Joints: Install control joints at locations indicated on Drawings

3.8 FINISHING GYPSUM BOARD ASSEMBLIES

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

B. Prefill open joints, rounded or beveled edges, and damaged surface areas.

C. Apply joint tape over gypsum board joints, except those with trim having flanges not intended for tape.

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

1. Level 1: Embed tape at joints in ceiling plenum areas, concealed areas, and where indicated, unless a higher level of finish is required for fire-resistance-rated assemblies and sound-rated assemblies.
2. Level 2: Embed tape and apply separate first coat of joint compound to tape, fasteners, and trim flanges where [panels are substrate for acoustical tile].
3. Level 3: Embed tape and apply separate first and fill coats of joint compound to tape, fasteners, and trim flanges where indicated.
4. Level 4: Embed tape and apply separate first, fill, and finish coats of joint compound to tape, fasteners, and trim flanges at panel surfaces that will be exposed to view, unless otherwise indicated.
5. Level 5: Embed tape and apply separate first, fill, and finish coats of joint compound to tape, fasteners, and trim flanges, and apply skim coat of joint compound over entire surface where indicated.

3.9 APPLYING TEXTURE FINISHES

A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes prior to applying texture finish. Apply primer to surfaces that are clean, dry, and smooth. The primer shall be applied to a dry film thickness of 1.7 to 1.8 mils.

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

1. Texture: Medium stipple at walls/ceilings painted eggshell. (arrange peel) to match existing wall finish.

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

3.10 FIELD QUALITY CONTROL.

A. Above-Ceiling Observation: The Architect will conduct an above-ceiling observation before installing gypsum board ceilings and report deficiencies in the Work observed. Do not proceed with installation of gypsum board to ceiling support framing until deficiencies have been corrected.

1. Notify the Architect seven days in advance of date and time when Project, or part of Project, will be ready for above-ceiling observation.

END OF SECTION 092900

SECTION 095123 - ACOUSTICAL TILE CEILINGS

05/12/15

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Divisions 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but is not limited to, the following:
   1. Ceilings consisting of acoustical tiles and concealed suspension systems.

1.3 SUBMITTALS

A. Product Data: For each type of product specified see data sheet at end of this section.

B. Coordination Drawings: Reflected ceiling plans drawn to scale and coordinating penetrations and ceiling-mounted items. Show the following:

   1. Ceiling suspension system members.
   2. Method of attaching suspension system hangers to building structure.
   3. Initial direct-access openings.
   4. Ceiling-mounted items including light fixtures; air outlets and inlets; speakers; sprinklers; and special moldings at walls, column penetrations, and other junctures of acoustical ceilings with adjoining construction.
   5. Minimum Drawing Scale: 1/8 inch = 1 foot (1:96).

C. Samples for Initial Selection: Manufacturer's color charts consisting of actual acoustical tiles or sections of acoustical tiles, suspension systems, and moldings showing the full range of colors, textures, and patterns available for each type of ceiling assembly indicated.

D. Samples for Verification: Full-size units of each type of ceiling assembly indicated; in sets for each color, texture, and pattern specified, showing the full range of variations expected in these characteristics.

   1. Full-size samples of each acoustical tile type, pattern, and color.
   2. Set of 12-inch- (300-mm-) long samples of concealed suspension system members.
   3. Set of 12-inch- (300-mm-) long samples of exposed moldings for each color and system type required.

E. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

F. Product Test Reports: Indicate compliance of acoustical tile ceilings and components with requirements based on comprehensive testing of current products.

G. Research/Evaluation Reports: Evidence of acoustical tile ceiling's and components' compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced installer who has completed acoustical tile ceilings similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

B. Source Limitations for Ceiling Units: Obtain each acoustical ceiling tile from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the Work.

C. Source Limitations for Suspension System: Obtain each suspension system from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the Work.

1. Obtain both acoustical ceiling tiles and suspension system from the same manufacturer.

D. Fire-Test-Response Characteristics: Provide acoustical tile ceilings that comply with the following requirements:

1. Fire-response tests were performed by UL, ITS/Warnock Hersey, or another independent testing and inspecting agency that is acceptable to authorities having jurisdiction and that performs testing and follow-up services.
2. Surface-burning characteristics of acoustical tiles comply with ASTM E 1264 for Class I materials as determined by testing identical products per ASTM E 84.
3. Fire-resistance-rated assemblies, which are indicated by design designations from UL's "Fire Resistance Directory," from ITS/Warnock Hersey's "Directory of Listed Products," or from listings of another testing and inspecting agency, are identical in materials and construction to those tested per ASTM E 119.
4. Products are identified with appropriate markings of applicable testing and inspecting agency.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver acoustical tiles and suspension system components to Project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.

B. Before installing acoustical tiles, permit them to reach room temperature and a stabilized moisture content.

C. Handle acoustical tiles carefully to avoid chipping edges or damaging units in any way.

1.6 PROJECT CONDITIONS

A. Environmental Limitations: Do not install acoustical tile ceilings until spaces are enclosed and weatherproof, wet-work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.7 COORDINATION

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

1.8 EXTRA MATERIALS

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

1. Acoustical Ceiling Units: Full-size units equal to 2.0 percent of amount installed.
2. Suspension System Components: Quantity of each grid and exposed component equal to 2.0 percent of amount installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, those indicated for each designation in the Acoustical Tile Ceiling Data Sheets at the end of Part 3.

2.2 ACOUSTICAL TILES, GENERAL

A. Acoustical Tile Standard: Provide manufacturer's standard tiles of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectances, unless otherwise indicated.

1. Mounting Method for Measuring Noise Reduction Coefficient: Type E-400; plenum mounting in which face of test specimen is 15-3/4 inches (400 mm) away from test surface per ASTM E 795.

B. Acoustical Tile Colors and Patterns: Match appearance characteristics indicated for each product type.

1. Where appearance characteristics of acoustical tiles are indicated by referencing ASTM E 1264 pattern designations and not manufacturers' proprietary product designations, provide products selected by Architect from each manufacturer's full range of products that comply with requirements indicated for type, pattern, color, light reflectance, acoustical performance, edge detail, and size.

C. Antimicrobial Treatment: Provide acoustical tiles treated with manufacturer's standard antimicrobial solution consisting of a synergistic blend of substituted ammonium salts of alkylated phosphoric acids admixed with free alkylated phosphoric acid that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria.

D. Tile Characteristics: Comply with requirements indicated in the Acoustical Tile Ceiling Schedule at the end of Part 3, including those referencing ASTM E 1264 classifications.

2.3 METAL SUSPENSION SYSTEMS, GENERAL

A. Metal Suspension System Standard: Provide manufacturer's standard metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable ASTM C 635 requirements.

B. Metal Suspension System Characteristics: Comply with requirements indicated in the Acoustical Panel Ceiling Schedule at the end of Part 3.

C. Finishes and Colors, General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Provide manufacturer's standard factory-applied finish for type of system indicated.

1. High-Humidity Finish: Comply with ASTM C 635 requirements for "Coating Classification for Severe Environment Performance" where high-humidity finishes are indicated.

D. Attachment Devices: Size for five times design load indicated in ASTM C 635, Table 1, Direct Hung, unless otherwise indicated.

1. Cast-in-Place and Postinstalled Anchors in Concrete: Anchors of type and material indicated below, with holes or loops for attaching hangers of type indicated and with capability to sustain, without failure, a load equal to five times that imposed by ceiling construction, as determined by testing per ASTM E 488, conducted by a qualified testing and inspecting agency.

    a. Type: Cast-in-place anchors.
    b. Type: Postinstalled expansion anchors.
    c. Type: Chemical anchors.
    d. Corrosion Protection: Carbon-steel components zinc plated to comply with ASTM B 633, Class Fe/Zn 5 (0.005 mm) for Class SC service condition (mild).
    e. Corrosion Protection: Stainless-steel components complying with ASTM F 593 and ASTM F 594, Group 1 alloy 304 or 316 for bolts; alloy 304 or 316 for anchor.

2. Postinstalled Powder-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hangers of type indicated, and with capability to sustain, without failure, a load equal to 10 times that imposed by ceiling construction, as determined by testing per ASTM E 1190, conducted by a qualified testing and inspecting agency.

E. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:

1. Zinc-Coated Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
2. Size: Select wire diameter so its stress at three times hanger design load (ASTM C 635, Table 1, Direct Hung) will be less than yield stress of wire, but provide not less than 0.106-inch- (2.69-mm-) diameter wire.

F. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint.

G. Flat Hangers: Mild steel, zinc coated or protected with rust-inhibitive paint.

H. Angle Hangers: Angles with legs not less than 7/8 inch (22 mm) wide; formed with 0.04-inch- (1-mm-) thick, galvanized steel sheet complying with ASTM A 653/A 653M, G90 (Z275) coating designation; with bolted connections and 5/16-inch- (8-mm-) diameter bolts.

I. Sheet-Metal Edge Moldings and Trim: Type and profile indicated or, if not indicated,

manufacturer's standard moldings for edges and penetrations that fit acoustical tile edge details and suspension systems indicated; formed from sheet metal of same material and finish as that used for exposed flanges of suspension system runners.

1. For circular penetrations of ceiling, provide edge moldings fabricated to diameter required to fit penetration exactly.

J. Extruded-Aluminum Edge Moldings and Trim: Where indicated, provide manufacturer's extruded-aluminum edge moldings and trim of profile indicated or referenced by manufacturer's product designations, including splice plates, corner pieces, and attachment and other clips, complying with the following requirements:

1. Baked-Enamel Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Comply with paint manufacturer's written instructions for applying and baking and for minimum dry film thickness.

   a. Organic Coating: Manufacturer's standard thermosetting coating system with a minimum dry film thickness of 0.8 to 1.2 mils (0.02 to 0.03 mm).
   b. Color: As selected by Architect from manufacturer's standard colors.
   c. Color: Match color indicated by referencing manufacturers' standard color designations.
   d. Color: Match color of finish on flanges of suspension system surfaces.
   e. Color: Match Architect's sample.

2. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
3. Manufacturer: Subject to compliance with requirements, provide products by one of the following:

   a. Armstrong World Industries, Inc.
   b. Celotex Corporation (The); Building Products Division; Architectural Ceilings Marketing Dept.
   c. Chicago Metallic Corporation.
   d. Fry Reglet Corporation.
   e. Gordon, Inc.
   f. MM Systems, Inc.
   g. USG Interiors, Inc.

2.4 ACOUSTICAL SEALANT

A. Acoustical Sealant for Exposed and Concealed Joints: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834 and the following requirements:

1. Product is effective in reducing airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.

B. Acoustical Sealant for Concealed Joints: Manufacturer's standard nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic-rubber sealant recommended for sealing interior concealed joints to reduce airborne sound transmission.

C. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

1. Acoustical Sealant for Exposed and Concealed Joints:

    a. PL Acoustical Sealant; ChemRex, Inc., Contech Brands.
    b. AC-20 FTR Acoustical and Insulation Sealant; Pecora Corp.
    c. SHEETROCK Acoustical Sealant; United States Gypsum Co.

2. Acoustical Sealant for Concealed Joints:

    a. BA-98; Pecora Corp.
    b. Tremco Acoustical Sealant; Tremco, Inc.

2.5 MISCELLANEOUS MATERIALS

A. Tile Adhesive: Type as recommended by tile manufacturer, bearing UL label for Class 0-25 flame spread.

B. Staples: 5/16-inch- (8-mm-) long, divergent-point staples.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and structural framing to which acoustical tile ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage, and other conditions affecting performance of acoustical tile ceilings.

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

3.2 PREPARATION

A. Coordination: Furnish layouts for preset inserts, clips, and other ceiling anchors whose installation is specified in other Sections.

    1. Furnish concrete inserts and similar devices to other trades for installation well in advance of time needed for coordinating other work.

B. Testing Substrates: Before installing adhesively applied tiles on wet-placed substrates such as cast-in-place concrete or plaster, test and verify that moisture level is below tile manufacturer's recommended limits.

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

3.3 INSTALLATION

A. General: Install acoustical tile ceilings to comply with publications referenced below per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."

1. Standard for Ceiling Suspension System Installations: Comply with ASTM C 636.
2. Standard for Ceiling Suspension Systems Requiring Seismic Restraint: Comply with ASTM E 580.
3. CISCA's Recommendations for Acoustical Ceilings: Comply with CISCA's "Recommendations for Direct-Hung Acoustical Tile and Lay-in Panel Ceilings--Seismic Zones 0-2."
4. CISCA's Guidelines for Systems Requiring Seismic Restraint: Comply with CISCA's "Guidelines for Seismic Restraint of Direct-Hung Suspended Ceiling Assemblies--Seismic Zones 3 & 4."
5. U.B.C.'s "Metal Suspension Systems for Acoustical Tile and for Lay-in Panel Ceilings": U.B.C. Standard 25-2.
6. CBC 2007, CBC 2010 Chapter 16 and 16A, DSA IR 25-2.10.

B. Suspend ceiling hangers from building's structural members and as follows:

1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
3. Splay hangers only where required and, if permitted with fire-resistance-rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
4. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
5. Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure; that are appropriate for substrate; and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
6. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both structure to which hangers are attached and type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
7. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, powder-actuated fasteners, or drilled-in anchors that extend through forms into concrete.
8. Do not attach hangers to steel deck tabs.
9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
10. Space hangers not more than 48 inches (1200 mm) o.c. along each member supported directly from hangers, unless otherwise indicated; and provide hangers not more than 8 inches (200 mm) from ends of each member.

C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.

D. Install edge moldings and trim of type indicated at perimeter of acoustical tile ceiling area and where necessary to conceal edges of acoustical units.

1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
2. Screw attach moldings to substrate at intervals not more than 16 inches (400 mm) o.c. and not more than 3 inches (75 mm) from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet (3 mm in 3.6 m). Miter corners accurately and connect securely.
3. Do not use exposed fasteners, including pop rivets, on moldings and trim.

E. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

F. Arrange directionally patterned acoustical tiles as follows:
1. As indicated on reflected ceiling plans.
2. Install tiles with pattern running in one direction parallel to long axis of space.
3. Install tiles with pattern running in one direction parallel to short axis of space.
4. Install tiles in a basket-weave pattern.
5. Match existing pattern.

G. Install acoustical tiles in coordination with suspension system and exposed moldings and trim. Place splines or suspension system flanges into kerfed edges so tile-to-tile joints are closed by double lap of material.

1. Fit adjoining tile to form flush, tight joints. Scribe and cut tile for accurate fit at borders and around penetrations through tile.
2. Hold tile field in compression by inserting leaf-type, spring-steel spacers between tile and moldings, spaced 12 inches (305 mm) o.c.
3. Fabricate access units for special suspension system access members and tile units modified as required to allow for removal of access units.
4. Protect lighting fixtures and air ducts to comply with requirements indicated for fire-resistance-rated assembly.

H. Adhesive Installation: Install acoustical tile by cementing to substrate, using amount of adhesive and procedure recommended by tile manufacturer and as follows:

1. Remove loose dust from backs of tiles by brushing and then priming them with a thin coat of adhesive.
2. Install splines in joints between tiles; maintain level of bottom surface of tiles to a tolerance of 1/8 inch in 12 feet (3 mm in 3.6 m) and not exceeding 1/4 inch (6.35 mm) cumulatively.
3. Maintain tight butt joints, aligned in both directions and coordinated with ceiling fixtures.

I. Stapled Installation: Fasten acoustical tile to substrate using a minimum of two staples per tile that are installed in flanges of tile and as follows:

1. Form double-lapped joint between tiles by securely pressing tile tongues into corresponding tile grooves.
2. Maintain level of bottom surface of tiles to a tolerance of 1/8 inch in 12 feet (3 mm in 3.6 m) and not exceeding 1/4 inch (6.35 mm) cumulatively. Shim tile or correct substrate as required to maintain tolerance.
3. Maintain tight butt joints, aligned in both directions and coordinated with ceiling fixtures.

3.4 CLEANING

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

ACOUSTICAL TILE CEILING DATA SHEET

Water-Felted, Mineral-Base Acoustical Tile Ceiling:

Where this designation is indicated, provide acoustical panels complying with the following:

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:

Armstrong World Industries, Inc., "Cortega"
Celotex Corporation (The).
USG Interiors, Inc.

Classification: Panels fitting ASTM E 1264 for Type III, mineral base with painted finish; Form 2, water felted.

Pattern: Panels fitting ASTM E 1264 pattern designation (CD) as specified by product designation--(match existing).

Color: White, unless noted otherwise on Drawings.

Light Reflectance Coefficient: Not less than LR 0.80.

Noise Reduction Coefficient: NRC 0.55.

Ceiling Attenuation Class: Not less than CAC 35.

Edge Detail: Match existing.

Thickness: 5/8".

Size: See Drawings for sizes.

END OF SECTION 095123

SECTION 099000 - PAINTING

05/19/21

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 0 & 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes, but is not limited to, surface preparation and field painting of the following:

1. Exposed interior items and surfaces.
2. Surface preparation, priming, and finish coats specified in this Section are in addition to shop priming and surface treatment specified in other Sections.

B. Paint exposed surfaces, except where the paint schedules indicate that a surface or material is not to be painted or is to remain natural. If the paint schedules do not specifically mention an item or a surface, paint the item or surface the same as similar adjacent materials or surfaces whether or not schedules indicate colors. If the schedules do not indicate color or finish, the Architect will select from standard colors and finishes available.

C. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.

1. Prefinished items include the following factory-finished components:

a. Acoustical wall panels.
b. Finished mechanical and electrical equipment.
c. Light fixtures.
d. Acoustical ceiling panels.
e. Wall covering/VTS board.
f. Fire Sprinkler sprinklers

2. Concealed surfaces include walls or ceilings in the following generally inaccessible spaces:

a. Foundation spaces.
b. Furred areas.
c. Ceiling plenums.
d. Utility tunnels.
e. Pipe spaces.
f. Duct shafts.
g. Elevator shafts.

3. Finished metal surfaces include the following:

a. Anodized aluminum.
b. Stainless steel.
c. Chromium plate.
d. Copper.
e. Bronze and brass.

4. Operating parts include moving parts of operating equipment and the following:

    a. Valve and damper operators.
    b. Linkages.
    c. Sensing devices.
    d. Motor and fan shafts.

5. Labels: Do not paint over Underwriters Laboratories (UL), Factory Mutual (FM), or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.

6. Concealed surfaces to be painted:

    a. Back prime wood.
    b. Back prime wood cabinets.

D. Related Sections include the following:

1. Division 8 Section "Standard Steel Doors and Frames" for shop priming steel doors and frames.
2. Division 9 Section "Gypsum Board Assemblies" for surface preparation for gypsum board.

1.3 DEFINITIONS

A. General: Standard coating terms defined in ASTM D 16 apply to this Section.

1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85-degree meter.
2. Eggshell refers to low-sheen finish with a gloss range between 5 and 20 when measured at a 60-degree meter.
3. Satin refers to low-sheen finish with a gloss range between 15 and 35 when measured at a 60-degree meter.
4. Semigloss refers to medium-sheen finish with a gloss range between 30 and 65 when measured at a 60-degree meter.
5. Full gloss refers to high-sheen finish with a gloss range more than 65 when measured at a 60-degree meter.

1.4 SUBMITTALS

A. Product Data: For each paint system specified. Include block fillers and primers.

1. Material List: Provide an inclusive list of required coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
2. Certification by the manufacturer that products supplied comply with federal, state and local regulations controlling use of volatile organic compounds (VOCs).

B. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors available for each type of finish-coat material indicated.

C. Samples for Verification: Of each color and material to be applied, with texture to simulate actual conditions, on representative Samples of the actual substrate.

1. Provide stepped Samples, defining each separate coat, including block fillers and primers. Use representative colors when preparing Samples for review. Resubmit until required sheen, color, and texture are achieved.
2. Provide a list of materials and applications for each coat of each sample. Label each sample for location and application.
3. Submit Samples on the following substrates for the Architect's review of color and texture only:

    a. Concrete: Provide two 4-inch- (100-mm-) square samples for each color and finish.
    b. Cement Plaster: Provide two 4-inch- (100-mm-) square samples for each color and finish.
    c. Concrete Masonry: Provide two 4-by-8-inch (100-by-200-mm) samples of masonry, with mortar joint in the center, for each finish and color.
    d. Painted Wood: Provide two 12-inch- (300-mm-) square samples of each color and material on hardboard.
    e. Stained or Natural Wood: Provide two 4-by-8-inch (100-by-200-mm) samples of natural- or stained-wood finish on actual wood surfaces.
    f. Ferrous Metal: Provide two 4-inch- (100-mm-) square samples of flat metal and two 8-inch- (200-mm-) long samples of solid metal for each color and finish.

D. Project Closeout Requirement:

1. Extra materials.

1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain block fillers, primers, and undercoat materials for each coating system from the same manufacturer as the finish coats.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the Project Site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:

1. Product name or title of material.
2. Product description (generic classification or binder type).
3. Manufacturer's stock number and date of manufacture.
4. Contents by volume, for pigment and vehicle constituents.
5. Thinning instructions.
6. Application instructions.
7. Color name and number.
8. VOC content.

B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F (7 deg C). Maintain containers used in storage in a clean condition, free of foreign materials and residue.

1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.

1.7 PROJECT CONDITIONS

A. Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 and 90 deg F (10 and 32 deg C).

B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 and 95 deg F (7.2 and 35 deg C).

C. Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85 percent; or at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

1.8 EXTRA MATERIALS

A. Furnish extra paint materials from the same production run as the materials applied in the quantities described below. Package paint materials in unopened, factory-sealed containers for storage and identify with labels describing contents. Deliver extra materials to the Owner.

1. Quantity: Furnish the Owner with extra paint materials in the quantities indicated below:

a. Wall Paint: Four (4) gallons unopened of each color applied.
b. Door/Trim: Four (4) gallons unopened of each color applied.
c. Stain: Two (2) gallons unopened of each color applied.
d. Exterior: Ten (10) gallons unopened of each color applied.
e. Exterior Trim: Five (5) gallons unopened of each color applied.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products listed in the paint schedules.

B. Manufacturers Names: The following manufacturers are referred to in the paint schedules by use of shortened versions of their names, which are shown in parentheses:

1. Dunn-Edwards-(Campus Standard).

2.2 PAINT MATERIALS, GENERAL

A. Material Compatibility: Provide block fillers, primers, undercoats, and finish-coat 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.

B. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed substitutions.

C. Colors: Provide color selections made by the Architect.

1. Allow for colors as follows:

a. Each room shall have one (1) field color and one (1) accent wall color. (This does not include doors, frames and miscellaneous items.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with the Applicator present, under which painting will be performed for compliance with paint application requirements.

1. Do not begin to apply paint until unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
2. Start of painting will be construed as the Applicator's acceptance of surfaces and conditions within a particular area.

B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.

1. Notify the Architect about anticipated problems using the materials specified over substrates primed by others.

3.2 PREPARATION

A. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of the size or weight of the item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.

B. Cleaning: Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings. Remove oil and grease before cleaning.

1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.

1. Provide barrier coats over incompatible primers or remove and reprime.

2. Cementitious Materials: Prepare concrete, concrete masonry block, cement plaster, and mineral-fiber-reinforced cement panel surfaces to be painted. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.

    a. Use abrasive blast-cleaning methods if recommended by paint manufacturer.
    b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not paint surfaces where moisture content exceeds that permitted in manufacturer's written instructions.
    c. Clean concrete floors to be painted with a 5 percent solution of muriatic acid or other etching cleaner. Flush the floor with clean water to remove acid, neutralize with ammonia, rinse, allow to dry, and vacuum before painting.

3. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.

    a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
    b. Prime, stain, or seal wood to be painted immediately on delivery. Prime edges, ends, faces, undersides, and backsides of wood, including cabinets, counters, cases, and paneling.
    c. When transparent finish is required, backprime with spar varnish.
    d. Backprime paneling on interior partitions where masonry, plaster, or other wet wall construction occurs on backside.
    e. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately on delivery.

4. Ferrous Metals: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with the Steel Structures Painting Council's (SSPC) recommendations.

    a. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.
    b. Touch up bare areas and shop-applied prime coats that have been damaged. Wire-brush, clean with solvents recommended by paint manufacturer, and touch up with the same primer as the shop coat.
    c. Apply stripe coat (second coat of primer) on edges, bolts, angles, and welds.

5. Galvanized Surfaces: Clean galvanized surfaces with nonpetroleum-based solvents so surface is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.

D. Materials Preparation: Mix and prepare paint materials according to manufacturer's written instructions.

1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.

3. Use only thinners approved by paint manufacturer and only within recommended limits.

E. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of the same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

3.3 APPLICATION

A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.

1. Paint colors, surface treatments, and finishes are indicated in the schedules.
2. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
3. Provide finish coats that are compatible with primers used.
4. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, covers for finned-tube radiation, grilles, and similar components are in place. Extend coatings in these areas, as required, to maintain the system integrity and provide desired protection.
5. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before the final installation of equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
6. Paint interior surfaces of ducts with a flat, nonspecular black paint where visible through registers or grilles.
7. Paint back sides of access panels and removable or hinged covers to match exposed surfaces.
8. Finish exterior doors on tops, bottoms, and side edges the same as exterior faces.
9. Finish interior of wall and base cabinets and similar field-finished casework to match existing.
10. Sand lightly between each succeeding enamel or varnish coat.

B. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.

1. The number of coats and the film thickness required are the same regardless of application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.
2. Omit primer on metal surfaces that have been shop primed and touchup painted.
3. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance. Give special attention to ensure edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
4. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where application of another coat of paint does not cause the undercoat to lift or lose adhesion.

C. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.

1. Brushes: Use brushes best suited for the type of material applied. Use brush of appropriate size for the surface or item being painted.

2. Rollers: Use rollers of carpet, velvet back, or high-pile sheep's wool as recommended by the manufacturer for the material and texture required, except on smooth metal surfaces.
3. Spray Equipment: Use airless spray equipment with orifice size as recommended by the manufacturer for the material and texture required. Use spray equipment on smooth metal surfaces.

D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide the total dry film thickness of the entire system as recommended by the manufacturer.

E. Mechanical and Electrical Work: Painting of mechanical and electrical work is limited to items exposed in equipment rooms and in occupied spaces.

F. Mechanical items to be painted include, but are not limited to, the following:

1. Piping, pipe hangers, and supports exposed and not galvanized.
2. Heat exchangers.
3. Tanks.
4. Ductwork exposed except do not paint in mechanical rooms.
5. Access doors.
6. Grilles to match ceiling color--spray application, unless ceiling is white.
7. Motors and mechanical equipment.
8. Accessory items.

G. Electrical items to be painted include items may be prefinished, if so, match Architect’s color selected regardless of factory options, but are not limited to, the following:

1. Exposed conduit and fittings that are not galvanized or plastic.
2. Switchgear - spray application – interior/ exterior
3. Panel boards - spray application – interior/exterior
4. Transformers - exterior

H. Block Fillers: Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.

I. Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn through or other defects due to insufficient sealing.

J. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.

K. Transparent (Clear) Finishes: Use multiple coats to produce a glass-smooth surface film of even luster. Provide a finish free of laps, runs, cloudiness, color irregularity, brush marks, orange peel, nail holes, or other surface imperfections. Provide stain coat on all transparent finishes.

1. Provide satin finish for final coats, unless noted otherwise.

L. Stipple Enamel Finish: Roll and redistribute paint to an even and fine texture. Leave no evidence of rolling, such as laps, irregularity in texture, skid marks, or other surface imperfections.

M. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or

repaint work not complying with requirements.

3.4 CLEANING

A. Cleanup: At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from the site.

1. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping. Be careful not to scratch or damage adjacent finished surfaces.

3.5 PROTECTION

A. Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.

B. Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.

1. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

3.6 SHEEN SCHEDULE - OPAQUE FINISH

ITEM	SHEEN
Interior:	
Walls, Type A finish	Eggshell
Ceiling, Type A finish	Eggshell
Walls, Type B finish	Semi-gloss
Ceiling, Type B finish	Semi-gloss
HM Doors and HM Frames	Semi-gloss
Window Frames, wood	Semi-gloss
Wood Trim, base and standing rails	Semi-gloss
Wood Paneling/Plywood	Eggshell
Vinyl Wall Covering	Eggshell

A. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:

1. Flat Acrylic Finish: 2 finish coats over a primer.

a. Primer: Latex-based, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

1) D-E: VNPR00 VINYLASTIC Premium Interior Wall sealer.

b. First and Second Coats: Flat, acrylic-latex-based, interior paint applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.5 mils (0.064 mm).

1) D-E: EVER 10 EVERST Low odor/Zero VOC Interior Flat paint.

2. Eggshell, Acrylic-Enamel Finish: 2 finish coats over a primer.

   a. Primer: Latex-based, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

      1) D-E: VNPR00 VINYLASTIC Premium Interior Wall sealer.

   b. First and Second Coats: Eggshell, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

      1) D-E: EVER 30 EVERST Low odor/Zero VOC Interior Eggshell paint.

3. Semi-gloss, Acrylic-Enamel Finish: 2 finish coats over a primer.
   a. Primer: Latex-based, interior primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils (0.031 mm).

      1) D-E: VNPR00 VINYLASTIC Premium Interior Wall sealer.

   b. First and Second Coats: Semi-gloss, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.8 mils (0.071 mm).

      1) D-E: EVER 50 EVERST Low odor/Zero VOC Interior Semi-Glass paint.

END OF SECTION 099000

BOOKSTORE REMODEL

Cerro Coso College
Kern Community College District

SHEET INDEX (7 SHEETS)

Architectural Sheets (4 SHEETS)

17-01-20M

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS (TITLE DOCUMENTS) AND ALL OTHER LOCAL CODES AND ORDINANCES OF THE GOVERNING AUTHORITY HAVING JURISDICTION AND AS IDENTIFIED UNDER APPLICABLE CODES ON THIS SHEET. IT IS THE INTENT OF THESE DOCUMENTS TO COMPLY HERETO.
2. ALL DRAWINGS SHALL BE USED IN CONCERT WITH EACH OTHER. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCY BETWEEN THE DOCUMENTS, THE CONTRACTOR SHALL REQUEST IN WRITING A CLARIFICATION FROM THE ARCHITECT. REFER TO THE ARCHITECTURAL AND ENGINEERING DRAWINGS FOR PLACEMENT, ORIENTATION AND COORDINATION OF WORK. INFORMATION SHOWN IN LARGER SCALE IS INTENDED TO SUPPLEMENT INFORMATION OF SMALLER, PRECEDING REFERENCE DRAWINGS. LARGER SCALE DRAWINGS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS.
3. NOTATION MARKED 'TYPICAL' (TYP) SHALL BE CONSISTENT THROUGHOUT ALL SUCH REFERENCE NOMENCLATURE, SYMBOLS AND DRAWING INDICATIONS OF LIKE OR SIMILAR KIND.
4. DO NOT SCALE DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY CONSTRUCTION CONDITIONS AND DIMENSIONS PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY ASSOCIATED WORK. IF DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL REQUEST IN WRITING A CLARIFICATION FROM THE ARCHITECT PRIOR TO COMMENCEMENT OF ANY ASSOCIATED WORK.
5. CONTRACTOR SHALL VERIFY, AT THE SITE, ALL EXISTING CONDITIONS PRIOR TO SUBMITTAL OF BIDS. SITE VISITS DURING BIDDING SHALL BE COORDINATED WITH THE OWNER IN ACCORDANCE WITH THE PROVISIONS OF THE SPECIFICATIONS.
6. CONTRACTOR SHALL PROTECT ALL EXISTING WORK. ANY DAMAGED WORK SHALL BE REPLACED WITH THE SAME MATERIALS, INCLUDING MATCHING THE EXISTING COLORS AND TEXTURES.
7. EXISTING WORK IS SHOWN FOR REFERENCE ONLY. THE OWNER AND/OR ARCHITECT DO NOT GUARANTEE EXISTING CONDITIONS AS SHOWN ON THESE DOCUMENTS.
8. CONTRACTOR(S) SHALL BE RESPONSIBLE FOR THEIR OWN CLEANUP AS WORK PROGRESSES.
9. MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS THAT ARE DISCOVERED DURING THE PROGRESS OF THE WORK SHALL BE REPORTED TO THE OWNER IN WRITING. WORK IN THAT PARTICULAR AREA SHALL BE SUSPENDED UNTIL THE OWNER TESTS THE SUSPECT MATERIAL AND IT IS FOUND TO BE SAFE, OR THE MATERIAL HAS BEEN PROPERLY ABATED.
10. ALL WORK IS NEW UNLESS OTHERWISE NOTED.
11. IN THE EVENT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE CONSTRUCTION DOCUMENTS, THEN THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN.
12. STORAGE OF CONSTRUCTION MATERIAL AND EFFECT OF WORK ON EXISTING OCCUPIED AREAS SHALL BE APPROVED BY THE LOCAL FIRE AUTHORITY.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL WORK PROVIDED BY OTHERS UNDER SEPARATE CONTRACT(S).
14. KEYNOTES USED ON THE ARCHITECTURAL DRAWINGS ARE FOR ASSEMBLIES, MATERIAL REFERENCES AND NOTES. REFER TO THE KEYNOTES LIST ON THE RESPECTIVE DRAWING FOR THE INFORMATION TO EACH KEYNOTE.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH CFC CHAPTER 33, FIRE SAFETY DURING CONSTRUCTION.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY AND SECURITY MEASURES AT ALL AREAS OF WORK. FENCING AND ANY OTHER SECURITY/ SAFETY MEASURES SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH OTHER CONCURRENT CONSTRUCTION PROJECTS ON CAMPUS UNDER SEPARATE CONTRACT FOR SCHEDULING AND COORDINATION.

17-01-19

APPLICABLE CODES

Title 19, CCR

CCR	PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

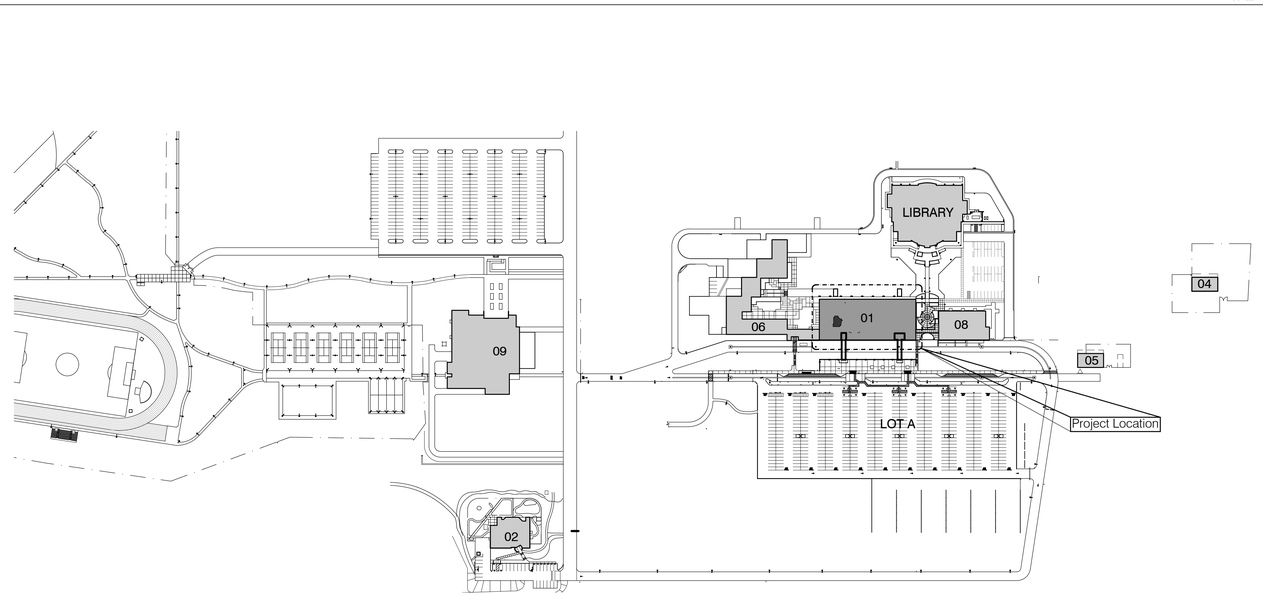
Title 24, CCR

PART 1	2022 CALIFORNIA ADMINISTRATIVE CODE
PART 2	2022 CALIFORNIA BUILDING CODE VOLUME 1 AND 2 (2021 IBC, WITH 2022 CALIFORNIA AMENDMENTS)
PART 3	2022 CALIFORNIA ELECTRICAL CODE (2020 EDITION NATIONAL ELECTRICAL CODE WITH 2022 CALIFORNIA AMENDMENTS)
PART 4	2022 CALIFORNIA MECHANICAL CODE (2021 EDITION IAPMO UNIFORM MECHANICAL CODE)
PART 5	2022 CALIFORNIA PLUMBING CODE (2021 EDITION IAPMO UNIFORM PLUMBING CODE)
PART 6	2022 CALIFORNIA ENERGY CODE
PART 8	2022 CALIFORNIA HISTORICAL BUILDING CODE
PART 9	2022 CALIFORNIA FIRE CODE (2021 EDITION, INTERNATIONAL FIRE CODE)
PART 9	2013 CALIFORNIA FIRE CODE CHAPTER 33 - FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION
PART 10	2022 EXISTING BUILDING CODE (2021 INTERNATIONAL EXISTING BUILDING CODE)
PART 11	2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
PART 12	2022 CALIFORNIA REFERENCED STANDARDS CODE
NFPA 13	2022 EDITION, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS 2022 OF CALIFORNIA
NFPA 14	2019 EDITION, STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS
NFPA 17	2021 EDITION, STANDARD DRY CHEMICAL EXTINGUISHING SYSTEMS
NFPA 17A	2021 EDITION, STANDARD WET CHEMICAL EXTINGUISHING SYSTEMS
NFPA 20	2019 EDITION, STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION
NFPA 22	2018 EDITION, STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION
NFPA 24	2019 EDITION, STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES
NFPA 25	2013 EDITION, STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS (CA AMENDED)
NFPA 72	2022 EDITION, NATIONAL FIRE ALARM AND SIGNALING CODE 2022 OF CALIFORNIA
NFPA 80	2019 EDITION, STANDARD FOR FIRE DOOR AND OPENING PROTECTIVES

17-01-12

OVERALL SITE PLAN

SCALE: 1" = 300'-0"



SCOPE OF WORK

THE FOLLOWING IS A BRIEF DESCRIPTION OF THE SCOPE OF WORK. CONTRACTOR SHALL DETERMINE/VERIFY THE ENTIRE SCOPE AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS PRIOR TO SUBMITTING BIDS:

1. INTERIOR MODIFICATIONS TO CONVERT (4) OFFICE SPACES TO A CAMPUS BOOKSTORE RETAIL SPACE.

17-01-20M

ABBREVIATIONS (PARTIAL LIST)

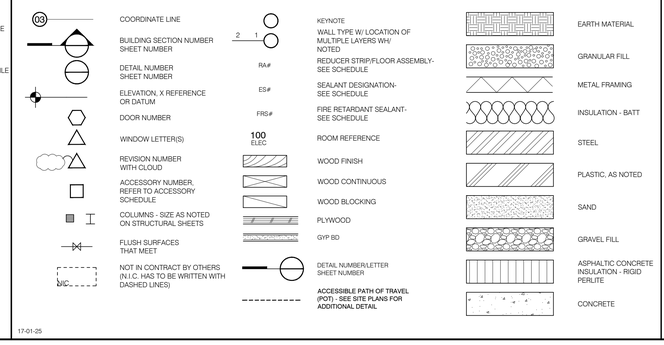
AB	ANCHOR BOLT
AC	ASPHALT CONCRETE, AIR CONDITIONING
ACC	ACCESS CONTROL
ACOUS	ACOUSTICAL
ADDIT	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISH FLOOR
AGG	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
APPROX	APPROXIMATE
ARCH	ARCHITECT (URAL)
AS	ADJUSTABLE SHELF(S)
B	BLANK CABINET PANEL
BD	BOARD
BLK	BLOCK
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BUR	BUILT UP ROOF(ING)
CAB	CABINET
CEM	CEMENT
CI	CAST IRON
CJ	CONTROL JOINT
CJF	CONTROL/CONSTRUCTION JOINT FILLED
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR(ANCE)/COLOR
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
CO	CLEAN OUT
COB	CITY OF BAKERSFIELD
COC	CITY OF COALINGA
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS OR CONTINUE
COP	CONTROL OPERATIONS PANEL
CPT	CARPET(ED)
CR	CARD READER
CSVB	COVED SHEET VINYL BASE
CTSK	COUNTER SINK
CU	CONDENSER UNIT
d	PENNY (NAILS)
D	DRAWER
DBL	DOUBLE
DEMO	DEMOLITION
DET	DETAIL
DF	DRINKING FOUNTAIN
DG	DECOMPOSED GRANITE
DIA	DIAMETER
DIM	DIMENSION
DIS	DISABLED
DL	DEAD LOAD
DN	DOWN
DS	DOWN SPOUT
DTR	DUCT THRU ROOF
DWG(S)	DRAWING(S)
EA	EACH
EDF	ELECTRIC DRINKING FOUNTAIN
EF	EXHAUST FAN
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
ELEC	ELECTRIC(AL)
ELEV	ELEVATION
EPC	ELECTROSTATIC POWDER COATING
EPS	ELECTROSTATIC PAINTING SYSTEM
EQ	EQUAL
EQUIP	EQUIPMENT
ES	ELASTOMERIC SEALANT
EX/EXIST	EXISTING
EXH	EXHAUST
EXT	EXTERIOR
EW	EACH WAY
F, (F)	FUTURE
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDN	FOUNDATION
FEX	FIRE EXTINGUISHER
FG	FINISH GRADE
FIN	FINISH(ED)
FLR	FLOOR(ING)
FLOUR	FLOURESCENT
FOC	FACE OF CONCRETE
FOIC	FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FRS	FIRE RETARDANT SEALANT
FS	FIXED SHELF
FTG	FOOTING
FURR	FURRED (ING)
FV	FIELD VERIFY
GA	GAGE, GAUGE
GI	GALVINIZED IRON
GL	GLASS, GLAZING
GS	GLAZING SIDE
GWT	GLAZED WALL TILE
GYP	GYPSUM
HB	HOSE BIBB
HC	HOLLOW CORE
HD	HEAVY DUTY
HDR	HEADER
HDBD	HARDBOARD
HDWD	HARDWOOD
HDWR	HARDWARE
HFEX	HALON FIRE EXTINGUISHER
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HT	HEIGHT
HVAC	HEATING/VENTILATING/ AIR CONDITIONING
ID	INSIDE DIAMETER
INFO	INFORMATION
INSUL	INSULATE (D), (ION)
INT	INTERIOR
ISA	INTERNATIONAL SYMBOL OF ACCESSIBILITY
JST	JOIST
JT(S)	JOINTS
K	KICKER
KS	KNEE SPACE
LAV	LAVATORY
LL	LIVE LOAD
LT	LIGHT
MAX	MAXIMUM
MB	MACHINE BOLT
MBL	MINI BLIND
MC	MEDICINE CABINET
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANIC(AL)
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MET	METAL
MFR	MANUFACTURE(R)
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MRT	MOLDED RUBBER FLOOR TILE
MT	METAL THRESHOLD
MTD	MOUNTED
MTL	MATERIAL
NAT	NATURAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OBS	OBSCURE
OC	ON CENTER(S)
OD	OUTSIDE DIAMETER
OFRD	OVERFLOW ROOF DRAIN
OH	OVERHEAD
OPNG	OPENING
PA	PLANTING AREA
PFR	POLYURETHANE FOAM ROOFING
PJ	POUR JOINT
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS LAM	PLASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMBING
PRC	POLYURETHANE ROOF COATING
P.O.T.	PATH OF TRAVEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PVMT	PAVEMENT
PWD	PLYWOOD
RA	RETURN AIR, RUBBER ACCESSORY
RASF	RUBBERIZED ASPHALT SHEET
RASWD	RUBBER ASPHALT SHEET WATER PROOFING
RAD	RADIUS
RD	ROOF DRAIN
REF	REFRIGERATOR
REFL	REFLECTED
REG	REGISTER
REQ(S)	REQUIREMENT(S)
REQD	REQUIRED
REV	REVISION(S), REVISED
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RR	ROOF RAFTER
RS	REDUCER STRIP
RSTA	RUBBER STAIR TREAD ACCESSORY
RWB	RUBBER WALL BASE
SC	SOLID CORE
SCHED	SCHEDULE
SD	STORM DRAIN
SF	SQUARE FOOT
SFRM	SPRAYED FIRE-RESISTIVE MATERIAL
SG	SAFETY GLAZING (FULLY TEMPERED)
SHTG	SHEATHING
SHT(S)	SHEET(S)
SIM	SIMILAR
SJ	SEALED JOINT
SJF	SAWN JOINT FILLED
SP	SOLID POLYMER
SPEC (S)	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL
STD(S)	STANDARD(S)
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
T	TEMPERED
T/M/B	TOP/MIDDLE/BOTTOM
TC	TOP OF CONCRETE
TER	TERRAZZO
TH	THICK(NESS)
TOC	TOP OF CONCRETE
TOS	TOP OF SEAT
TOW	TOP OF WALL
TP	TOP OF PAVING
TV	TELEVISION
TW	TOP OF WALK
TWP	TRANSLUCENT WALL PANEL
TYP	TYPICAL
UCMT	UNGLAZED CERAMIC WALL TILE
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
URI	URINAL
VCT	VINYL COMPOSITION FLOOR TILE
VCTB	VINYL COVERED TACKBOARD
VER	VERIFY
VERT	VERTICAL
VTS	VINYL TACK SURFACE
VWC	VINYL WALL COVERING
W.	WEST
W/	WITH
WC	WATER CLOSET
WD	WOOD
WH/	WHERE
WI	WROUGHT IRON
W/O	WITHOUT
WP	WATERPROOFING
WT	WEIGHT
WWF	WELDED WIRE FABRIC
XFMR	TRANSFORMER

17-01-11M

CAMPUS BUILDING IDENTIFICATION

No.	Building	DSA No.
01	MAIN BUILDING	03-35042
05	MAINTENANCE	-
06	OCCUPATIONAL LABS	03-43870
08	CLASSROOM BUILDING	03-55173
09	GYMNASIUM	03-51511
-	LIBRARY	03-104556

SYMBOLS (PARTIAL LIST)

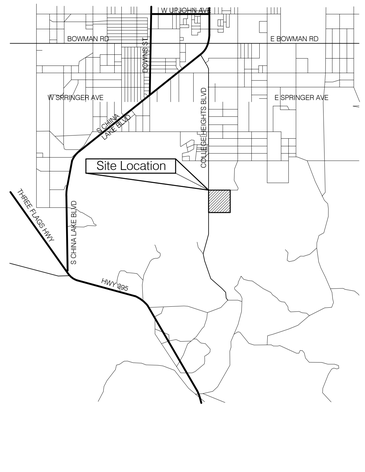


17-01-25

VICINITY MAP

SCALE: NTS

ADDRESS :
3000 COLLEGE HEIGHTS BLVD
RIDGECREST, CA 93555
KERN COMMUNITY COLLEGE DISTRICT



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www.aparchitects.net

BOOKSTORE REMODEL

Cerro Coso Community College
3000 College Heights Blvd Ridgecrest CA 93555
Kern Community College District

ARCHITECT

LICENSED ARCHITECT
JAMES PATRICK FOGARTY
No. C-19670
REN
11-30-23
STATE OF CALIFORNIA

JAMES PATRICK FOGARTY, AIA
ARCHITECT C-19670

CONSULTANT

AGENCY APPROVAL

PROJECT INFO

Project No	569-0003
Date	05.05.23

REVISIONS

No	Date	Item

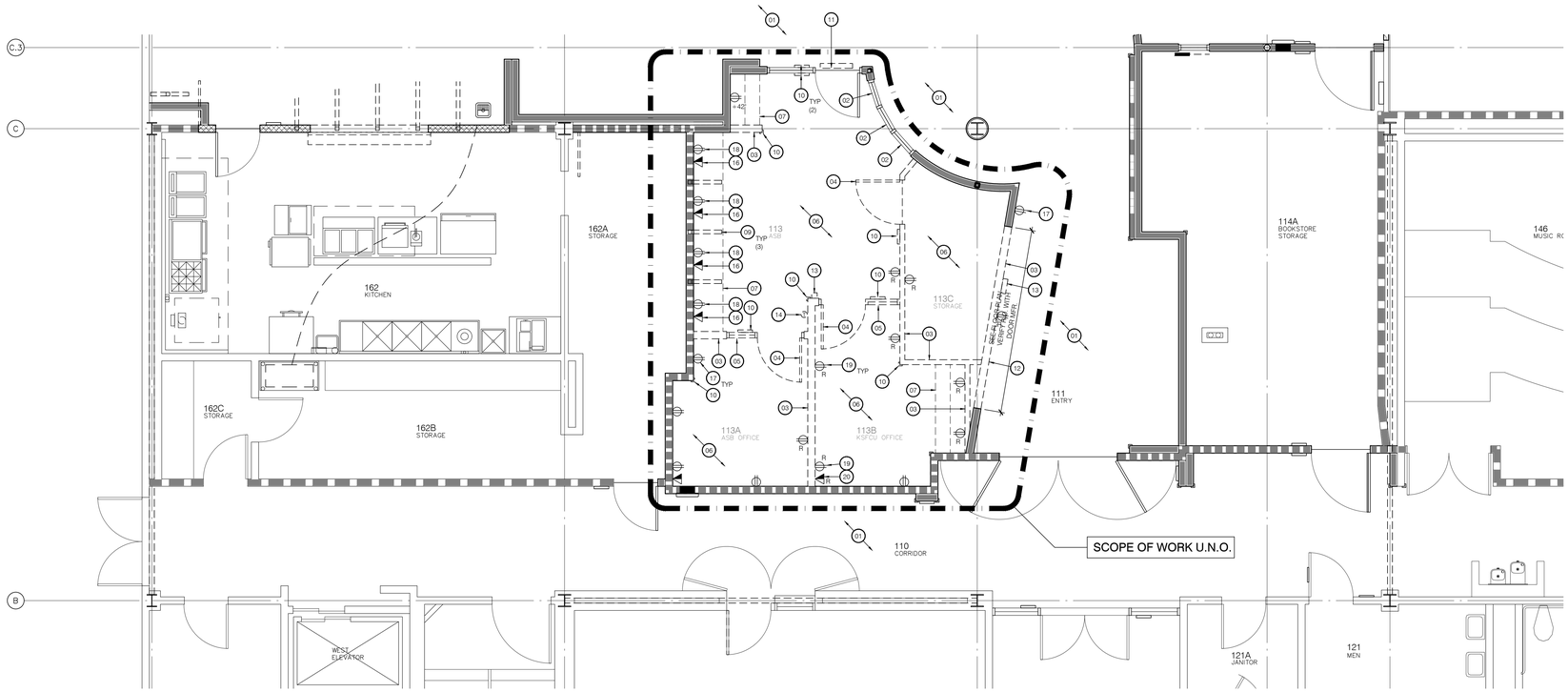
09.18.23 10:42

TITLE SHEET

A0.00

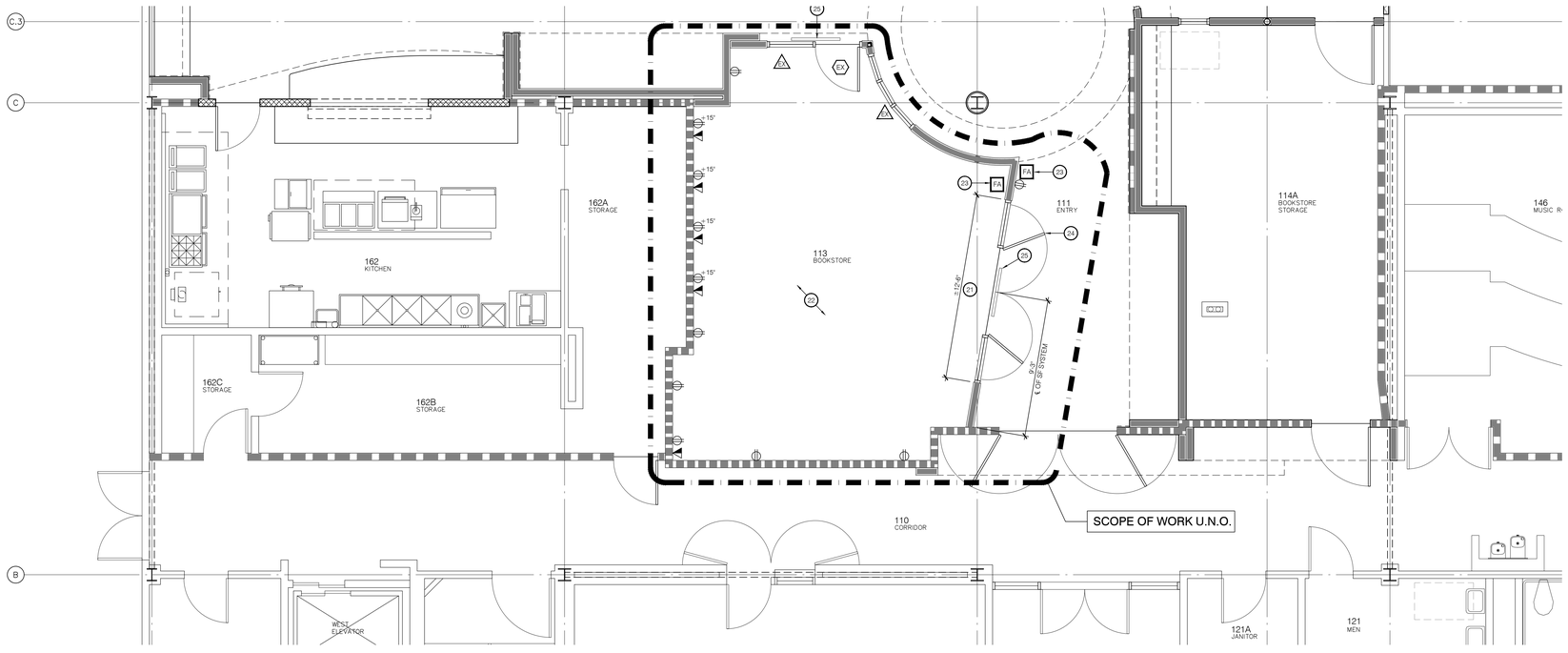
ABATEMENT NOTE:

EXISTING SPRAY APPLIED FIREPROOFING WITHIN THE PROJECT BOUNDARY AND EXISTING PRIMER PAINT ON STEEL MEMBERS IN AREAS THAT WILL BE DISTURBED BY NEW CONSTRUCTION (WELDED AND/OR BOLTED CONNECTIONS) SHALL BE ABATED AND PREPARED FOR RE-APPLICATION OF FIREPROOFING. CONTRACTOR RESPONSIBLE FOR ABATEMENT AND RE-APPLICATION OF FIREPROOFING.



1. Demolition Floor Plan

Scale: 1/4" = 1'-0"



2. Project Floor Plan

Scale: 1/4" = 1'-0"

WALL TYPE LEGEND

Line Style	Description	Detail
W1	EXISTING RATED WALL TO REMAIN	
W2	EXISTING NON-RATED WALL TO REMAIN	
W3	EXISTING WALL TO BE REMOVED	

DEMOLITION FLOOR PLAN KEYNOTES

- 01 NO SCOPE OF WORK THIS AREA
- 02 EXISTING WINDOW TO REMAIN, TYP.
- 03 REMOVE EXISTING NON-RATED FULL HEIGHT WALL. WHERE WALL IS REMOVED PATCH EXISTING REMAINING WALL TO MATCH EXISTING ADJACENT FINISH
- 04 REMOVE EXISTING DOOR/JAMB AND ASSOCIATED HARDWARE
- 05 REMOVE EXISTING WINDOW SYSTEM
- 06 REMOVE EXISTING FLOORING AND RUBBER WALL BASE, PREP SUBSTRATE FOR NEW FLOORING
- 07 REMOVE EXISTING UPPER/LOWER CABINETS, WHERE CABINETS HAVE POWER/DATA SUPPLY REMOVE POWER TO SOURCE BELOW FINISH FLOOR, PATCH HOLE(S) IN FLOOR AND PREP SUBSTRATE FOR NEW FLOORING. SEE FINISH SCHEDULE FOR MORE INFORMATION.
- 08 NOT USED
- 09 REMOVE EXISTING COUNTER BRACE FRAMING AND POSTS IN WALL, PATCH WALL SURFACE TO MATCH EXISTING ADJACENT FINISH
- 10 REMOVE EXISTING ACCESSORY/SIGN
- 11 REMOVE EXISTING STAND-OFF METAL LETTERS BOVE DOOR, PATCH HOLES IN WALL AND PAINT WALL FROM EDGE TO EDGE OF EXISTING PAINTED SURFACE
- 12 PREP WALL FRAMING FOR NEW HEADER (05 / A8.00)
- 13 RELOCATE EXISTING FIRE ALARM DEVICE, SEE PLANS FOR NEW LOCATION
- 14 RELOCATE EXISTING THERMOSTAT, SEE PLANS FOR NEW LOCATION
- 15 EXISTING DATA OUTLET TO REMAIN, TYPICAL U.N.O.
- 16 EXISTING DATA OUTLET TO BE RELOCATED TO +15" TO BOTTOM OF BOX, PATCH WALL TO MATCH ADJACENT EXISTING FINISH
- 17 EXISTING ELECTRICAL RECEPTACLE AND WIRING TO REMAIN, TYPICAL U.N.O.
- 18 EXISTING ELECTRICAL RECEPTACLE TO BE RELOCATED TO +15" TO BOTTOM OF BOX, PATCH WALL TO MATCH ADJACENT EXISTING FINISH
- 19 TYPICAL: 'R' AT EXISTING RECEPTACLE DENOTES EXISTING TO BE REMOVED, REMOVE EXISTING OUTLET, RACEWAYS AND WIRING BACK TO SOURCE
- 20 TYPICAL: 'R' AT EXISTING TEL/DATA OUTLETS DENOTES EXISTING TO BE REMOVED, REMOVE EXISTING JACKS, OUTLET, CABLES AND CONDUIT BACK TO TBB AND MDF - VERIFY WORK REQUIRED IN FIELD

FLOOR PLAN KEYNOTES

- 21 PROVIDE 4-1/2"X2" ALUMINUM STOREFRONT SYSTEM WITH 1/4" CLEAR GLAZING DOOR/WINDOW SYSTEM IN EXISTING WALL, SEE INTERIOR ELEVATIONS/ SPECIFICATIONS FOR MORE INFORMATION (05 / A8.00)
- 22 PREPARE FLOOR FOR OWNER INSTALLED LVT FLOORING, FOLLOW MANUFACTURER GUIDELINES FOR CATALINA PRODUCTS AVALON SERIES 5MM GLUE DOWN LVT/LVP FLOORING
- 23 RELOCATE EXISTING FIRE ALARM DEVICE, FIELD VERIFY EXACT LOCATION
- 24 PROVIDE PAIR OF 3'-0"x7'-0" ALUMINUM STOREFRONT DOORS, SEE INTERIOR ELEVATIONS FOR MORE INFORMATION
- 25 METAL-LOOK ADHESIVE APPLIED LETTERS, SEE INTERIOR ELEVATIONS FOR MORE INFORMATION

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BOOKSTORE REMODEL

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CONSULTANT

AGENCY APPROVAL

PROJECT INFO

Project No	569-0003
Date	05.05.23

REVISIONS

No	Date	Item

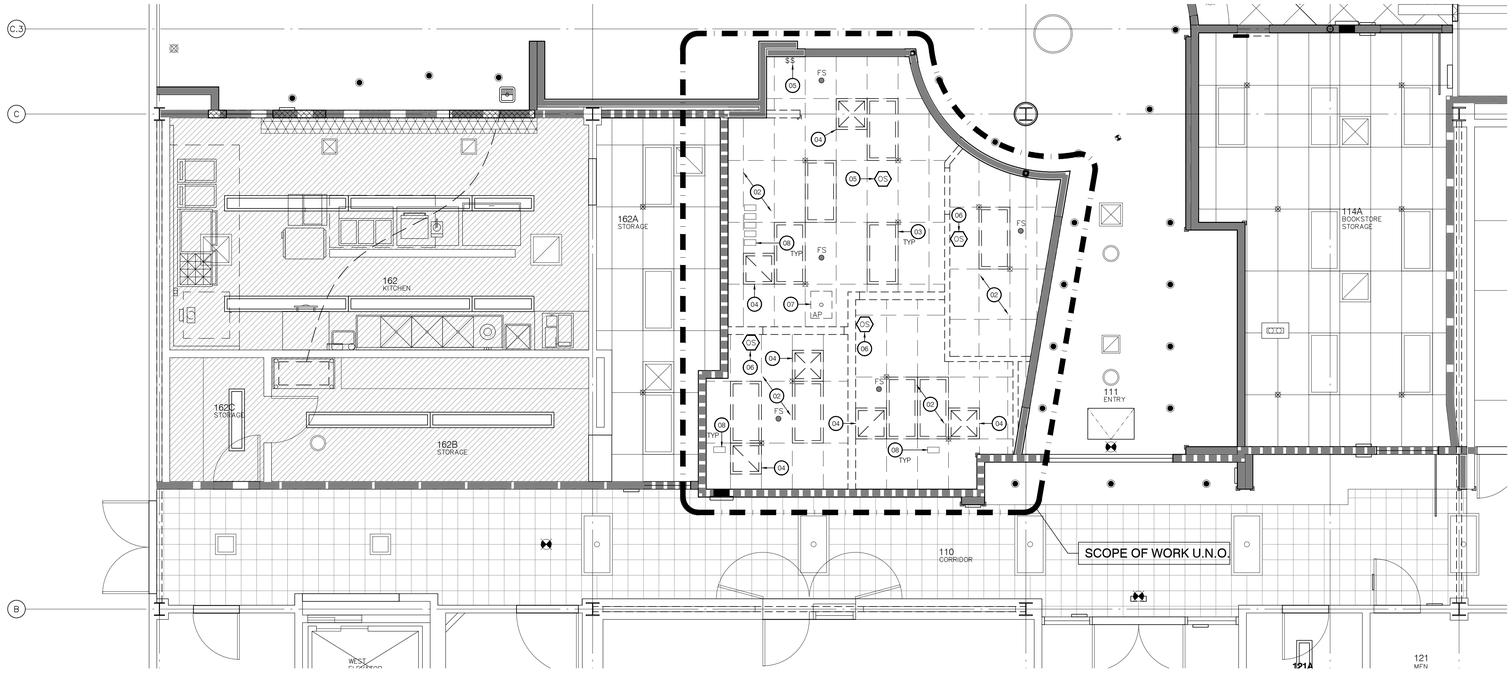
09.18.23 11:07

DEMOLITION FLOOR PLAN/ PROJECT FLOOR PLAN

A2.20

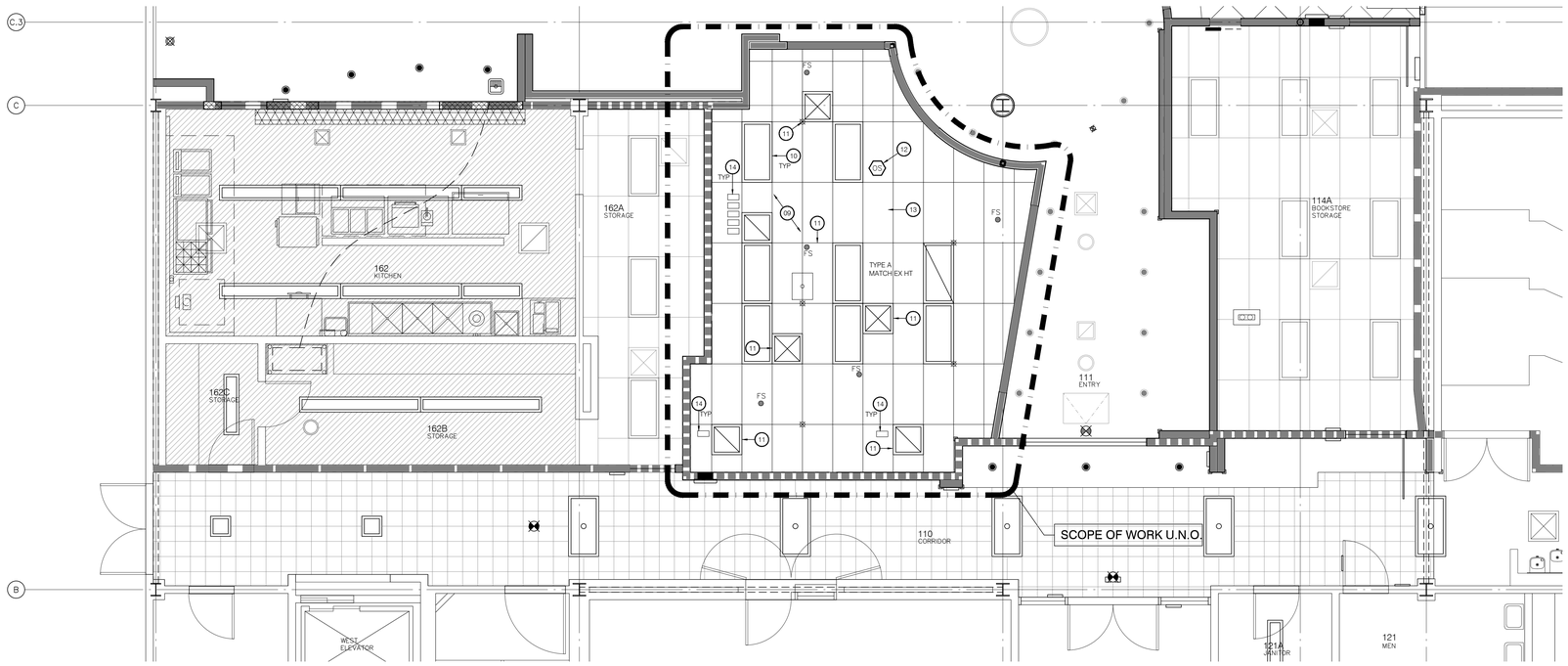
ABATEMENT NOTE:

EXISTING SPRAY APPLIED FIREPROOFING WITHIN THE PROJECT BOUNDARY AND EXISTING PRIMER PAINT ON STEEL MEMBERS IN AREAS THAT WILL BE DISTURBED BY NEW CONSTRUCTION (WELDED AND/OR BOLTED CONNECTIONS) SHALL BE ABATED AND PREPARED FOR RE-APPLICATION OF FIREPROOFING. CONTRACTOR RESPONSIBLE FOR ABATEMENT AND RE-APPLICATION OF FIREPROOFING.



1. Demolition Reflected Ceiling Plan

Scale: 1/4" = 1'-0"



2. Reflected Ceiling Plan

Scale: 1/4" = 1'-0"

CEILING DEMOLITION KEYNOTES

01 EXISTING WALL TO BE REMOVED, SEE DEMOLITION FLOOR PLAN

02 REMOVE EXISTING SUSPENDED LAY-IN ACOUSTICAL CEILING SYSTEM INCLUDING WIRES, ANCHORS, AND CONNECTORS.

03 REMOVE EXISTING RECESSED FLUORESCENT LIGHT FIXTURE AND ALL ASSOCIATED ITEMS

04 REMOVE EXISTING HVAC GRILLE/DUCTWORK AS NEEDED TO RELOCATE TO REQUIRED POSITION IN NEW CEILING. REINSTALL EXISTING GRILLE COVER, PROVIDE FLEX DUCT AS REQUIRED TO ADJUST LOCATIONS

05 EXISTING CEILING MOUNTED OCCUPANCY SENSOR TO REMAIN, REMOVE AND REINSTALL AS REQUIRED FOR NEW CEILING INSTALLATION

06 EXISTING WALL MOUNTED WALL SWITCH WITH OCCUPANCY SENSOR TO BE REMOVED. REMOVE SWITCH RELATED OUTLETS, CONDUIT AND WIRING - DELIVER SWITCH TO OWNER

07 REMOVE/REINSTALL EXISTING WIRELESS ACCESS POINT DEVICE, COORDINATE LOCATION WITH NEW CEILING

08 REMOVE/REINSTALL EXISTING SENSOR/ALARM, COORDINATE LOCATION WITH NEW CEILING

CEILING DEMOLITION LEGEND

- REMOVE EXISTING SUPPLY AIR GRILLE
- REMOVE EXISTING RETURN AIR GRILLE
- REMOVE EXISTING CEILING BRACING AND COMPRESSION STRUT TYP
- REMOVE EXISTING SUSPENDED FLUORESCENT LIGHT FIXTURE AND ALL ASSOCIATED ITEMS, SEE ELECTRICAL
- FULL HT RATED WALL (EXISTING)
- NON-FULL HT PARTITION (EXISTING)
- EXISTING FULL HT PARTITION TO BE REMOVED, SEE FLOOR PLAN
- AP — EXISTING WIRELESS ACCESS POINT, REMOVE/REINSTALL TO PERFORM REQUIRED WORK, SEE PLANS FOR NEW LOCATIONS
- FS — EXISTING FIRE SPRINKLER TO REMAIN

GENERAL CEILING NOTES

1. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE REFLECTED CEILING PLAN AND AT THE DIRECTION OF THE ARCHITECT.
2. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL AIR-CONDITIONING GRILLES WITH LIGHT FIXTURE LAYOUTS, REFLECTED CEILING PLAN AND AT THE DIRECTION OF THE ARCHITECT.
3. HVAC REGISTERS AND GRILLES SHALL BE LOCATED EQUALLY BETWEEN OPPOSITE WALLS UNO.

CEILING TYPE LEGEND

Type	Description	Dtl
TYPE A	24x48 CEILING GRID WITH ARMSTRONG CORTEGA LAY IN PANELS. SEE SPECIFICATIONS FOR MORE INFORMATION	44 / A9.00

CEILING LEGEND

- 2X4 SUSPENDED LED LIGHT FIXTURE- KEYSTONE KT-CBLED30PS-24B-8CSA-VDIM
- 2X4 SUSPENDED LED EMERGENCY LIGHT FIXTURE- KEYSTONE KT-CBLED30PS-24B-8CSA-VDIM WITH SMARTSAFE EMERGENCY BACKUP
- SUPPLY AIR REGISTER
- RETURN AIR REGISTER
- BRACING AND COMPRESSION STRUT LOCATION (MINIMUM LOCATIONS) — 44 / A9.00
- FULL HT RATED WALL (EXISTING)
- NON-FULL HT PARTITION (EXISTING)
- EXISTING FULL HT PARTITION TO BE REMOVED, SEE FLOOR PLAN
- AP — EXISTING WIRELESS ACCESS POINT, REMOVE/REINSTALL TO PERFORM REQUIRED WORK, SEE PLANS FOR NEW LOCATIONS
- FS — EXISTING FIRE SPRINKLER TO REMAIN, IF FIRE SPRINKLER LOCATION CONFLICTS WITH NEW GRID, SHIFT GRID TO ACCOMMODATE FIRE SPRINKLER(S). PROVIDE NEW ESCUTCHEONS AT EXISTING FIRE SPRINKLERS

REFLECTED CEILING PLAN KEYNOTES

09 INSTALL SUSPENDED LAY-IN ACOUSTICAL CEILING SYSTEM INCLUDING WIRES, ANCHORS, AND CONNECTORS.

10 INSTALL RECESSED LED LIGHT FIXTURE AND ALL ASSOCIATED ITEMS

11 REINSTALL EXISTING HVAC GRILLE/DUCTWORK AS NEEDED TO RELOCATE TO REQUIRED POSITION IN NEW CEILING. REINSTALL EXISTING GRILLE REGISTER, PROVIDE FLEX DUCT AS REQUIRED TO ADJUST LOCATIONS

12 REINSTALL EXISTING CEILING MOUNTED OCCUPANCY SENSOR TO REMAIN, LEAVE EXISTING CONNECTION TO WALL SWITCH INTACT

13 REINSTALL EXISTING WIRELESS ACCESS POINT DEVICE

14 EXISTING KITCHEN EQUIPMENT SENSOR/ALARM TO REMAIN IN SAME LOCATION, COORDINATE WITH NEW CEILING WORK

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BOOKSTORE REMODEL

Cerro Coso Community College
3000 College Heights Blvd Ridgecrest CA 93555
Kern Community College District

ARCHITECT

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STATE OF CALIFORNIA

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CONSULTANT

AGENCY APPROVAL

PROJECT INFO

Project No	569-0003
Date	05.05.23

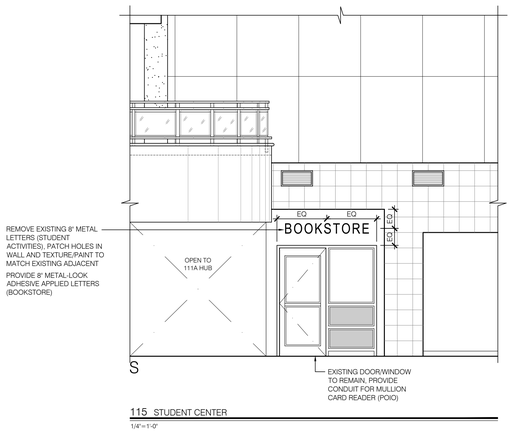
REVISIONS

No	Date	Item

09.18.23 11:41

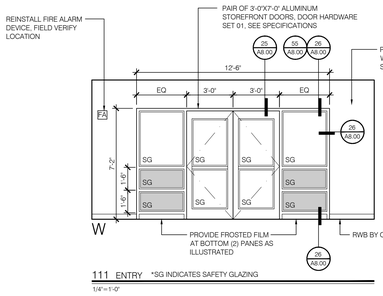
DEMOLITION REFLECTED CEILING PLAN/ REFLECTED CEILING PLAN

A5.00



115 STUDENT CENTER

1/4" = 1'-0"

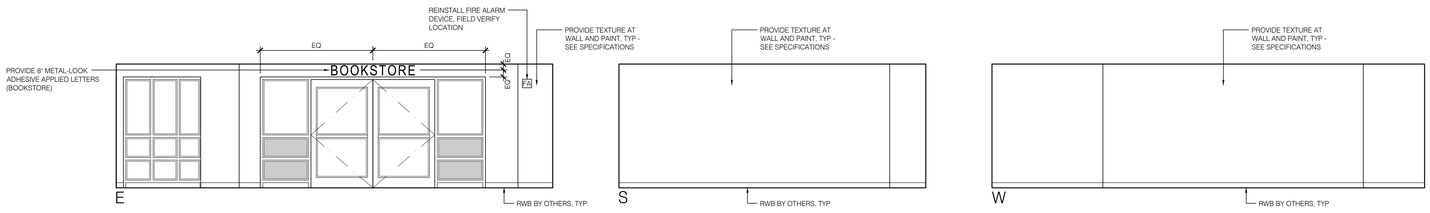


111 ENTRY *SG INDICATES SAFETY GLAZING

1/4" = 1'-0"

113 BOOKSTORE

1/4" = 1'-0"



113 BOOKSTORE *SEE INTERIOR 111W FOR STOREFRONT DOOR/WINDOW INFORMATION

1/4" = 1'-0"

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BOOKSTORE REMODEL

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CONSULTANT

AGENCY APPROVAL

PROJECT INFO

Project No	569-0003
Date	05.05.23

REVISIONS

No	Date	Item

09.18.23 11:44

INTERIOR ELEVATIONS

A6.00

1. CEILING SYSTEM GENERAL NOTES
- 1.01 CEILING SYSTEM COMPONENTS SHALL COMPLY WITH ASTM C635 AND SECTION 5.1 OF ASTM E580.
- 1.02 THE CEILING GRID SYSTEM MUST BE RATED HEAVY DUTY AS DEFINED BY ASTM C635.
- 1.03 CEILING SYSTEMS: THE FOLLOWING CEILING SYSTEM(S) IS/ARE PART OF THE SCOPE OF THIS PROJECT:
  - MANUFACTURER: [ARMSTRONG CEILING SYSTEMS]
  - PRODUCT NAME: [PRELUDE XL 15/16" EXPOSED TEE]
  - EVALUATION REPORT TYPE AND NUMBER: [ICC-ESR-1308]
  - MAIN RUNNER PART, MODEL, OR CATALOG NUMBER: [#7301]
  - CROSS RUNNER PART, MODEL, CATALOG NUMBER: [#XL 7341]
- 1.04 SEISMIC WALL CLIP:
  - MANUFACTURERS MODEL: N/A
- 1.05 CEILING PANELS SHALL NOT SUPPORT ANY LUMINAIRES, AIR TERMINALS OR DEVICES.
- 1.06 FOR CEILING INSTALLATIONS UTILIZING ACOUSTICAL TILE PANELS OF MINERAL OR GLASS FIBER, IT IS NOT MANDATORY TO PROVIDE ½" CLEARANCE BETWEEN THE ACOUSTICAL TILE PANELS AND THE WALL ON THE SIDES OF THE CEILING WHICH ARE FREE TO SLIP. FOR ALL OTHER CEILING PANEL TYPES, PROVIDE ½" CLEARANCE BETWEEN THE CEILING PANEL AND THE WALL ON THE SIDES OF THE CEILING FREE TO SLIP. CLEARANCE BETWEEN CEILING GRID RUNNERS/MEMBERS AND WALLS SHALL COMPLY WITH THE DETAILS ON THESE DRAWINGS REGARDLESS OF CEILING TILE MATERIAL.

2. MATERIALS
- 2.01 CEILING WIRE SHALL BE CLASS 1 ZINC COATED (GALVANIZED) CARBON STEEL CONFORMING TO ASTM A641. WIRE SHALL BE #12 GAUGE (0.106" DIAMETER) WITH SOFT TEMPER AND MINIMUM ULTIMATE TENSILE STRENGTH — 70 KSI.
- 2.02 GALVANIZED SHEET STEEL (INCLUDING THAT USED FOR METAL STUD AND TRACK COMPRESSION STRUTS/POST) SHALL CONFORM TO ASTM A653, OR OTHER EQUIVALENT SHEET STEEL LISTED IN SECTION A3.1 OF THE NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, (AISI S100). MATERIAL 43 MIL (18 GAUGE) AND LIGHTER SHALL HAVE MINIMUM YIELD STRENGTH OF 33 KSI. MATERIAL 54 MIL (16 GAUGE) AND HEAVIER SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI.
- 2.03 ELECTRICAL METALLIC TUBE (EMT) SHALL BE ANSI C80.3/UL 797 CARBON STEEL WITH G90 GALVANIZING. EMT SHALL HAVE MINIMUM YIELD STRENGTH (FY) OF 30 KSI AND MINIMUM ULTIMATE STRENGTH (FU) OF 48 KSI.

3. ATTACHMENT OF HANGER AND BRACING WIRES
- 3.01 SEPARATE ALL CEILING HANGER AND BRACING WIRES AT LEAST 6 INCHES FROM ALL UNBRACED DUCTS, PIPES, CONDUIT, ETC.
- 3.02 HANGER AND BRACING WIRES SHALL NOT ATTACH TO OR BEND AROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO PIPING, DUCTWORK, CONDUIT AND EQUIPMENT.
- 3.03 HANGER WIRES THAT ARE MORE THAN ONE (HORIZONTAL) IN SIX (VERTICAL) OUT OF PLUMB SHALL HAVE COUNTER-SLOPING WIRES.
- 3.04 SLACK SAFETY WIRES SHALL BE CONSIDERED HANGER WIRES FOR INSTALLATION AND TESTING REQUIREMENTS.
- 3.05 HANGER AND BRACING WIRE ANCHORAGE TO THE STRUCTURE SHALL BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE ANCHORAGE ALIGNS CLOSELY WITH THE DIRECTION OF THE WIRE (E.G., BRACING WIRE CEILING CLIPS MUST BE BENT AS SHOWN IN THE DETAILS AND ROTATED AS REQUIRED TO ALIGN CLOSELY WITH THE DIRECTION OF THE WIRE. SCREW EYES IN WOOD MUST BE INSTALLED SO THEY ALIGN CLOSELY WITH THE DIRECTION OF THE WIRE, ETC.).

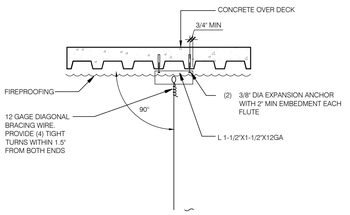
4. FASTENERS AND WELDING
- 4.01 SHEET METAL SCREWS SHALL COMPLY WITH ASTM C1513 AND ASME B18.6.3. PENETRATION OF SCREWS THROUGH JOINED MATERIAL SHALL NOT BE LESS THAN THREE EXPOSED THREADS.
- 4.02 EXPANSION ANCHORS SHALL BE: (HILTI KBTZ2, ICC-ESR-4266]
- 4.03 POWER-ACTUATED FASTENERS SHALL BE: [HILTI X-U SHOT PINS, ICC-ESR-2269]
- 4.04 IF NOT OTHERWISE SPECIFIED IN THE EVALUATION REPORT, POWER-ACTUATED FASTENERS INSTALLED IN STEEL SHALL BE INSTALLED SO THE ENTIRE POINTED END OF THE FASTENER IS DRIVEN THROUGH THE STEEL MEMBER
- 4.05 POWER-ACTUATED FASTENERS IN CONCRETE OR MASONRY ARE NOT PERMITTED FOR BRACING WIRES.
- 4.06 CONCRETE REINFORCEMENT AND PRESTRESSING TENDONS SHALL BE LOCATED BY NON-DESTRUCTIVE MEANS PRIOR TO INSTALLING POST-INSTALLED ANCHORS.
- 4.07 WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3 USING E60XX SERIES ELECTRODES.

5. TESTING
- 5.01 ALL FIELD TESTING MUST BE PERFORMED IN THE PRESENCE OF THE PROJECT INSPECTOR.
- 5.02 POST-INSTALLED ANCHORS IN CONCRETE USED TO SUPPORT HANGER WIRES SHALL BE TESTED AT A FREQUENCY OF 10 PERCENT. POWER-ACTUATED FASTENERS IN CONCRETE SHALL BE FIELD TESTED FOR 200 POUNDS IN TENSION. ALL OTHER POST-INSTALLED ANCHORS IN CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CBC SECTION 1910A.5.
- 5.03 POST-INSTALLED ANCHORS IN CONCRETE USED TO ATTACH BRACING WIRES SHALL BE TESTED AT A FREQUENCY OF 50 PERCENT IN ACCORDANCE WITH CBC SECTION 1910A.5.

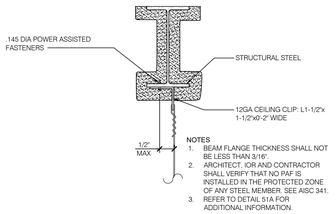
6. LUMINAIRES
- 6.01 ALL LUMINAIRES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE LUMINAIRE. A MINIMUM OF TWO SCREWS OR APPROVED FASTENERS ARE REQUIRED AT EACH LUMINAIRE, PER ASTM E580 SECTION 5.3.1.
- 6.02 SURFACE-MOUNTED LUMINAIRES SHALL BE ATTACHED TO THE MAIN RUNNER WITH AT LEAST TWO POSITIVE CLAMPING DEVICES. THE CLAMPING DEVICE SHALL COMPLETELY SURROUND THE SUPPORTING CEILING RUNNER AND BE MADE OF STEEL WITH A MINIMUM THICKNESS OF #14 GAUGE. ROTATIONAL SPRING CATCHES DO NOT COMPLY. A #12 GAUGE SLACK SAFETY WIRE SHALL BE CONNECTED FROM EACH CLAMPING DEVICE TO THE STRUCTURE ABOVE. PROVIDE ADDITIONAL SUPPORTS WHEN A LUMINAIRE IS 8 FEET OR LONGER OR EXCEEDS 56 POUNDS. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED 8 FEET.
- 6.03 LUMINAIRES WEIGHING LESS THAN OR EQUAL TO 10 POUNDS MAY BESUPPORTED DIRECTLY ON THE CEILING RUNNERS, SHALL HAVE A MINIMUM OF ONE #12 GAUGE SLACK SAFETY WIRE CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE.
- 6.04 LUMINAIRES WEIGHING GREATER THAN 10 POUNDS BUT LESS THAN OR EQUAL TO 56 POUNDS MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, BUT THEY SHALL HAVE A MINIMUM OF TWO #12 GAUGE SLACK SAFETY WIRES CONNECTED FROM THE FIXTURE HOUSING AT DIAGONAL CORNERS TO THE STRUCTURE ABOVE.
  - EXCEPTION: ALL LUMINAIRES GREATER THAN TWO BY FOUR FEET WEIGHING LESS THAN 56 POUNDS SHALL HAVE A #12 GAUGE SLACK SAFETY WIRE AT EACH CORNER.
- 6.05 ALL LUMINAIRES WEIGHING GREATER THAN 56 POUNDS SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR TAUT #12 GAUGE HANGER WIRES (ONE AT EACH CORNER) ATTACHED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS. THE FOUR TAUT #12 GAUGE WIRES OR OTHER APPROVED HANGERS, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, SHALL BE CAPABLE OF SUPPORTING FOUR TIMES THE WEIGHT OF THE FIXTURE.

7. SERVICES WITHIN THE CEILING
- 7.01 ALL FLEXIBLE SPRINKLER HOSE FITTING MOUNTING BRACKETS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS. SCREWS OR APPROVED FASTENERS ARE REQUIRED. A MINIMUM OF TWO ATTACHMENTS ARE REQUIRED AT EACH COMPONENT.
- 7.02 CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING LESS THAN OR EQUAL TO 20 POUNDS SHALL HAVE ONE #12 GAUGE SLACK SAFETY WIRE ATTACHED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.
- 7.03 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 20 POUNDS BUT LESS THAN OR EQUAL TO 56 POUNDS SHALL HAVE TWO #12 GAUGE SLACK SAFETY WIRES (AT DIAGONAL CORNERS) CONNECTED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.
- 7.04 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 56 POUNDS SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE BY NOT LESS THAN FOUR TAUT #12 GAUGE HANGER WIRES ATTACHED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS.

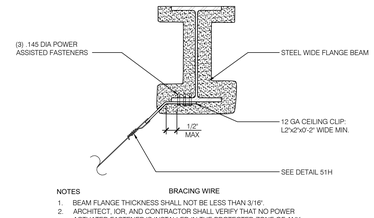
8. OTHER DEVICES WITHIN THE CEILING
- 8.01 ALL LIGHTWEIGHT MISCELLANEOUS DEVICES, SUCH AS STROBE LIGHTS, OCCUPANCY SENSORS, SPEAKERS, EXIT SIGNS, ETC., SHALL BE ATTACHED TO THE CEILING GRID. IN ADDITION, DEVICES WEIGHING MORE THAN 10 POUNDS SHALL HAVE A #12 GAUGE SLACK SAFETY WIRE ANCHORED TO THE STRUCTURE ABOVE. DEVICES WEIGHING MORE THAN 20 POUNDS SHALL BE SUPPORTED INDEPENDENTLY FROM THE STRUCTURE ABOVE.



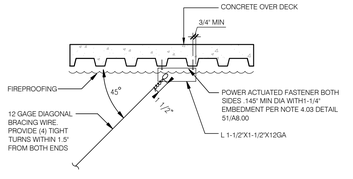
A HANGER WIRE AT STEEL DECK (90°)



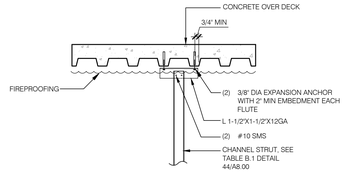
B HANGER WIRE AT STRUCTURAL STEEL (90°)



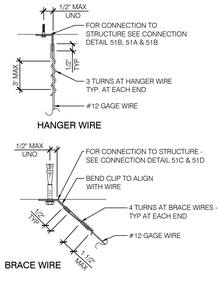
C HANGER WIRE AT STRUCTURAL STEEL (ANGLED)



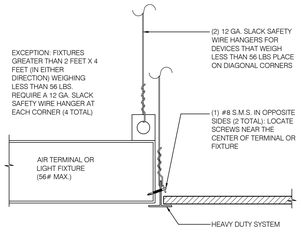
D HANGER WIRE AT STEEL DECK (ANGLED)



E CHANNEL STRUT AT STEEL DECK

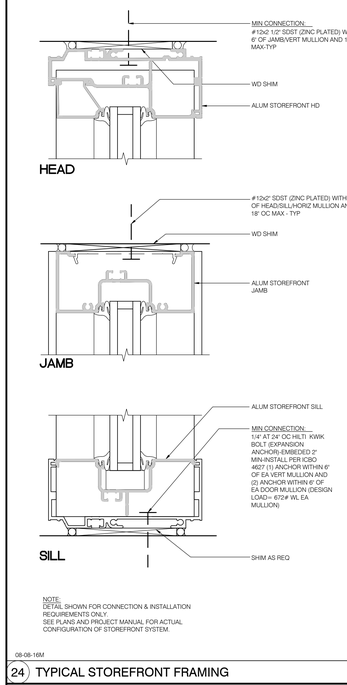


H HANGER AND BRACE WIRE CONNECTION



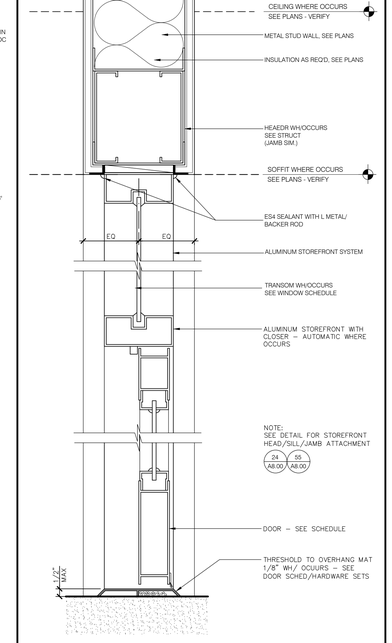
K LUMINAIRE/AIR TERMINAL SUPPORT

51 METAL SUSPENSION SYSTEMS FOR LAY-IN PANEL CEILING



08-08-16M

24 TYPICAL STOREFRONT FRAMING



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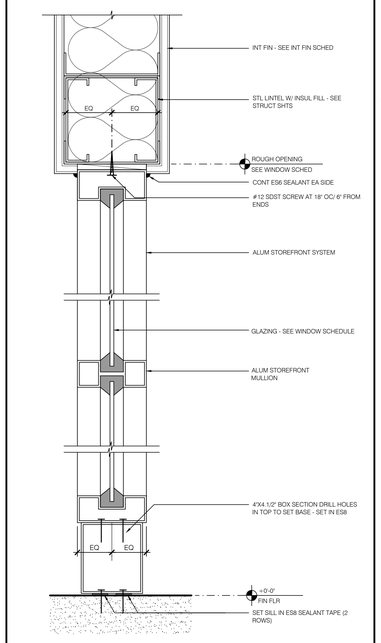
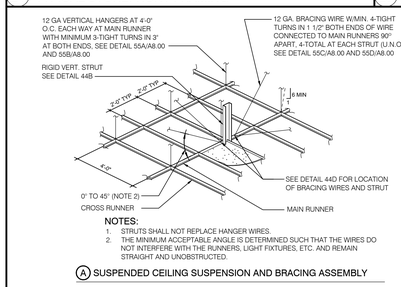
25 STOREFRONT DOOR

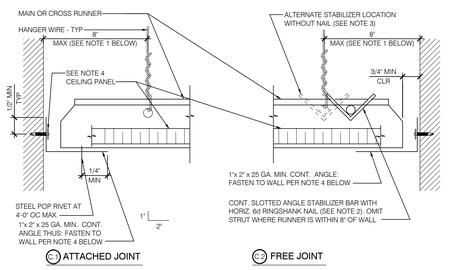


A2.02

26 INTERIOR SF HEAD/MULLION/SILL : 3"



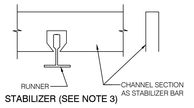
A SUSPENDED CEILING SUSPENSION AND BRACING ASSEMBLY



C-1 ATTACHED JOINT C-2 FREE JOINT

NOTES:
1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS. FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.
2. NAILS AT ENDS OF HORIZONTAL STABILIZERS ARE TO BE PLACED WITH NAIL HEAD TOWARD CENTER LINE OF SPAN OF STRUT.
3. STABILIZER BAR MAY BE SLOTTED APPROVED ANGLES OR CHANNELS WITH "DIAMOND POINTS" OF SPRING STEEL WHICH SNAP TIGHT TO PREVENT MOVEMENT OF STRUT.
4. FASTEN ANGLE TO WALL STUD OR BLOCKING AS FOLLOWS:
   - A. METAL STUD (20 GA. MIN.) WALL: (1) #10 SMS AT 24" O.C. MAX.
   - B. WOOD STUD WALL: #10X2" LONG WOOD SCREW AT 16" O.C. MAX.

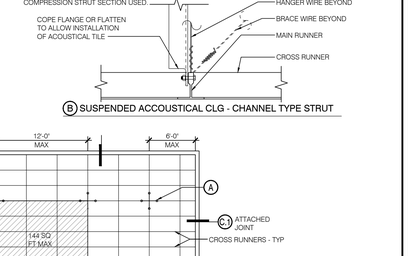
C CEILING PERIMETER



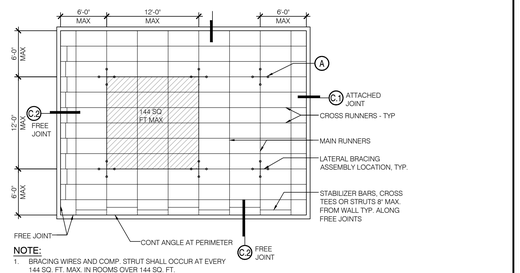
STABILIZER (SEE NOTE 3)

COMPRESSION STRUT CHANNEL SECTION	MAXIMUM LENGTH
250S125-33	5' - 10"
250S137-33	6' - 10"
362S137-33	8' - 0"
250S137-43	8' - 10"
400S137-43	10' - 10"

B.1 COMPRESSION STRUT TABLE



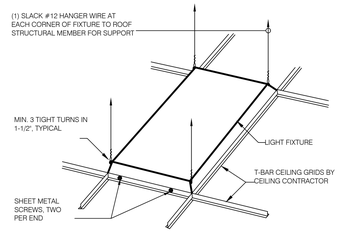
B SUSPENDED ACCOUSTICAL CLG - CHANNEL TYPE STRUT



NOTE:
1. BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 144 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.

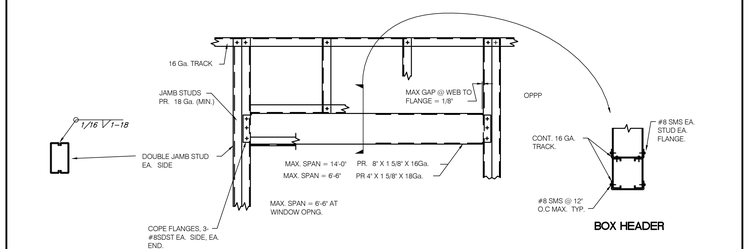
D TYPICAL CLG PLAN FOR 12' x 12' BRACE ASSEMBLY SPACING

44 WIRE SUSPENSION CEILING SYSTEM



1. PROVIDE TWO HANGER WIRES AT OPPOSITE CORNERS FOR HEAVY DUTY RATED CEILING SYSTEM. PROVIDE FOUR HANGER WIRES, ONE AT EACH CORNER, FOR INTERMEDIATE RATED CEILING SYSTEM OR IF THE FIXTURE WEIGHS MORE THAN 56 POUNDS.
2. REFER TO DETAIN 51K FOR MORE INFORMATION.

54 RECESSED FIXTURE MOUNTING DTL :NTS



BOX HEADER

55 TYPICAL OPENING DETAILS

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AGENCY APPROVAL

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REVISIONS

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DETAILS

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