

SECTION 01 11 13 - SUMMARY OF WORK**PART 1 - GENERAL****1.1 SUMMARY**

- A. Construction of the work for **COMMUNITY DAY SCHOOL**, Merced, California. The work is defined as all material, labor, equipment and services necessary to do all work shown on the drawings and called for in the Specifications. The Work shall be as indicated on the Contract Documents.
- B. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS.
 - 2. DIVISION 01 SPECIFICATION SECTIONS.
 - 3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP.
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

1.2 DEFINITIONS

- A. The words "OWNER" and "DISTRICT" are synonymous and interchangeable, when used throughout this Project Manual.

1.3 SUBMITTALS

- A. Submit per Specification Section - SUBMITTAL PROCEDURES.
- B. Quality Assurance/Control Submittals:
 - 1. Certificates: indicate compliance with the Asbestos Hazard Emergency Regulations Act.
- C. Fire Prevention Safety Plan: Submit Local Fire Authority approved plan prior to the start of on-site construction.

1.4 QUALITY ASSURANCE

- A. Contractor's Qualifications:
 - 1. Contractor shall have experience and successfully completed 3 projects of similar scope and size to that indicated for this project.
 - 2. Contractor shall have demonstrated that they have the resources to perform all requirements of this project.
- B. Regulatory Requirements:
 - 1. Comply with codes, ordinances, rules, regulations, orders and other legal requirements of public authorities which bear on performance of Work, and in accordance with Specification Section - REGULATORY REQUIREMENTS:
 - a. CARB Materials and equipment used for this Project shall comply with the current applicable regulations of the California Air Resources Board (CARB) and the Environmental Protection Agency (EPA), in the area where the Project is located.
- C. Certifications:
 - 1. Certify in writing that no materials containing Asbestos are incorporated in the work per the Asbestos Hazard Emergency Regulations Act.
- D. Contractor's Duties:
 - 1. Except as specifically noted, provide and pay for:
 - a. Labor, material and equipment.
 - b. Tools, construction equipment and machinery.

SUMMARY OF WORK

2533

- c. Heat and utilities required for construction. See Specification Section - TEMPORARY FACILITIES AND CONTROLS.
 - d. Other facilities and services necessary for proper execution and completion of Work.
- 2. Pay legally required sales, consumer and use taxes.

SUMMARY OF WORK

2533

3. Secure and pay for all site specific as necessary for proper execution and completion of Work.
 - a. Licenses.
 - b. Permits and Fees.
 - c. Government Fees.
 - d. Royalties.
4. Give required notices.
5. Promptly submit written notice to Architect of observed variance.
6. Enforce strict discipline and good order among employees. Do not employ on Work:
 - a. Unfit persons.
 - b. Persons not skilled in assigned task.

1.5 FIRE PREVENTION SAFETY PLAN

- A. Responsibility: Contractor is responsible for the development and implementation of fire prevention program.
 1. Refer to DSA Bulletin: Fire Safety During Construction and Demolition.
 2. Refer to TEMPORARY FACILITIES AND CONTROLS for requirements.

1.6 WORK UNDER OTHER CONTRACTS

- A. General Requirements:
 1. Work under separate contracts will occur throughout the duration of the project. The work being installed under separate contracts will occur around adjacent to the Contract project site.
 2. Contractor shall coordinate its work with the work under separate Contracts and shall cooperate with the Contractors of these separate Contracts as they occur.
 3. Should the Contractor damage and/or otherwise alter work installed under separate contracts, the Contractor is responsible for the repair and/or correction of installed work.
 4. Prior to the installation of the Work, coordinate the work installed or to be installed by separate contracts relative to this project scope of work.
- B. Work by Owner:
 1. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this contract or work by Owner. Coordinate the work of this Contract with work performed by Owner.
 2. Concurrent Work: Owner will perform the following construction operations at Project site. Those operations will be constructed simultaneously with work under this Contract.
 - a. Items that are Owner Furnished Contractor Installed and Owner Furnished Owner Installed as indicated on the Contract Drawings and as defined in Specification Section - OWNER FURNISHED ITEMS.
 3. .
- C. Work Under Separate Contracts by Others:
 1. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the work of this Contract with work performed under separate contracts.
- D. Future Work:
 1. The Contract Documents include requirements that will allow the Owner to carry out future work following completion of this Project; provide for the following future work:

1.7 PROJECT CONDITIONS

- A. Access to Site:

SUMMARY OF WORK

2533

1. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of the Project.

SUMMARY OF WORK

2533

2. Contractor shall be responsible for coordinating access to and from the site throughout the duration of the project. Access to and from the site may vary, based upon timing and duration of separate contracts.

B. Contractor Use of Premises:

1. Confine operations at sites to areas permitted by:
 - a. Laws.
 - b. Ordinances.
 - c. Permits.
 - d. Contract Documents.
2. Do not unreasonably encumber site with materials or equipment.
3. Assume full responsibility for protection and safekeeping of Contractor's and Owner's material stored on premises, and keep the site and building secure at all times.
4. Obtain and pay for use of additional storage Work areas needed for operations.
5. Limit use of Site Work and storage.

1.8 SCHEDULING

- A. The Work of this Project will be constructed under a single contract.
 1. It is anticipated that the start of construction will be around:
 - a. March 2026

PART 2 - PRODUCTS

NOT APPLICABLE

PART 3 - EXECUTION

NOT APPLICABLE

END OF SECTION

SCHEDULE OF VALUES

2533

SECTION 01 29 73 – SCHEDULE OF VALUES**PART 1 - GENERAL****1.1 SUMMARY**

- A. Provide all material, labor, equipment, and services necessary to completely document Schedule of Values.
- B. Related Requirements: The following Project Manual Sections contain requirements that relate to this section:
 - 1. 01 11 13 SUMMARY OF WORK.
 - 2. 01 21 13 ALLOWANCES.
 - 3. 01 23 00 ALTERNATES.
 - 4. 01 32 16 CONSTRUCTION SCHEDULE.
 - 5. 01 32 26 FORMS AND REPORTS.
 - 6. 01 33 00 SUBMITTAL PROCEDURES.
 - 7. 01 41 00 REGULATORY REQUIREMENTS.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring and controlling the construction project. Activities included in a Schedule of Values and Payment Request consume cost for time and resources.
- B. Activity Code: Identifies each activity so as to be organized, group and sorted into Sub-Schedules, Areas of Work, and Reports.
- C. Allowances: Contract amounts allocated for specific activities of the project as identified in the contract documents.
- D. Application for Payments: A statement furnished by the Contractor allocating portions of the Contract Sum to various portions of the Work stipulating the amount of work that has been completed to date.
- E. Contingency: Contract amounts allocated for non-specific activities, to cover changes in the contract document work, unforeseen conditions and added scope of work to the project.
- F. Major Scope: Significant portions of work identified as, but not limited to, Base Bid, Alternate Bids, and Construction Phases, and Funding Criteria.
- G. Responsible Party: Entity that is responsible for performing the work of each activity as identified, but not limited to, General Contractor, and Sub-Contractor, second and tertiary tier Sub-Contractors, Manufacturers, Fabricators and Vendors.
- H. Schedule of Values: A statement furnished by the Contractor allocating portions of the Contract Sum to various portions of the Work.
- I. Scope Type: Segments of work identified as, but not limited to, Building ID, On-Site, and Off-Site.
- J. Sub-Schedules: Separated activities identified as part of the same element of work and arranged to show correlation with related elements.
- K. Unit Prices: A price per unit of measurement for materials, equipment, or services, or a portion of the Work that are applicable during the duration of the Work.

1.3 SUBMITTALS

- A. General:
 - 1. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES.
- B. Format for Submittals: A tabular form type schedules.

SCHEDULE OF VALUES

2533

1. Provide a working electronic copy of schedule file.
 - a. Provide schedule files on Compact Disc (CD) or Digital Versatile Disc (DVD) (WINDOWS Formatted Disks) in a form that can be reviewed and used by the Owner, and Architect.
2. Provide PDF electronic copy of schedule file.

SCHEDULE OF VALUES

2533

3. Provide **Two (2)** paper copies of schedules.
 - a. Sheet size shall be of adequate size to clearly show the required information for the entire construction period.
 - b. All required documentation shall have the Submittal number posted in the upper-right hand corner of the page.
- C. Assurance/Control Submittals:
 1. Schedule of Values.
 - a. Schedule of Bid Values.
 - 1) Submit within **fourteen (14)** days after the Award of Contract.
 - b. Complete Schedule of Values.
 - 1) Submit at the earliest possible date, but no later than **fifteen (15)** days prior to the date scheduled for submittal of initial Application for Payment.
 2. Application for Payment and Certification.
 - a. Application for Payment and Certification Forms.
 - 1) Submit along with the Complete Schedule of Values submittal.
 - b. Initial Application for Payment.
 - 1) Submit **seven (7)** prior to due date.
 - c. Application for Payment for Progress of Work.
 - 1) Submit monthly by the date directed by Owner.
 - d. Application for Payment at Substantial Completion.
 - 1) Submit after Architect issues the Certificate of Substantial Completion.
 - e. Final Application for Payment.
 - 1) Submit after competing Project Closeout requirements.
 3. Schedule of Unit Price.

1.4 SYSTEM DESCRIPTION

- A. General:
 1. The Architect considers the project Schedule of Values requirements to be significant to both the Contractor and the Owner. The development, submittal, and acceptance of the Schedule of Values, (Bid and Complete), and subsequent development and maintenance of the Application for Payments must be given high priority.
 - a. No payment will be made without the Architect's review and acceptance of the Schedule of Values.
 - b. Progress payments may be withheld in whole or part should the Contractor fail to comply with the requirements of this section.
 - c. No separate payment will be made to the Contractor for any of the requirements of this section. All such costs shall be part of the Contractor's planned project overhead costs included in its bid.
- B. Performance Requirements:
 1. Schedule of Bid Values: The Schedule of Bid Values shall be a breakdown of the Bid(s) submitted in the Bid Proposal and shall include all work that was bid on, regardless the scope of work awarded for construction. The breakdown shall be sufficient for the use by the Owner and Owner's Consultants to evaluate and determine cost of major scopes of work and the value of other owner agreements that are associated with the dollar value of the bid proposal.
 - a. Refer to Specification Section - SUMMARY OF WORK.
 - b. Refer to Specification Section - ALLOWANCES.
 - c. Refer to Specification Section - ALTERNATES.

SCHEDULE OF VALUES

2533

2. Complete Schedule of Values: Breakdown of the Contract Sum by specific line-item values, based on the individual activities in the Baseline Project Construction Schedules and to be the basis for the development of the Application for Payment.
 - a. Refer to Specification Section - CONSTRUCTION SCHEDULES.

SCHEDULE OF VALUES

2533

3. Application for Payments: Shall be derived from Baseline Project Construction Schedule utilizing the costs in the Complete Schedule of Values, and from subsequent Project Construction Schedule Updates, reflecting the Work performed as of planned and actual dates.
 - a. Refer to Specification Section - CONSTRUCTION SCHEDULES.
4. Unit Prices: If the Scope of Work or estimated quantities of Work by the Contract Documents is increased or decreased, Unit Prices are added to or deducted from the Contract Sum by appropriate modification.

1.5 QUALITY ASSURANCE

- A. Qualifications:
 1. The Contractor must have the capacity and capability of supporting the project by producing schedule-related data within **two (2)** days of request by the Architect, or Owner.
- B. Regulatory Requirements:
 1. In accordance with Specification Section - REGULATORY REQUIREMENTS.

PART 2 - PRODUCTS**2.1 GENERAL REQUIREMENTS**

- A. Coordination:
 1. Coordinate preparation of the Schedule of Bid Values with the submitted Bid Proposal and reflect the major scope of work breakdown described in Specification Section -- SUMMARY OF WORK and Specification Section -- ALTERNATES.
 2. Coordinate preparation of the Complete Schedule of Values with the preparation of the Baseline Project Construction Schedule. Refer to Specification Section -- CONSTRUCTION SCHEDULES.
 3. Correlate line items in the Complete Schedule of Values with other required administrative forms and schedules, including, but not limited to, the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittals Schedule.
 - c. Items required to be indicated as separate activities in the Baseline Project Construction Schedule.
- B. Project Information:
 1. Identification: Include the following Project Identification on all Schedule of Values and Application for Payment.
 - a. Project Name and Location.
 - b. Name of Owner and Address.
 - c. Name of Architect and Address.
 - d. Architect's Project Number.
 - e. Contractor's Name and Address.
 - f. Submittal Date.

2.2 SCHEDULE OF BID VALUES

- A. Format:
 1. Arrange the Schedule of Bid Values in tabular form.
 - a. Provide and identify separate columns to indicate the following;
 - 1) SPECIFICATION SECTION.
 - 2) DESCRIPTION.
 - 3) RESPONSIBLE PARTY.

SCHEDULE OF VALUES

2533

- 4) MAJOR SCOPE.
- 5) DOLLAR VALUE.
- 6) PERCENTAGE OF THE CONTRACT SUM.

b. Provide and identify separate line-items to indicate the following;

SCHEDULE OF VALUES

2533

- 1) Activity.
- 2) Contract Conditions.
- 3) Allowance(s).
- 4) Contingency (ies).
- 5) Grand Totals.

B. Content:

1. SPECIFICATION SECTION: Use the specification section number in the Project Manual Table of Contents to identify and establish each line-item.
2. DESCRIPTION: Provide a description of the work for each line-item associated with the specification section and responsible party.
3. RESPONSIBLE PARTY: Identify the party responsible for performing the work of each line-item associated with the specification section and description.
4. MAJOR SCOPE: Designate Major scope of work as identified and itemized in BID PROPOSAL.
 - a. Provide separate columns for each Major Scope of Work identified.
5. DOLLAR VALUE: Sub-Total of the cost for each activity line-item, with the amounts rounded to the nearest dollar.
 - a. Assign a dollar value for each line-item to each Major Scope of the project excluding General Conditions, General Requirements and General Contractor's Overhead and Profit.
6. PERCENTAGE OF THE CONTRACT SUM: Dollar Value as a percentage of the Contract Sum to the nearest one-hundredth percent, adjusted to total one hundred percent.
7. Activity: Provide at least one activity item-line for the work in each Specification Section.
 - a. Provide separate activity line items for each Contractor or Subcontractor providing work under the same specification section.
8. Contract Conditions:
 - a. Identify and provide separate activity line-item for cost items that are directly related to Division 01 - GENERAL REQUIREMENTS.
 - b. Identify and provide separate activity line-item for cost items that are directly related to Division 00 - CONDITIONS OF THE CONTRACT.
9. Allowances: Identify and provide separate activity line-item for each Allowance that is assigned for specific work in any specification section. Dollar value to exclude General Contractor's Overhead and Profit.
10. Contingencies: If required, identify and provide separate activity line-item for each Contingency that is not assigned to specific work in any specification section. Dollar value to exclude General Contractor's Overhead and Profit.
 - a. If required, provide separate line items for Owner Contingency and Contractor Contingency.
11. Grand Total: Summation of dollar value for each column equal to the Bids received.

2.3 COMPLETE SCHEDULE OF VALUES

A. Format:

1. Provide a comprehensive, fully developed, detailed Complete Schedule of Values in tabular form.
 - a. Provide and identify the following separate columns to indicate the following for each item listed;
 - 1) SPECIFICATION SECTION.
 - 2) ACTIVITY CODE.
 - 3) DESCRIPTION.
 - 4) RESPONSIBLE PARTY.

SCHEDULE OF VALUES

2533

- 5) MAJOR SCOPE.
- 6) SCOPE TYPE.
- 7) DOLLAR VALUE.

SCHEDULE OF VALUES

2533

- b. Provide and identify separate line-items to indicate the following;
 - 1) Activity.
 - 2) Sub-Schedules.
 - 3) Contract Conditions.
 - 4) Allowances.
 - 5) Purchase Contracts.
 - 6) Contingencies.
 - 7) Grand Totals.
- B. Content:
 - 1. SPECIFICATION SECTION: Use the specification section number in the Project Manual Table of Contents to identify and establish each line-item.
 - 2. ACTIVITY CODE: Provide the Activity Identification Code for each line-item indicated as separate activities in the Baseline Project Construction Schedule.
 - 3. DESCRIPTION: Provide a description of the work for each line-item associated with the specification section and responsible party.
 - 4. RESPONSIBLE PARTY: Identify the party responsible for performing the work of each line-item associated with the specification section and description.
 - 5. MAJOR SCOPE: Designate Major scope of work as identified and itemized in BID PROPOSAL
 - 6. SCOPE TYPE: Identify each line-item that is associated with a segment of work.
 - 7. DOLLAR VALUE: Sub-Total of the cost for each activity line-item, with the amounts rounded to the nearest dollar.
 - a. Assign a dollar value for each line-item to each Major Scope of the project excluding General Conditions, General Requirements and General Contractor's Overhead and Profit.
 - 8. Activity: Provide at least one activity item-line for the work in each Specification Section.
 - a. Provide separate activity line items for each Contractor or Subcontractor providing work under the same specification section.
 - b. Include entities responsible for performing the work of each activity, identified as, but not limited to, General Contractor, and Sub-Contractor, second and tertiary tier Sub-Contractors, Manufacturers, Fabricators and Vendors.
 - c. Include separate activity line-items for cost items that are directly related to Division 01 - GENERAL REQUIREMENTS and are direct cost of actual work-in-place. Such items shall be, but not limited to, the following;
 - 1) Submittals,
 - 2) Field Engineering,
 - 3) Operation and Maintenance Manuals.
 - 4) Demonstration and Training.
 - 9. Sub-Schedules:
 - a. Major Scope of Work: Provide Sub-Schedules for line-items that are associated with each designated major scope of work as identified in Bid Proposal, and defined in Specification Section -- SUMMARY OF WORK and Specification Section -- ALTERNATES that requires itemization of each line-item value.
 - b. Scope Type: Provide Sub-Schedules for line-items that are associated with each specific scope type.
 - 1) Building Costs: Detailed cost breakdown of all cost items that are directly related to the Project per Building.
 - a) When the Project Building(s) is of sufficient size to warrant, break the building costs down into areas of work compatible with the Contractor's Means and Methods for construction sequences.

SCHEDULE OF VALUES

2533

- b) Building areas may consist of floor and roof levels and partial floor and roof levels.
- 2) Project Site Costs: Detailed cost breakdown of all cost items that are directly related to the Project Site.

SCHEDULE OF VALUES

2533

- a) When the Project Site is of sufficient size to warrant, break the site costs down into areas of work compatible with the Contractor's Means and Methods for construction sequences.
- 10. Contract Conditions: As defined in the Schedule of Bid Values and the following;
 - a. Expand to include separate activity line-items for cost items that are directly related to Division 01 - GENERAL REQUIREMENTS and are not direct cost of actual work-in-place. Such items shall be, but not limited to, the following;
 - 1) Temporary Facilities.
 - 2) Field Supervision.
 - 3) Project Identification Sign.
 - 4) Project Closeout Requirements.
 - a) Punch List Activities, and Project Record Documents.
 - b. Expand to include separate activity line-item for cost items that are directly related to Division 00 - CONDITIONS OF THE CONTRACT REQUIREMENTS and are not direct cost of actual work-in-place. Such items shall be, but not limited to, the following;
 - 1) On-Site Facilities and Supervision.
 - 2) General Contractor's Overhead and Profit.
 - 3) Performance and Labor and Material Bonds.
- 11. Allowances: Identify and provide separate activity line-item for each Allowance that is assigned for specific work in any specification section. Dollar value to exclude General Contractor's Overhead and Profit.
- 12. Purchase Contracts: Provide separate line-item in the Schedule of Values for each Purchase Contract, showing the value of the Purchase Contract.
- 13. Contingencies: If required, identify and provide separate activity line-item for each Contingency that is not assigned to specific work in any specification section. Dollar value to exclude General Contractor's Overhead and Profit.
 - a. If required, provide separate line items for Owner Contingency and Contractor Contingency.
- 14. Grand Total: Summation of dollar value for each column equal to the Bids received.

2.4 UNIT PRICES

- A. Unit Prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead and profit.
 - 1. Breakdown prices into:
 - a. Delivered cost of products(s) including tax.
 - b. Total installed cost excluding overhead and profit.
 - c. Add Contractor's and subcontractor's overhead and profit costs after subtotal and provide a final total.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of Unit Prices. Methods of measurement and payment for Unit Prices are specified in those sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established Unit Prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to the Contractor.

PART 3 - EXECUTION**3.1 APPLICATION AND CERTIFICATION FOR PAYMENT**

- A. General Requirements:

SCHEDULE OF VALUES

2533

1. Coordination: Coordinate the preparation of the Application for Payment with the preparation of the Complete Schedule of Values and Project Construction Schedule.
 - a. Entries shall match data on the Complete Schedule of Values and Project Construction Schedule and Project Schedule Updates, if revisions were made.

SCHEDULE OF VALUES

2533

2. Application and Certification for Payment Forms: Use forms accepted by the Architect and Owner for Applications for Payment.
 - a. Form shall be based on AIA Document G702 Application and Certification for Payment and AIA Document G703 Continuation Sheets.
 - b. Submit form for acceptance with initial submittal of Complete Schedule of Values.
 3. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of the Contractor. Project Inspector or Architect will return incomplete applications without action.
 - a. Use signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt. One copy shall include Waivers of Lien and similar attachments if required.
 4. Identification: Include the following Project Identification on all Application for Payment:
 - a. Project Name and Location.
 - b. Owner Name.
 - c. Architect's Project Number.
 - d. Contractor Name and Address.
 - e. Application Number.
 - f. Application Date.
 - g. Period To:
- B. Format.
1. Provide a comprehensive, fully developed, detailed Application for Payment with Continuation Sheets in tabular form.
 - a. Provide and identify the following separate columns to indicate the following for each item listed;
 - 1) ACTIVITY CODE.
 - 2) DESCRIPTION.
 - 3) SCHEDULED DOLLAR VALUE.
 - 4) WORK COMPLETED.
 - a) FROM PREVIOUS APPLICATION.
 - b) THIS PERIOD.
 - 5) TOTAL COMPLETED.
 - 6) PERCENTAGE OF COMPLETION.
 - 7) BALANCE TO FINISH.
 - 8) RETAINAGE.
 - b. Provide and identify separate line-items to indicate the following the following;
 - 1) Activity.
 - 2) Sub-Schedules.
 - 3) Contract Conditions.
 - 4) Allowance(s).
 - 5) Purchase Contracts (if applicable).
 - 6) Contingency (ies).
 - 7) Grand Totals.
 - 8) Change Orders.
- C. Content:
1. ACTIVITY CODE: Provide the Activity Identification Code for each line-item of Work as indicated as separate activities in the Project Construction Schedule.
 2. DESCRIPTION OF WORK: Provide the same description as indicated in the Schedule of Values for each line item.
 3. SCHEDULED DOLLAR VALUE: Provide the same amount as indicated in the Schedule of Values for each line item.

SCHEDULE OF VALUES

2533

4. WORK COMPLETED: with the following sub-columns.
 - a. FROM PREVIOUS APPLICATION, include Dollar Value for work completed in previous Application for Payment, whether or not payment has been received.

SCHEDULE OF VALUES

2533

- b. THIS PERIOD, include only the Dollar Value for work completed at the time of Application for Payment.
- 5. TOTAL COMPLETED: The sum Dollar Value of Work Completed and Materials Presently Stored.
- 6. PERCENTAGE OF COMPLETION: The percentage value of the total Work Completed and the Stored to Date divided by the Scheduled Value.
- 7. BALANCE TO FINISH: The dollar value of the Scheduled Value minus the Total Completed.
- 8. RETAINAGE: The dollar value of the percentage of retention per contract agreement.
- 9. Activity:
 - a. Use the Complete Schedule of Values and Baseline Project Schedule as a guide to establish activity line-items for the Application for Payment.
 - b. Include separate activity line-items when a work activity is separated into stages and requires separate payments for each stage.
 - c. Provide separate line-items for each part of the Work where separate payments will be requested including, but not limited to, submittals, materials, equipment, fabrication and installation.
 - d. Provide separate line items for materials stored but not yet installed, where separate payments will be requested.
- 10. Sub-Schedules: As described in the Complete Schedule of Values.
- 11. Contract Conditions: As described in the Complete Schedule of Values.
- 12. Allowances: As described in the Complete Schedule of Values.
- 13. Purchase Contracts: As described in the Complete Schedule of Values
 - a. Indicate Owner payments or deposits, if any, and balance to be paid by the Contractor.
- 14. Contingencies: As described in the Complete Schedule of Values.
- 15. Grand Totals: As described in the Complete Schedule of Values.
- 16. Change Orders:
 - a. Include amounts of approved Change Orders or Construction Change Directives issued before the last day of construction period covered by application.
- D. Supplemental Information:
 - 1. Materials Stored: Include in Application for Payment the amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site.
 - b. Provide certificate of insurance or Bonded Warehousing, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 - c. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 - d. Provide summary documentation for stored materials indicating the following:
 - 1) Materials previously stored and included in previous Applications for Payment.
 - 2) Work completed for this Application utilizing previously stored materials.
 - 3) Additional materials stored with this Application.
 - 4) Total materials remaining stored, including materials with this Application.
 - 2. Waivers of Mechanic's Lien: With each Application for Payment, submit Waivers of Mechanic's Liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
 - a. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 - b. When an Application shows completion of an item, submit conditional final or full waivers.
 - c. Owner reserves the right to designate which entities involved in the Work must submit waivers.

SCHEDULE OF VALUES

2533

- d. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
- e. Waiver Forms: Submit waivers of lien on forms executed in a manner acceptable to Owner.

SCHEDULE OF VALUES

2533

- E. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for payment include the following:
 - 1. List of Subcontractors.
 - 2. Schedule of Values.
 - 3. Contractor's Construction Schedule (preliminary if not final).
 - 4. Products List (preliminary if not final).
 - 5. Schedule of Unit Prices.
 - 6. Submittal Schedule (preliminary if not final).
 - 7. List of Contractor's Staff Assignments.
 - 8. List of Contractor's Principal Consultants.
 - 9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 - 10. Initial Progress Report.
 - 11. Report of Preconstruction Conference.
- F. Application for Payment for Progress of Work:
 - 1. Each Application for Payment shall be consistent with previous applications and payments as certified by the Project Inspector, Architect, and paid for by the Owner.
 - 2. Payment Applications shall be submitted to the Architect by the date established by the Owner. The maximum period of time covered by each Application for Payment is for one month.
 - 3. Payments Applications shall be updated to reflect any revised activity in the Project Schedule Updates.
- G. Application for Payment at Substantial Completion: After the issuing of the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portions of the Work claimed as substantially complete.
 - 1. Include documentation supporting the claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- H. Final Application for Payment: Submit Final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement accounting for final changes to the Contract Sum.
 - 4. "Contractor's Affidavit of Payment of Debts and Claims."
 - 5. "Contractor's Affidavit of Release of Liens."
 - 6. "Consent of Surety to Final Payment."
 - 7. Evidence that claims have been settled.
 - 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 - 9. Final liquidated damages settlement statement.

3.2 SCHEDULE OF UNIT PRICES

- A. Specification Section - CAST-IN-PLACE CONCRETE:
 - 1. Concrete slabs per thickness per square foot.
 - 2. Concrete foundations per cubic yard.
 - 3. Concrete walls per cubic yard.
- B. Specification Section - PLUMBING:

SCHEDULE OF VALUES

2533

1. Utility trenching, pipe placement and backfill per pipe diameter size per linear foot at specific trench depths.

C. Specification Section - ELECTRICAL:

SCHEDULE OF VALUES

2533

1. Utility trenching, sleeve pipe or conduit pipe placement and backfill per pipe diameter size per linear foot at specific trench depths.
- D. Specification Section - COMMUNICATIONS:
 1. Utility trenching, sleeve pipe or conduit pipe placement and backfill per pipe diameter size per linear foot at specific trench depths.
- E. Specification Section - ELECTRONIC SAFETY AND SECURITY:
 1. Utility trenching, sleeve pipe or conduit pipe placement and backfill per pipe diameter size per linear foot at specific trench depths.
- F. Specification Section - EARTHWORK:
 1. Scarification and compaction of existing soil per cubic yard.
 2. Excavation and compacted placement of existing suitable site soil for non-engineered fill per cubic yard.
 3. Delivery and compacted placement of import soil per cubic yard.
 4. Delivery and compacted placement of import soil for grading per cubic yard.
 5. Rough grading per square foot.
 6. Finish grading per square foot.
- G. Specification Section - STORM DRAINAGE:
 1. Delivery and installation of catch basins per individual catch basin size.
 2. Trenching, pipe placement and backfill per pipe diameter size per linear foot at specific trench depths.
 3. Miscellaneous storm drainage items per item.

END OF SECTION

CONSTRUCTION SCHEDULES

2533

SECTION 01 32 16 – CONSTRUCTION SCHEDULES**PART 1 - GENERAL****1.1 SUMMARY****A. This Section includes:**

1. Provide all material, labor, equipment and services necessary to completely provide Construction Schedules, Materials, accessories, and other related items necessary to complete the Project as indicated by the Contract Documents.
 - a. Provide an acceptable Critical Path Method (CPM) construction schedule and updating methods.
 - b. Use specific scheduling software.
 - c. Designate the Contractor's acceptable scheduling representative or utilize an acceptable scheduling consultant.
 - d. Prepare and submit a Preliminary Project Schedule (PPS).
 - e. Prepare and submit a CPM Baseline Project Schedule (BPS), and submit "cost-loaded" schedule data for the express use in the Monthly Progress.
 - f. Produce acceptable Monthly Schedule Updates (MSU), provide monthly schedule narrative reports, and attend monthly scheduling meetings.
 - g. Prepare Short Interval Schedules (SIS).
 - h. Prepare and submit Fragnet Submittals, when seeking time extensions, and/or float consumption.
 - i. Prepare acceptable recovery schedule(s) if the progress is unsatisfactory, and the requirement to gain acceptance from Architect for schedule revisions and sequence changes.
 - j. Schedule Inclement Weather impacts and resulting Mud impacts (if any) into the CPM Baseline Project Schedule (BPS), and for the requirement for time extension requests for unusually severe weather.
2. Provide projected Construction Schedule for entire Work and revise periodically.
3. Provide separate sub-schedule, showing all submittal information and the time frames in which they are to be submitted, that include the following:
 - a. Coordination Drawings.
 - b. Product Data.
 - c. Shop Drawings.
 - d. Samples.
 - e. Quality Assurance/Control Submittals.
 - f. Closeout Submittals.
4. Provide sub-schedules to define critical portions of entire schedule.

B. Related Sections:

1. DIVISION 00 SPECIFICATION SECTIONS.
2. DIVISION 01 SPECIFICATION SECTIONS.
3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP.
4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

1.2 DEFINITIONS

- A. BPS: Baseline Project Schedule.
- B. CPM Critical Path Method: The longest continuous chain of activities through the schedule that establishes the minimum overall project duration.

CONSTRUCTION SCHEDULES

2533

- C. "Activity": A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources, including manpower, equipment or materials. Work activities shall include, but not limited to, mobilization; submittals; Architect's review of submittals; procurement; delivery;

CONSTRUCTION SCHEDULES

2533

installation and checkout of equipment or material; subcontractor's items of work and major construction activities.

1. Critical activities are activities on the critical path.
 2. Predecessor activity is an activity that must be completed before a given activity can be started.
- D. "Event": An event is the starting or ending point of an activity.
- E. "Fragnet": A detailed proposed change in time based on an activity or activities, but do not show effect to the completion date.
- F. "Milestone": A key or critical point in time for reference or measurement.
- G. "Float": Float for any activity, milestone completion date or contract completion date shall be considered a resource available to both the Owner and Contractor. Neither the Owner nor the Contractor shall have exclusive ownership of the float. Float shall be a resource to all parties, and shall be consumed by whoever utilizes it first.
- H. "Inclement Weather": TEMPERATURE, PRECIPITATION (aka Rainfall & Rain Days) or FOG. The conditions for Inclement Weather are defined herein, and valuations of Inclement Weather are listed in the Meteorological Data NOAA Chart.
- I. MSU: Monthly Schedule Updates.
- J. "Mud" (aka Mud Days): Mud is a direct result of precipitation, and for this reason Mud is treated different than precipitation. Mud, or muddy site conditions, will become a candidate for time extensions, only if the amount of precipitation exceeds that which is anticipated and considered normal "Inclement Weather" for a given month.
- K. NOAA: National Oceanic and Atmospheric Administration.
- L. NTP: Notice to Proceed.
- M. PDM: Precedence Diagram Methodology.
- N. PPS: Preliminary Project Schedule.
- O. SIS: Short Interval Schedules.
- P. "Unusually Severe Weather": more severe than the anticipated "Inclement Weather" for any given month.

1.3 SUBMITTALS

- A. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES:
1. Quality Assurance/Control Submittals:
 - a. Submit the Contractor's Construction Schedule and Submittal Sub-Schedule within 35 calendar days after the Award of Contract date, unless otherwise stated in the General Conditions.
 - b. Submit updated schedules as required by change in Work Progress.
 2. All items listed below, unless otherwise indicated, shall be submitted in triplicate:
 - a. Within seven (7) days after the Award of Contract:
 - 1) The Contractor shall provide evidence to demonstrate the competency in the use of CPM scheduling, including evidence of the use of cost-loaded Primavera CPM scheduling on projects of similar value and complexity. Upon failure of the Contractor to satisfy the Architect of its CPM scheduling competency, the Contractor shall be required to employ a qualified CPM schedule consultant who regularly performs these services and who in the opinion of the Architect possesses the capacity and qualifications required to perform CPM scheduling for this project.
 - b. Within seven (7) days after the Notice to Proceed:
 - 1) Submit the Contractor's authorized representative and their qualifications.
 - c. Within twenty-one (21) days after the Notice to Proceed:

CONSTRUCTION SCHEDULES

2533

- 1) Submit Preliminary Project Schedule (PPS)
- d. Within sixty (60) days after the Notice to Proceed:
 - 1) Submit Baseline Project Schedule (BPS).

CONSTRUCTION SCHEDULES

2533

- e. Within seventy-five (75) days after the Notice to Proceed:
 - 1) Submit cost-loaded schedule data.
- 3. Coordination Schedules:
 - a. Contractor's Monthly Schedule Updates (MSU) as needed one week prior to progress payments.
 - b. Contractor's Short Interval Schedules (SIS) as needed at the regularly scheduled weekly meetings.
- 4. Contractor's Time Extension Requests / Fragnet Submittals:
 - a. "Notice of Delay" requests within twenty-four (24) hours after a delay event, on form provided at end of this section.
 - 1) Notice of Delay Form shall be accompanied by the required COR, CCD, RFP or other documents issued by the Architect.
 - b. Fragnet Submittal Forms (in quadruplicate) within fourteen (14) days after a delay event.
 - 1) Fragnet Submittal Forms shall be accompanied by the required COR, CCD, RFP or other documents issued by the Architect.
- 5. Submittal Sub-Schedule Submittal:
 - a. Submit the Submittal Sub-Schedule within 35 calendar days after the Award of Contract date, unless otherwise stated in the General Conditions.

1.4 QUALITY ASSURANCE

- A. Qualifications:
 - 1. The Contractor shall designate, in writing, an authorized representative in its firm who shall be responsible for the preparation, revising, and updating of the cost-loaded Critical Path Method schedule (hereinafter referred to as CPM) utilizing Primavera scheduling software. The Contractor's representative shall have direct project control and complete authority to act on behalf of the Contractor in fulfilling the construction scheduling requirements set forth herein. Such authority shall not be interrupted throughout the duration of the project. The requirements for the CPM schedule are included to assure adequate planning and execution of the work and to assist the Architect and Owner in appraising the reasonableness of the proposed schedule, evaluating progress of the work and for reviewing the Progress Payment Applications.
 - 2. The Contractor must have scheduling capabilities (hardware and software, inclusive of plotter) located at the construction site, or readily accessible in a local area office. Any Consultant must have the capacity and capability of supporting the project by producing schedule-related data within two (2) days of request by the Contractor, Architect, or Owner.
- B. Regulatory Requirements:
 - 1. In accordance with Specification Section - REGULATORY REQUIREMENTS.
- C. Meetings:
 - 1. Progress Meetings: Scheduled by the Contractor on a weekly basis for the proper coordination of the work.
 - a. Minimum agenda shall be to review the work progress, and the following:
 - 1) Discuss field observations, problems, and decisions;
 - 2) Identification of any potential problems that may impede planned progress;
 - 3) Corrective measures to regain projected schedules;
 - 4) Maintenance of quality and work standards in accordance with manufacturer's warranty requirements.
 - 2. Participants (or designated representative of) invited to attend each of the above meetings shall be as follows:
 - a. Contractor.

CONSTRUCTION SCHEDULES

2533

- b. Owner.
- c. Architect.
- d. Project Inspector.
- e. Installer.

CONSTRUCTION SCHEDULES

2533

- f. Material Manufacturer(s).
- g. Subcontractors, as appropriate (including any accessory subcontractors).

PART 2 - PRODUCTS**2.1 MANUFACTURERS**

- A. Products specified are from companies listed below, or approved equivalent. These products listed herein establish the size, pattern, color range and function selected by the Architect for this Project. Manufacturers listed as acceptable alternative manufacturers must still comply with the requirements of the products listed in order to be approved as an equivalent during the Submittal Process. If the acceptable alternative manufacturers listed are not approved during the Submittal Process due to non-compliance with the contract documents, then the Contractor shall submit product specified.
 - 1. Specified product manufacturer, or approved equivalent:
 - a. PRIMAVERA "Project Planner Version 3."
- B. Products from other manufacturers not listed must submit in accordance with Specification Section - SUBSTITUTION PROCEDURES.

2.2 MATERIALS

- A. Contractor's Construction Schedule Form:
 - 1. Prepare in form of horizontal bar chart.
 - a. Provide separate horizontal-box-column for each trade or operation.
 - b. Order: Chronological order of beginning of each item of Work.
 - c. Identify each column.
 - 1) By specification section number.
 - 2) By distinct graphic delineation.
 - d. Horizontal time scale: Identify first workday of each week.
 - e. Scale and spacing to allow space for updating.
 - 2. Sheet size and type: 24" x 36", transparency.
 - 3. Content of Contractor's Construction Schedule Form.
 - a. Provide complete sequence of construction by activity.
 - b. Identify Work of separate, logically grouped activities.
 - 4. Provide diskette copies of CPM Network, as required.
 - 5. Contractor shall use "Primavera" Project Planner Version P3 for Critical Path Method (CPM) Scheduling.
 - a. The alternative is the means of providing Owner's Representative with files on CD's or DVD's (WINDOWS Formatted Disks) in a form that can be completely restored into "Primavera" without requiring the use of a Conversion Program or utilizing other software.
- B. Submittal Sub-Schedule Form:
 - 1. Prepare separate Submittal Sub-Schedule, as called for in Specification Section - SUBMITTAL PROCEDURES.

PART 3 - EXECUTION**3.1 SCHEDULES [AND PROCEDURES FOR CONSTRUCTION SCHEDULES]**

- A. Architect will review schedules and return within 10 days after receipt.
 - 1. Resubmit within 7 days after return of review copy.
- B. Updating:

CONSTRUCTION SCHEDULES

2533

1. As a condition of Application Payments (Progress Payments), the Contractor shall show all changes occurring since previous submission of updated schedules, or certify in writing that no changes have occurred. Failure to provide an updated schedule or certification could

CONSTRUCTION SCHEDULES

2533

- cause the Architect and Project Inspector to recommend that no payments by the Owner be made until the Contractor has complied with the conditions required for payments.
2. Indicate progress of each activity and show completion dates.
- C. Distribution:
1. Print copies of schedules for distribution.
 2. Distribute copies of reviewed schedules to:
 - a. Job site file.
 - b. Project Inspector.
 - c. Architect.
 - d. Sub-contractors.
 - e. Other concerned parties.
 3. Instruct recipients to report any inability to comply and provide detailed explanation with suggested remedies.
- D. General Requirements:
1. The Architect considers the project schedule requirements to be of significant importance to both the Contractor and the Owner. The development, submittal, acceptance and maintenance of the Baseline Project Schedule (BPS) and subsequent Monthly Schedule Updates (MSU) must be given high priority.
 2. Work under this section shall consist of providing a computerized, time-scaled, cost-loaded Critical Path Method (CPM) Contract Schedule using Precedence Diagram Methodology (PDM) showing in detail how the Contractor plans to execute, coordinate and generate progress billings for the work.
 3. All schedule submittals (PPS, BPS, MSU's, Fragnets, schedule revisions and recovery schedules) shall include four (4) copies of the following:
 - a. An electronic copy of the schedule on CD (Compact Disc).
 - b. A time-scaled logic diagram or a time-scaled bar chart.
 - c. A tabular report that shows early start, early finish, late start, late finish, original duration, remaining duration, total float and percentage completion appropriately organized and sorted by building, site zones, and major activity codes.
 - d. A predecessor-successor tabular report organized by building, site zones, and major activity codes.
 - e. A written narrative report describing the progress since last report, problems or delays experienced, mitigation undertaken, anticipated progress next month, and a listing of all submittals, RFIs, change directives, Owner-supplied equipment or other Owner-controlled and critical constraints affecting the Contractor's progress, or anticipated to become a critical constraint in the next month.
 - f. A listing of all significant changed, added or deleted activities, revised logic relationships, durations, descriptions, etc. (revisions for routine updates excluded).
 - g. Except for time extension requests, a cost report must be provided listing each activity and its associated cost, percentage of work accomplished, earned value to date, previous payments and amount earned for the update period. For all new or redefined activities created through updates, change orders, or for fragnet delay analyses for time extension requests, a cost report should also be provided listing each new or redefined activity and its associated cost.
 - h. A cash flow envelope report and cash flow projection diagram (S-curves) shall be submitted with the finalized, cost-loaded baseline project schedule. This report and diagram shall be based on the planned monthly progress billings expressed as a percentage of the total project cost. The report and diagram shall calculate and show two projections – one based on early starts/early finishes, and another based on late starts/late finishes. Monthly Schedule Updates (MSU) shall show actual billings plotted against early and late curves.

CONSTRUCTION SCHEDULES

2533

- i. In addition, from month-to-month, the Architect may request the Contractor provide (at no cost) the following reports or schedule plots:
 - 1) Total or free float report from least to most float.
 - 2) Plots or reports of activities grouped by subcontractors, selected trades or buildings.

CONSTRUCTION SCHEDULES

2533

- 3) Plots or reports of activities with scheduled early start in a given time frame (such as a 30- or 60-day look-ahead schedule).
 - 4) Subcontractor certifications, indicating approval of the subcontractors scheduled work, acknowledging outside factors such as manpower resources, stacking of trades, multiple mobilizations, coordination of space with other trades and the stacking of trades.
4. Contractor's Construction Schedule:
- a. The Contractor's Construction Schedule shall be the basis for evaluating the job progress and time extension requests. The responsibility for developing the construction schedule, accurately updating the schedule, and monitoring the actual progress of the work compared to the planned schedule rests solely with the Contractor.
 - 1) Failure of the Contractor to include any element of the work or any inaccuracy in the Contractor's Construction Schedule will not relieve Contractor from the responsibility for accomplishing all the work in accordance with the Contract requirements.
 - b. Progress payments may be withheld in whole or part should the Contractor fail to comply with the requirements of this section.
 - c. No separate payment will be made to the Contractor for any of the requirements of this section. All such costs shall be part of the Contractor's planned project overhead costs included in its bid.
- E. Early Completion Schedules:
1. Early completion schedules may be prohibited due to certain physical or monetary constraints imposed upon the Owner. If an early completion schedule is not prohibited, and is contemplated by the Contractor as part of its bidding strategy, it is hereby expressly understood by the Contractor that early completion schedules will only be acceptable under the condition that the schedule be reasonable and realistic, and if the Contractor certifies that it has included general conditions costs in its bid sufficient for the entire contractual time of performance. It is also understood, therefore, that no damages for delay will be recoverable if the project is prolonged beyond the early completion date, but still completed within the entire contract duration.
- F. Preliminary Project Schedule (PPS):
1. Contractor shall furnish the Architect with a PPS within twenty-one (21) days after receiving the Notice to Proceed.
 2. The PPS shall indicate a detailed plan for the work to be completed in the first ninety (90) days of the contract, including planned mobilization of plant and equipment; sequence of early operations; and procurement of materials and equipment. Work beyond first ninety (90) days shall be shown in a summary-level bar chart manner.
 - a. The PPS will be temporarily used to record and monitor the progress of the work until the Baseline Project Schedule has been completely developed and accepted. Recorded data on the Preliminary Project Schedule shall be incorporated into the Baseline Project Schedule during the first monthly update.
 3. Architect will review the PPS within seven (7) days for general conformance. Contractor shall incorporate any review comments into the preparation of the Baseline Project Schedule (BPS).
- G. Baseline Project Schedule (BPS):
1. Within sixty (60) days after the Notice to Proceed, Contractor shall submit a detailed BPS presenting an orderly and realistic plan for the completion of the entire project. The PBS shall be in full conformance with the requirements of this specification.
 - a. The project start date, completion date and the intermediate milestone dates shown in the BPS should match Contract requirements.

CONSTRUCTION SCHEDULES

2533

2. Unless otherwise approved by the Architect, no activity on the BPS shall have a duration longer than fifteen (15) days, with the exception of submittal, approval, fabrication and delivery (procurement) activities. Activity durations shall be the total number of days required to perform that activity, including consideration for normal and anticipated weather-related impacts that might prolong performance of that activity. National Oceanic and Atmospheric

CONSTRUCTION SCHEDULES

2533

- Administration (NOAA) from the nearest observing site to the project shall be the contractual basis for determining "normal" weather or departures from normal.
3. "Responsibility" codes shall be identified for each activity to indicate the responsible subcontractor. Other codes for "area," "trade" or "submittal/procurement" shall be similarly utilized to allow schedule data to be sorted and organized into separate, coherent reports or plots.
 4. The BPS shall include a separate sub-schedule for all submittal, approval and procurement activities, including owner-furnished items. Data shall include a particular specification reference, description of item of work covered, and a trade or subcontractor reference. Schedule activities that are dependent on submittal approval and/or material delivery shall not be scheduled to start earlier than the reasonably expected approval or delivery dates.
 - a. Coordinate Submittal Schedule with the list of subcontractors, Schedule of Values and the list of products as well as the Contract Construction Schedule.
 - b. Prepare the schedule in chronological order. Provide information as called for in specification section - SUBMITTAL PROCEDURES.
 - c. Distribution: Following the Architect's response to the initial submittal, print and distribute copies to the Architect, Owner, Subcontractors, and other parties required to comply with submittal dates indicated.
 5. The BPS shall not show more than 10% of the total activities as critical. The BPS shall not show more than 20% of the activities with total float of 10 working days or less. The schedule shall not show any activities with negative float. Start and Finish constraints, unless identified in the contract documents, shall be minimized as much as possible to avoid logic conflicts.
 6. The BPS shall show the total cost of performing each activity. This cost shall be the total of labor, material and equipment, including general conditions, overhead and profit. The BPS shall not show a separate, individual activity for general conditions, overhead and profit. The cost of general conditions, overhead and profit shall be prorated to all cost-loaded activities. The sum of the cost for all activities shall equal the total contract value.
 7. The Contractor shall submit the proposed BPS, less cost-loaded data, within sixty (60) days after NTP. The Architect will commence a review to ascertain any lack of compliance with these specifications. Absent any notice from the Architect of such problems or compliance issues, the Contractor shall submit cost-loaded data within fifteen (15) days after the BPS was submitted, or within seventy-five (75) days of NTP.
 - a. The Architect will review the proposed BPS with cost loading for general conformance. Within thirty (30) days after the BPS is submitted, or fifteen (15) days after receipt of cost-loaded data, the Architect will accept the contract schedule or will return it with comments. If the proposed schedule is returned with comments, Contractor shall revise the schedule to incorporate the comments. The schedule shall be resubmitted for acceptance within seven (7) days. The accepted BPS shall become the Contract Construction Schedule.
- H. Monthly Schedule Updates (MSU):
1. The Contractor shall submit an MSU, each month, which accurately indicates the actual progress of the work during the prior month. The "data date" (or date through which progress is reported) shall be identified on all update reports or schedule plots. For cost-loaded schedules, the data date shall be the progress billing cut-off date (typically the 25th of the month). Schedule updates shall be submitted within five (5) days after the Architect approves the billing percentages.
 - a. The MSU shall indicate the actual start and finish dates of activities commenced or completed during the prior month. Once "as-built" start and finish dates are updated and accepted as accurate, this data shall not be changed. The MSU shall show the percentage complete for each activity.
 2. Schedule calculations shall be performed as follows. If the Contractor has proceeded out-of-sequence from the planed logic, the Contractors monthly update shall use the "retained logic"

CONSTRUCTION SCHEDULES

2533

option to perform schedule calculations. Also, when the duration(s) of schedule activities are calculated, the "contiguous duration" option shall be used. Interruptible durations are not acceptable.

CONSTRUCTION SCHEDULES

2533

3. The Contractor shall submit a narrative report along with the MSU. This narrative report shall include a description of the progress achieved that month, a description of problems or delays experienced, an analysis of the effect of approved time extensions to critical activities upon the project completion date, a discussion of current or anticipated delays, and if there is a lack of progress for which the Contractor is responsible, an explanation of mitigating actions taken or a proposal for recovery shall be provided. Further, if the schedule data is changed due to a routine updating only, no identification or discussion of such changes is required in the Monthly Schedule Update. However, if the work is re-sequenced, or if activities are added or deleted, these schedule data changes must be specifically identified, discussed and submitted. Specifically, such submittals shall be separate and apart from monthly update submittals.
4. As part of the MSU, and as part of the Architect's review of the Contractor's progress that month, a monthly schedule meeting shall be held. The monthly meeting shall be held on a mutually agreed date, but no later than ten (10) days after the submittal of the MSU. The Contractor's designated schedule representative shall attend. The intent of these monthly meetings is to address and resolve all schedule issues for the prior month. The Architect requires the MSU no later than seven (7) days prior to the monthly schedule meeting. The Architect may waive or postpone the monthly meeting(s).
5. The Architect will review the Contractor's MSU submittal. Any of the Architect's comments shall be incorporated into the next update for the Architect's verification.
- I. Sequence Changes / Recovery Schedules / Schedule Revisions:
 1. If the Architect determines that the sequence of the construction differs significantly from the Contract schedule, the Contractor shall submit a revised schedule for approval within fifteen (15) days of the Architect's request. The Contractor agrees to be bound by the Contractor's revised, re-sequenced or optimized schedules, and agrees to make no claim for such.
 2. If a Contractor falls fourteen (14) days behind schedule on milestone dates or completion dates, the Contractor will be required to prepare and submit a recovery schedule for review and acceptance. The recovery schedule shall show how the Contractor intends to reschedule the work in order to regain the time lost.
 3. If the Contractor intends to alter its planned sequence or approach to the work, the Contractor shall submit its requested schedule revisions or sequence changes to the Architect for review and comment. This submittal shall be separate from the routine MSU, and shall include a description of the reason(s) for the schedule changes, a description of the changes being made, a list of all added and deleted activities, changed logic relationships, changed activity durations or descriptions, etc. If the requested changes are reviewed and found acceptable, the schedule revision shall be made and incorporated into the project schedule prior to the next MSU.
- J. Short Interval Schedules (SIS):
 1. At the regularly scheduled weekly meetings, the Contractor shall submit to the Architect and District a SIS, which is a three-week-look-ahead schedule. The SIS shall be a three-week snapshot of the work generated from the most recent monthly update. The SIS shall include the prior week, the current week, and one week thereafter. The SIS shall contain sufficient detail to evaluate inspection requirements, and for the Contractor to submit its manpower and equipment needs.
- K. Time Extension Requests / Fragnet Submittals:
 1. The Contractor shall provide "Notice of Delay" and a Fragnet Submittal to the Architect for all claimed time extension requests, showing the impact of the delay event on the contract schedule. The Notice of Delay form and Fragnet Submittal form is included at the end of this specification section.
 2. The Fragnet Submittal shall demonstrate the time impact based on the date(s) and durations of the delay event, the status of construction at that point in time, and the affect on the scheduled sequence and progress of the work. The Fragnet Submittal shall be based on the

CONSTRUCTION SCHEDULES

2533

latest Monthly Schedule Update. The Fragnet Submittal shall also include all supporting project documentation or delay calculations that establish entitlement and quantify the delay. All required documentation shall have the Fragnet Submittal number posted in the upper-right hand corner of the page.

CONSTRUCTION SCHEDULES

2533

3. "Float" on slack time shall not be for the exclusive use or benefit of the Contractor or Owner. Extensions of time for performance will be granted only to the extent that the equitable time adjustment for the activity or activities affected exceeds the total float along the activity path at the time the delay event occurred or when an instrument of the Contract (CCD) or change order was directed.
 4. The Contractor acknowledges and agrees that mitigation of delays due to delay events may require a change to preferential sequences of work. The Contractor must propose possible mitigation plans (sequence changes and any costs) for otherwise critical path delays. The Architect will evaluate the cost of mitigation versus the cost of extended project performance. The Contractor agrees to be bound by the Contractor's revised, re-sequenced or optimized schedules, and agrees to make no claim for such.
 5. Fragnet Submittals shall be provided in quadruplicate and within fourteen (14) days after a delay event, and/or with a Change Order Request (COR) in response to a CCD, RFP, or other documents issued by the Architect. In cases where the Contractor does not provide "Notice of Delay" and/or a Fragnet Submittal for a delay event within the specified time limits, then it is mutually agreed that the delay event has no time impact on the contract completion date (or interim milestones) and no time extension is required.
 6. The Owner (or District) shall not be liable for any acceleration costs due to the Contractor's failure to comply with the contract requirements for requesting, documenting and demonstrating that a time extension is required for a delay event. The Contractor's obligation to timely perform per the schedule will not be excused until time extension requests are approved by the Architect. The BPS shall include delays for anticipated precipitation. Hence the duration for activities will not be adjusted, that is until the actual amount of precipitation days exceed the anticipated precipitation days indicated in the NOAA chart, and/or the resulting mud impacts affect the critical path of the schedule.
 7. Upon mutual agreement by the Architect and Contractor, the Monthly Schedule Updates shall include the approved time extensions (if any). No delay events that are the subject of a float consumption request or a time extension request will be incorporated into the Monthly Schedule Update until approved by the Architect.
 8. In the event of multiple delaying events, and upon approval through the time extension approval process, the delay events shall be updated into the current Monthly Schedule Update in the actual order of the delaying events.
- L. Time Extensions For Unusually Severe Weather:
1. General:
 - a. "Inclement Weather": The Owner reserves the right to update Meteorological Data included in the NOAA Chart, so that it reflects the most accurate data for the project site, site conditions and locality.
 - b. "Unusually Severe Weather" is more severe than the anticipated Inclement Weather for any given month.
 - c. NOAA, is the National Oceanic and Atmospheric Administration
 - d. "Mud" (aka Mud Days) shall be considered as muddy site conditions, which prohibit access to and around the project site, including access to the buildings. The Contractor shall understand that even if the anticipated normal precipitation were exceeded for a given month, not all Mud Days are eligible for time extensions. Only a portion of the actual Mud Days will be considered for a time extension, of which they will be the percentage of actual precipitation that are above and beyond the anticipated normal precipitation or "Inclement Weather": See "Unusually Severe Weather". Also, precipitation and Mud need to affect the activities on the critical path in order for them to impact the project schedule. If precipitation and Mud do not affect the critical path of the project, there is no effect to the project and such conditions are not eligible for time extensions. Differing site soil conditions and drainage patterns will create individual variations in how "Mud" affects the site and the progress of the Work. It is the

CONSTRUCTION SCHEDULES

2533

Contractors obligation to become aware of the site soil conditions, drainage patterns, and other elements that may affect the resulting impacts due to Mud.

2. The provisions herein specify the procedures for the determination of excusable time extensions for unusually severe weather. Inclement Weather, using the NOAA data (to be provided by the Contractor prior to first payment request and approved by the Architect -

CONSTRUCTION SCHEDULES

2533

"sample" NORMALS, MEANS AND EXTREMES data chart provided herein) and resulting Mud impacts due to anticipated precipitation, shall be scheduled into the schedule. In order for the Architect to award a time extension under this clause, the Contractor must satisfy the following conditions:

- a. The Unusual Weather clause experienced at the project site during the affected contract period must be found to be Unusually Severe Weather, that is, more severe than the anticipated Inclement Weather and Mud for any given month.
 - b. The Unusually Severe Weather clause must actually cause a delay to the completion of the Contract. The delay must be beyond the control and without the fault of negligence of the Contractor.
3. The following "sample" schedule of anticipated monthly Inclement Weather is based on National Oceanic and Atmospheric Administration (NOAA) data for the Fresno Area and the schedule provided by the Contractor for the area where the project is located shall constitute the baseline for evaluating weather-related time extensions. The Contractor progress schedule must include the effect of anticipated Inclement Weather and Mud in all weather dependent activities. Further, the Contractor's bid shall include all costs for potential disruption as a result of anticipated Inclement Weather and Mud: Disruption to the project may involve cost and time impacts. The Contractor shall be responsible for all impacts resulting from the anticipated amount of Mud and Inclement Weather shown in the actual NOAA Meteorological Data Chart in the area where the project is located. Impacts include, but are not limited to, de-watering, mucking, temporary weather protection, gravel roadways, equipment downtime, etc.
 4. Upon Notice-to-Proceed (NTP) and continuing through the Contract duration, the Contractor shall record on the Contractor Daily Reports, each occurrence of Inclement Weather and Mud, and the resulting impact to the progress of scheduled work. Each occurrence of Inclement Weather and Mud, must be verified and approved by the Inspector of Record. Inclement Weather days will be as defined by the following "sample" NOAA data and will be counted chronologically from the first to the last day of each month, with each daily incidence of "Inclement Weather" being counted as a whole day. Once the number of days of anticipated "Inclement Weather" and "Mud" are exceeded in a given month, the Contractor will become eligible for an excusable, non-compensable time extension for "Unusually Severe Weather." After anticipated "Inclement Weather" and "Mud" delays are exceeded, an "Unusually Severe Weather" delay day will occur when adverse weather prevents work on critical activities for more than fifty percent (50%) of the Contractor's scheduled work day. Upon experiencing critical path delays due to "Unusually Severe Weather," the Contractor shall seek a time extension from the Architect via the Change Order Request process. If the foregoing conditions are met, an excusable a non-compensable time extension will be granted. The Contractor will incorporate all approved Change order Request Submittals into the current Monthly Schedule Update.

THE REST OF THIS PAGE IS INTENTIONAL BLANK

CONSTRUCTION SCHEDULES

2533

M. Meteorological Data Chart 1

EXAMPLE							
Meteorological Data for Fresno, California							
Normals, Means and Extremes							
TEMPERATURE (degrees F)					PRECIPITATION***		FOG
	Normal		Extremes				
Month	Daily Max.	Daily Min.	Record Highest	Record Lowest	Mean* Number Calendar / Work	Normal (in)	Mean** Number Calendar / Work
					Days per Month		Days per Month
Jan	54.1	37.4	78	19	7.5/5.4	1.96	11.8/8.4
Feb	61.7	40.5	80	24	7.1/5.1	1.8	6.0/4.3
Mar	66.6	43.4	90	26	7.1/5.1	1.89	1.7/1.2
Apr	75.1	47.3	100	32	4.1/2.9	0.97	0.3/0.2
May	84.2	53.7	107	36	1.9/1.4	0.3	0.1/0.1
Jun	92.7	60.4	110	44	0.7/0.5	0.08	0.0/0.0
Jul	98.6	65.1	112	50	0.2/0.1	0.01	0.0/0.0
Aug	96.7	63.8	111	49	0.3/0.2	0.03	0.1/0.1
Sep	90.1	58.8	111	37	1.0/0.7	0.24	0.1/0.1
Oct	79.7	50.7	102	27	2.2/1.6	0.53	0.9/0.6
Nov	64.7	42.5	89	26	5.2/3.7	1.37	5.8/4.1
Dec	53.7	37.1	76	18	6.7/4.8	1.42	12.1/8.6
Year					44.1/31.5	10.6	38.8/27.7
Source: NOAA, National Oceanic and Atmosphere Administration.							
* Precipitation of 0.01 inches or more.							
** Heavy Fog visibility 1/4 mile or less.							
*** Refer to the term Mud, for mud impacts.							
Above data is subject to change, based upon the locality of the project. Contractor shall assemble the data and submit to The Architect for confirmation, review and modifications: Obtain data from NOAA (828) 271-4800, or the Local Weather Office. http://www.ncdc.noaa.gov							

CONSTRUCTION SCHEDULES

2533

FRAGNET SUBMITTAL FORM

Date: _____ Fragnet No.: _____
From: Name of Contractor Sheet _____ of _____
To: Darden Architects, 6790 N. West Avenue, Fresno, CA 93711 (559) 448-8051

Description of Delay: By reference to attached schedule Fragnet, the following delay occurred:

Continued on Sheets _____ of _____
Time Extension Requested: _____ work days x 1.4 = _____ calendar days.
Time Requested for Activity: _____ Time Requested for Project: _____
Related Documents: The following construction documents provide evidence of the delay event:
RFI Nos.: _____ SI Nos.: _____
CCD Nos.: _____ RFP Nos.: _____

Daily Reports Dated: _____ and attached.
Project Correspondence Dated: _____ and attached.
Other Documentation: _____

Schedule-Related Information: By reference to the attached Fragnet, provide the following:
Predecessor Activity to Fragnet: _____
Successor Activity to Fragnet: _____

Affected CPM Schedule Activities (list IDs and descriptions):

NOTICE OF DELAY FORM

Date: _____
From: Name of Contractor Sheet _____ of _____
To: Darden Architects, 6790 N. West Avenue, Fresno, CA 93711 (559) 448-8051

Description of Delay: the following delay occurred:

_____ Continued on Sheets _____ of _____

Related Documents: The following construction documents provide evidence of the delay event:
RFI Nos.: _____ SI Nos.: _____
CCD Nos.: _____ RFP Nos.: _____
Daily Reports Dated: _____ and attached.
Project Correspondence Dated: _____ and attached.
Other Documentation: _____

Affected CPM Schedule Activities (list IDs and descriptions):

CONSTRUCTION SCHEDULES

2533

END OF SECTION

FORMS AND REPORTS

2533

SECTION 01 32 26 – FORMS AND REPORTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Contractor to provide all Forms and Reports as required by the Architect for Administrative Procedures and other related items necessary to document the Project as required by the Contract Documents, including but not limited to those forms provided under this specification section.
- B. CalGREEN Forms:
 - 1. Contractor shall provide all California Green Building Standards Code Certification Worksheets and other related items necessary to document the Project as required by the AHJ, including, but not limited to, those forms provided under this specification section.
 - a. Obtain the latest documents from the California Building Standards Commission; revisions may have been made since the publication of this Project Manual.
- C. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS
 - 2. DIVISION 01 SPECIFICATION SECTIONS
 - 3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP

1.2 SUBMITTALS

- A. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES:
- B. Forms and Reports as attached to this section when required by the Architect.

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. In accordance with Specification Section - REGULATORY REQUIREMENTS.

PART 2 - PRODUCTS

NOT APPLICABLE

PART 3 - EXECUTION

3.1 SCHEDULES

- A. Listing of Architect required Forms and Reports
 - 1. 01 32 26.01-DAILY SUPERINTENDENT'S REPORT
 - 2. 01 32 26.02-SUBCONTRACTOR'S DAILY REPORT
 - 3. 01 32 26.03-SHOP DRAWING AND SUBMITTAL TRANSMITTAL
 - 4. 01 32 26.04-REQUEST FOR INFORMATION (RFI)
 - 5. 01 32 26.05-SUPPLEMENTAL INSTRUCTIONS (SI)
 - 6. 01 32 26.06-REQUEST FOR PROPOSAL (RFP)
 - 7. 01 32 26.07-CONSTRUCTION CHANGE DIRECTIVE (CCD)
 - 8. 01 32 26.08-CHANGE ORDER REQUEST REVIEW (COR)
 - a. (Review form provided by the Contractor is subject to review and comments by the Owner and Architect).
 - 9. 01 32 26.09-CHANGE ORDER (CO)

FORMS AND REPORTS

2533

- 10. 01 32 26.10-FRAGNET SUBMITTAL FORM
- 11. 01 32 26.11-APPLICATION FOR PAYMENT (AP)
- 12. 01 32 26.12-CONTRACTOR'S TESTING / INSPECTION REQUEST FORM
- 13. 01 32 26.13-CONTRACTOR'S "DEVIATION NOTICE" INSPECTION REPORT FORM

FORMS AND REPORTS

2533

14. 01 32 26.14-CONTRACTOR'S FINAL INSPECTION REQUEST FORM
 15. 01 32 26.15-CONTRACTOR'S PUNCHLIST INSPECTION REQUEST FORM
 16. 01 32 26.16-CONTRACTOR'S PUNCHLIST
 17. Periodic field reports issued by the Architect and Engineers.
 18. Contractor's Punch List Response and Correction form is required for each Punch List Review report, citing the issuing Punch List Review format number(s).
 19. Completed Contractor's Punch List and Final Inspection Reports issued by the Architect, Engineers and the Owner.
 20. See the attached Forms and Reports suitable for reproduction by the Contractor or Subcontractor.
- B. Listing of California Green Building Standards Code Certification Worksheets:
1. WORKSHEET (WS-1) BASELINE WATER USE
 2. WORKSHEET (WS-2) WATER USE REDUCTION
 3. CONSTRUCTION WASTE MANAGEMENT (CWM) PLAN
 4. CONSTRUCTION WASTE MANAGEMENT (CWM) WORKSHEET
 5. CONSTRUCTION WASTE MANAGEMENT (CWM) ACKNOWLEDGMENT

END OF SECTION

GENERAL CONTRACTOR'S
DAILY SUPERINTENDENT'S REPORT

(JOB NO./REPORT NO.)

(DATE/DAY)

(JOB NAME)

WEATHER DESCRIPTION

(WORK SHIFT) / FROM / TO

(PROJECT MANAGER/SUPERINTENDENT)

PM/ SUPT	ENGR/ TK	CARPENTERS			LABORERS		CEM FINISHERS			OPER ENGR		OTHER	TOTAL
		FMAN	JRMAN	APP	FMAN	LAB	FMAN	JRMAN	APP	JRMAN	APP		

CONCRETE: CY TODAY: LOCATION: CY TO DATE:

WORK SUMMARY:

DELAYS / WORK RELEASED BY OWNER:

CHANGE ORDERS / EXTRA WORK ORDERS:

INSTRUCTIONS FROM ARCHITECT / OWNER:

MATERIALS / EQUIP. DELIVERED TO JOB:

INSPECTIONS / TESTS PERFORMED

SAFETY / ACCIDENTS:

MAJOR EQUIP. ON SITE:

BACKSIDE OF GENERAL CONTRACTOR'S REPORT

[illegible]

MAJOR EQUIPMENT ON SITE:

BACK CHARGES:

REMARKS:

SUBCONTRACTOR'S
DAILY REPORT

PROJECT:		DATE:
SHIFT TIME	FOREMAN:	WEATHER:
WORK DESCRIPTION AND LOCATION:		

SUB-SUBCONTRACTOR	CREW SIZE	CRAFT	WORK DESCRIPTION / LOCATION

DELAYS:

CHANGE ORDERS / EXTRA WORK ORDERS:

INSTRUCTIONS RECEIVED FROM GC:	TESTS / INSPECTIONS PERFORMED:
MATERIAL / EQUIPMENT DELIVERIES:	MAJOR EQUIPMENT ON SITE:
SAFETY / ACCIDENTS:	

INTENTIONALLY LEFT BLANK

SHOP DRAWING AND SUBMITTAL TRANSMITTAL

DESCRIPTION:		SUBMITTAL NO.:	
		SPEC SECTION:	
ARCHITECT: Darden Architects 6790 N. West Ave Fresno, California 93711		PROJECT:	
CONTRACTOR:		SUPPLIER:	
Substitution: Yes: ☐ DSA Approval Req'd			
DATE RECEIVED:	NO. RECEIVED:	DATE RETURNED:	
Contractor Remarks:			
Other Required Information:		CPM Activity / Submittal Task No.:	
WARRANTY: ☐ O and M MANUALS ☐		Early Start (ES) Date:	Late Finish (LF) Date:
		Early Finish (EF) Date:	Scheduled Float Time: 0
DESIGN CONSULTANT'S REVIEW:			
TRANSMITTED BY ARCHITECT TO:		DATE RETURNED:	
DATE SENT:			
NO. SENT:		Consultants Remarks:	
ACTION:			
☐ NO EXCEPTION TAKEN RELATIVE TO DESIGN			
☐ NO EXCEPTION TAKEN WITH MODIFICATION NOTED			
☐ AMEND AS NOTED AND RESUBMIT			
☐ REJECTED AND RESUBMIT			
☐ SEE ATTACHED LETTER			
ARCHITECT'S REVIEW:		Architects Remarks:	
ACTION:			
☐ NO EXCEPTION TAKEN RELATIVE TO DESIGN			
☐ NO EXCEPTION TAKEN WITH MODIFICATION NOTED			
☐ AMEND AS NOTED AND RESUBMIT			
☐ REJECTED AND RESUBMIT			
Approved Substitution ☐			
COPIES TO:		DATE RETURNED:	
Contractor:	Owner:	Inspector:	File: Other:

INTENTIONALLY LEFT BLANK



6790 N. West Avenue
Fresno, California 93711
Tel: 559.448.8051
Fax: 559.446.1765
www.dardenarchitects.com

REQUEST FOR INFORMATION

RFI No.:

To: Darden Architects
6790 N. West Ave
Fresno, California 93711

Date:
Respond By:

Attn:
DSA/HCAI Review **Yes** **No** **Apprd**
Required ☐ ☐ ☐

Architect Project No.
Project:

INFORMATION REQUESTED:

Cost Impact: _____ Signature: _____
Schedule Impact: _____ Days _____ Pages Attached: _____
Trade/Contractor: _____ Schedule Task No/Item: _____

The Work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in the Contract Sum or Contract Time. Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change in the Contract Sum or Contract Time.

If the Contractor considers that this supplemental instruction requires a change in the Contract Sum or Contract Time, the Contractor shall not proceed with this Work and shall promptly submit an itemized proposal to the Architect for doing this work. If your proposal is found to be satisfactory and in order, this supplemental instruction will be superseded by a Construction Change Directive.

Referred To: _____ **Referred Date:** _____ **Return Date:** _____

SUPPLEMENTAL INSTRUCTIONS:

Consultant : _____ Architect _____
Date: _____ Date _____

Copy: ☐ Owner ☐ Inspector ☐ Testing Lab ☐ Structural ☐ Mech. ☐ Elec ☐ File ☐ Other Pages Attached: _____

INTENTIONALLY LEFT BLANK



SUPPLEMENTAL INSTRUCTIONS

PROJECT:

SUPPL. INST. NO.:

DATE OF ISSUANCE:

OWNER:

CONTRACT DATE:

NOTICE TO PROCEED:

CONTRACTOR:

Architect Project No.:
DSA Appl. No.:
DSA File No.:
OPSC Appl. No.:
HCAI No.:

The Work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in the Contract Sum or Contract Time. Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change in the Contract Sum or Contract Time.

If the Contractor considers that this supplemental instruction requires a change in the Contract Sum or Contract Time, the Contractor shall not proceed with this Work and shall promptly submit an itemized proposal to the Architect for doing this work. If your proposal is found to be satisfactory and in order, this supplemental instruction will be superseded by a Construction Change Directive.

Description:

Trade/Contractor:
Attachments:

Schedule Task No/Item:

Darden Architects, Inc.

Issued By:

Architect

☐ OWNER ☐ CONTRACTOR ☐ INSPECTOR ☐ TESTING LAB ☐ STRUCTURAL ☐ MECHANICAL ☐ ELECTRICAL ☐ OTHER

INTENTIONALLY LEFT BLANK



6790 N. West Avenue
Fresno, California 93711
Tel: 559.448.8051
Fax: 559.446.1765
www.dardenarchitects.com

REQUEST FOR PROPOSAL

PROJECT:	REQUEST FOR PROPOSAL NO.:
OWNER:	DATE OF ISSUANCE:
CONTRACTOR:	CONTRACT DATE:
	NOTICE TO PROCEED:
	Architect Project No.:
	DSA Appl. No.:
	DSA File No.:
	OPSC Appl. No.:
	HCAI No.:

Please submit an itemized proposal for change in the Contract Sum and Contract Time for proposed modifications to the Contract Documents described herein. Submit proposal promptly or notify the Architect in writing of the date on which you anticipate submitting your proposal.

This is not a Change Order, Construction Change Directive, or a direction to proceed with the Work described in the proposed modifications.

Description:

Attachments

Darden Architects, Inc.

ISSUED BY:

Architect					
☐ OWNER	☐ CONTRACTOR	☐ ARCHITECT	☐ CONSULTANT	☐ INSPECTOR	☐ OTHER

INTENTIONALLY LEFT BLANK



CONSTRUCTION CHANGE DIRECTIVE

PROJECT:

DIRECTIVE NO.:

DATE OF ISSUANCE:

OWNER:

CONTRACT DATE:

NOTICE TO PROCEED:

CONTRACTOR:

Architect Project No.:
DSA Appl. No.:
DSA File No.:
OPSC Appl. No.:
HCAI No.:

You are hereby directed to make the following change(s) in this Contract:

CONTRACT ADJUSTMENT

1. The proposed basis of adjustment to the Contract Sum or Guaranteed Maximum Price is:

- ☐ Lump Sum
- ☐ Unit Price of
- ☐ As provided for in General Conditions and the Supplemental Conditions of the contract.
- ☐ As Follows:

2. The Contract Time is proposed to (be adjusted) . The proposed adjustment, if any, is increase of days)

When signed by the Owner and Architect and received by the Contractor, this document becomes effective IMMEDIATELY as a Construction Change Directive (CCD), and the Contractor shall proceed with the change(s) described above.

Signature by the Contractor indicates the Contractor's agreement with the proposed adjustments in Contract Sum and Contract Time set forth in this Construction Change Directive.

ARCHITECT

OWNER

CONTRACTOR

Darden Architects
6790 N. West Ave
Fresno, California 93711

By:

By:

By:

Date:

Date:

Date:

☐ OWNER ☐ CONTRACTOR ☐ ARCHITECT ☐ CONSULTANT ☐ INSPECTOR ☐ OTHER

INTENTIONALLY LEFT BLANK



6790 N. West Ave	
Fresno, California 93711	
Tel:	559.448.8051
Fax:	559.446.1765

www.dardenarchitects.com

CHANGE ORDER REQUEST REVIEW

PROJECT: _____ **CHANGE ORDER REQUEST NO.:** _____

DATE OF ISSUANCE: _____

OWNER: _____

CONTRACTOR: _____

Architect Project No.:
DSA Appl. No.:
DSA File No.:
OPSC Appl. No.:
HCAI No.:

DESCRIPTION OF PROPOSED CHANGE:

Requested By: _____

Scope: _____

Necessary for: _____

DESIGN CONSULTANT'S REVIEW:

Date Sent:
Referred To:
Date Returned:

ACTION:

Consultants Remarks

- ☐ NO EXCEPTION TAKEN RELATIVE TO COST
☐ NO EXCEPTION TAKEN RELATIVE TO TIME
☐ AMEND AS NOTED AND RESUBMIT
☐ REJECTED

ARCHITECT'S REVIEW:

Date Returned:

ACTION:

Architects Remarks:

- ☐ NO EXCEPTION TAKEN RELATIVE TO COST
☐ NO EXCEPTION TAKEN RELATIVE TO TIME
☐ AMEND AS NOTED AND RESUBMIT
☐ REJECTED

Attachments: _____

REVIEWED:

Darden Architects
6790 N. West Ave
Fresno, California 93711

APPROVED:

Darden Architects : _____ **Date :** _____

Owner : _____ **Date :** _____

The Architect is hereby directed to instruct the Contractor to make the above changes in the Project and to include these changes in a subsequent Change Order:

☐ OWNER ☐ CONTRACTOR ☐ INSPECTOR ☐ STRUCTURAL ☐ MECHANICAL ☐ ELECTRICAL ☐ OTHER

CHANGE ORDER REQUEST- BREAKDOWN WORKSHEET

WORK DELETED:

Contractor			
Materials	\$0.00		
Equipment	\$0.00		
Labor	\$0.00		
Material, Equipment, & Labor	\$0.00		
TOTAL:			\$0.00

ADDITIONAL WORK PERFORMED BY SUB-CONTRACTOR

Sub-Contractor			
Materials	\$0.00		
Equipment	\$0.00		
Labor	\$0.00		
Material, Equipment, & Labor	\$0.00		
Overhead	\$0.00		
Profit	\$0.00		
Sub Total:		\$0.00	

Contractor			
Overhead		\$0.00	
Profit		\$0.00	
TOTAL:			\$0.00

ADDITIONAL WORK PERFORMED BY CONTRACTOR

Contractor			
Materials	\$0.00		
Equipment	\$0.00		
Labor	\$0.00		
Material, Equipment, & Labor	\$0.00		
Overhead	\$0.00		
Profit	\$0.00		
TOTAL:			\$0.00

TOTAL COST:	\$0.00
-------------	--------

TOTAL COST:	\$0.00
-------------	--------

TOTAL DAYS:	0
-------------	---

ARCHITECTURAL ADMINISTRATIVE FEES:

Proposal Request Administration	\$0.00
Construction Administration	\$0.00
TOTAL:	\$0.00
DSA Fees:	\$0.00



CHANGE ORDER

PROJECT:	CHANGE ORDER NO.:
OWNER:	DATE OF ISSUANCE:
CONTRACTOR:	CONTRACT DATE:
	NOTICE TO PROCEED:
	Architect Project No.:
	DSA Appl. No.:
	DSA File No.:
	OPSC Appl. No.:
	HCAI No.:

The Contract is changed as follows:

Description:

It is mutually agreed that the affixed signature to this Change Order is evidence that all compensation with respects to the changes defined herein have been satisfied with the execution of this document. Furthermore, no additional compensation either monetarily or via time extension to this contract will be sought in respect to this Change Order.

The Original Contract Sum and Contract Completion Date:		
Net change (Contract Sum and Contract Time) by previous Change Orders:		days
Contract Sum and Contract Completion Date prior to this Change Order:		
Contract Sum and Contract Time (increased or decreased) by this Change Order:		days
New Contract Sum and Contract Completion Date including this Change Order:		

CONTRACTOR	ARCHITECT	OWNER
	Darden Architects	
	6790 N. West Ave	
	Fresno, California 93711	
By:	By:	By:
Date:	Date:	Date:

☐ OWNER ☐ CONTRACTOR ☐ ARCHITECT ☐ CONSULTANT ☐ INSPECTOR ☐ OTHER

INTENTIONALLY LEFT BLANK

FRAGNET SUBMITTAL FORM

Date: _____ Sheet _____ of _____

From: _____ Fragnet No.: _____

To: Darden Architects, Inc.

Description of Delay: By reference to attached schedule fragnet, the following delay occurred:

Continued on Sheets _____ of _____

Time Extension Requested: _____ wds, _____ cds.

Time Requested for Activity: _____ Time Requested for Project: _____

Related Documents: The following construction documents provide evidence of the delay event:

RFI Nos.: _____ SI Nos.: _____

CCD Nos: _____ RFP Nos.: _____

Daily Reports Dated: _____ and attached.

Project Correspondence Dated: _____ and attached.

Other Documentation: _____

Schedule-Related Information: By reference to the attached fragnet, provide the following:

Predecessor Activity to Fragnet:

Successor Activity to Fragnet:

Affected CPM Schedule Activities (list IDs and descriptions):

New CPM Schedule Activities (list IDs and descriptions):

END OF FORM

INTENTIONALLY LEFT BLANK

APPLICATION FOR PAYMENT

To:
DARDEN ARCHITECTS, INC.
6790 N. West Avenue
Fresno, CA 93711

Project:

Pay Application No.: _____

Distribution to:

Bid Package No. _____

Application Date: _____

Owner: _____

Architect: _____

Contractor: _____

Const Mgr.: _____

Inspector: _____

FROM _____

Prime Contractor

Period Ending: _____

Address: _____

Phone: _____

CONTRACTOR'S APPLICATION FOR PAYMENT

CHANGE ORDER SUMMARY

APPROVED CHANGE ORDERS:

[illegible]

TOTALS

Net change by Change Order	\$
----------------------------	----

The undersigned Contractor certifies that in the best of his knowledge, information, and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the contractor for work for which previous Certificates for Payment were issued and payment received from the Owner and that current payment show herein is now due.

Contractor:

DATE:

The present status of the account for this Contract is as follows:

ORIGINAL CONTRACT SUM \$

Net Change by Change Orders	\$
-----------------------------	----

CONTRACT SUM TO DATE: \$

TOTAL COMPLETE & STORED TO DATE: \$

RETAINAGE: _____%: \$

TOTAL EARNED LESS RETAINAGE: \$

LESS STOP NOTICE(S): \$

LESS PREVIOUS PAYMENT: \$

CURRENT PAYMENT DUE: \$ _____

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

CONTRACTOR:

DATE:

CONSTRUCTION MANAGER:

DATE: _____

INSPECTOR:

DATE:

ARCHITECT:

DATE: _____

INTENTIONALLY LEFT BLANK

CONTRACTOR'S TESTING / INSPECTION REQUEST FORM

PROJECT: _____

DATE RECEIVED: _____ (by Inspector)

TIME RECEIVED: _____ (by Inspector)

BUILDING: _____

SITE/OFFSITE: _____

CONSTRUCTION PHASE (1, 2, 3, etc.): _____

SPECIFICATION SECTION (No.): _____

PLAN SHEET AND DETAIL: _____

SCOPE OF WORK: _____

(concrete, electrical, etc.)

INSPECTION REQUESTED BY: _____

(contractor name)

LOCATION (bldg., room, floor, wall, ceiling, etc.) _____

TYPE OF INSPECTION (concrete, framing, welding, masonry, electrical, etc.) _____

INSPECTION REQUESTED ON: _____ at _____ am/pm

(date) (time)

Note 1: A Minimum Notice of 48 hours is Required to be Received by the Inspection Officer Prior to the Time the Testing / Inspection is Requested to Begin.

PRINT NAME AND TITLE OF PERSON REQUESTING INSPECTION

SIGNATURE OF PERSON REQUESTING INSPECTION

Note 2: Contractor Must Accompany Inspector on Inspection, if Requested.

PASSED: _____ FAILED: _____

Note 3: See Attached Sheet for Explanation if Inspection Failed. Re-inspection Required.

INSPECTOR SIGNATURE: _____ Date: _____

INTENTIONALLY LEFT BLANK

CONTRACTOR'S "DEVIATION NOTICE" INSPECTION REQUEST FORM

PROJECT: _____
DATE RECEIVED: _____ (by Inspector)
TIME RECEIVED: _____ (by Inspector)

DEVIATION NOTICE(S) (No.): _____

BUILDING: _____
SITE/OFFSITE: _____
CONSTRUCTION PHASE (1, 2, 3, etc.): _____
SPECIFICATION SECTION (No.): _____
SCOPE OF WORK: _____
(concrete, electrical, etc.)

INSPECTION REQUESTED BY: _____
(contractor company name)

LOCATION(S) OF WORK FOR INSPECTION (be specific- bldg.(s), room(s), etc.)

INSPECTION REQUESTED ON: _____ at _____ am/pm
(date) (time)

Note 1: A Minimum Notice of 48 hours is Required to be Received by the Inspection Officer Prior to the Time the "Deviation Notice" Inspection is Requested to Begin.

PRINT NAME OF PERSON REQUESTING DEVIATION NOTICE INSPECTION

SIGNATURE OF PERSON REQUESTING DEVIATION NOTICE INSPECTION

Note 2: Contractor Must Accompany Project Inspector on "Deviation Notice" Inspection, if Requested.

Note 3: See Attached "Deviation Notice" for Inspector's Comments and/or Date Completed.

PASSED: _____ FAILED: _____

PROJECT INSPECTOR SIGNATURE: _____
DATE: _____

INTENTIONALLY LEFT BLANK

CONTRACTOR'S FINAL INSPECTION REQUEST FORM

PROJECT: _____

DATE RECEIVED: _____ (by Inspector)

TIME RECEIVED: _____ (by Inspector)

BUILDING: _____

SITE/OFFSITE: _____

CONSTRUCTION PHASE (1, 2, 3, etc.): _____

SPECIFICATION SECTION (No.): _____

SCOPE OF WORK: _____
(concrete, electrical, etc.)

INSPECTION REQUESTED BY: _____
(contractor company name)

INSPECTION REQUESTED ON: _____ at _____ am/pm
(date) (time)

Note 1: A Minimum Notice of 48 hours is Required to be Received by the Inspection Officer Prior to the Time the Final Inspection is Requested to Begin. Contractor to be Notified by the Construction Manager in Regards to the Actual Date and Time of the Final Inspection.

PRINT NAME AND TITLE OF PERSON REQUESTING FINAL INSPECTION

SIGNATURE OF PERSON REQUESTING FINAL INSPECTION

Note 2: Contractor Must Accompany Project Inspector, Architect and/or Engineer(s) on Final Inspection, if Requested.

PASSED: _____ FAILED: _____

Note 3: If the Final Inspection Fails Re-Inspection is Required. See Attached Sheet for Comment(s).

PROJECT INSPECTOR SIGNATURE: _____
DATE: _____

PROJECT ARCHITECT SIGNATURE: _____
DATE: _____

INTENTIONALLY LEFT BLANK

CONTRACTOR'S PUNCHLIST INSPECTION REQUEST FORM

PROJECT: _____

DATE RECEIVED: _____ (by Inspector)

TIME RECEIVED: _____ (by Inspector)

BUILDING: _____

SITE/OFFSITE: _____

CONSTRUCTION PHASE (1, 2, 3, etc.): _____

SPECIFICATION SECTION (No.): _____

SCOPE OF WORK: _____

(concrete, electrical, etc.)

INSPECTION REQUESTED BY: _____

(contractor company name)

LOCATION(S) OF WORK FOR INSPECTION: (be specific- bldg.(s), room(s), etc.)

DESCRIPTION OF WORK TO BE INSPECTED: (item number(s) from punchlist)

INSPECTION REQUESTED ON: _____ at _____ am/pm

(date) (time)

Note 1: A Minimum Notice of 48 hours is Required to be Received by the Inspection Officer Prior to the Time the Punchlist Inspection is Requested to Begin.

PRINT NAME OF PERSON REQUESTING PUNCHLIST INSPECTION

SIGNATURE OF PERSON REQUESTING PUNCHLIST INSPECTION

Note 2: Contractor Must Accompany Project Inspector on Punchlist Inspection, if Requested. Items Must Have Already Been Signed Off by Contractor.

Note 3: Attached Sheet for Contractor’s Signoff and/or Inspector’s Comments and/or Date Completed for the Specific Punchlist Items Noted Above.

Note 4: This Inspection is NOT A FINAL INSPECTION but Only an Acknowledgement That a Particular Item(s) is/are completed.

INTENTIONALLY LEFT BLANK

PROJECT: _____ - CONTRACTOR'S PUNCHLIST
CONTRACTOR NAME: _____ Page _____ of _____

[illegible]

INTENTIONALLY LEFT BLANK

ALTERATION PROJECT PROCEDURES

2533

SECTION 01 35 16 – ALTERATION PROJECT PROCEDURES**PART 1 - GENERAL****1.1 SUMMARY**

- A. Provide all material, labor, equipment and services necessary to completely install all materials, accessories and other related items necessary to complete the Project as indicated by the Contract Documents.
- B. Coordinate the work of trades and schedule elements of alterations and renovation work by procedures and methods to expedite completion of the work.
- C. In addition to demolition specifically shown, cut, move or remove items as necessary to provide access or to allow alterations and new work to proceed. Include such items as:
 - 1. Repair or removal of hazardous or unsanitary conditions.
 - 2. Removal of abandoned items and items serving no useful purpose, such as abandoned piping, conduit and wiring.
 - 3. Removal of unsuitable or extraneous materials not marked for salvage, such as abandoned furnishings and equipment, and debris such as rotted wood, rusted metals and deteriorated concrete.
 - 4. Cleaning of surfaces, and removal of surface finishes as needed to install new work and finishes.
- D. Patch, repair and refinish existing items to remain, to the specified condition for each material, with a smooth and clean transition to adjacent new items of construction.
- E. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS.
 - 2. DIVISION 01 SPECIFICATION SECTIONS.
 - 3. 02 41 19 SELECTIVE DEMOLITION
 - 4. 31 11 00 SITE CLEARING
 - 5. 04 22 00 CONCRETE MASONRY UNITS
 - 6. 08 11 00 METAL DOORS AND FRAMES
 - 7. 09 24 00 CEMENT PLASTER
 - 8. 09 29 00 GYPSUM BOARD
 - 9. 09 50 00 ACOUSTICAL CEILINGS
 - 10. 09 91 00 PAINTING
 - 11. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

PART 2 - PRODUCTS**2.1 MATERIALS (Products for Patching, Extending and Matching):**

- A. Provide same products or types of construction as that in existing structure as needed to patch, extend or match existing.
- B. The Contract Documents will not typically define products or standards of workmanship present in existing construction; determine products by inspection and necessary testing, and determine quality of workmanship by using existing as a sample for comparison.
- C. The presence of a product, finish, or type of construction requires that patching, extending or matching shall be performed as necessary to make work complete and consistent with identical standards of quality.

ALTERATION PROJECT PROCEDURES

2533

PART 3 - EXECUTION**3.1 REPAIR / RESTORATION**

- A. Patch and extend existing construction using skilled workers capable of matching existing quality of workmanship. Quality of patched or extended work shall be not less than that specified for new work.
- B. Damaged Surfaces:
 - 1. Patch and replace portions of existing finished surfaces that are found to be damaged, lifted, discolored, or show other imperfections, with matching material.
 - a. Provide adequate support of substrate prior to patching the finish.
 - b. Refinish patched portions of painted or coated surfaces in a manner to produce uniform color and texture over the entire surface.
 - c. When existing surface finish cannot be matched, refinish entire surface to nearest intersections.
- C. Transition from existing to new work:
 - 1. When new work abuts or finishes flush with existing work, make a smooth and clean transition. Patched work shall match existing adjacent work in texture and appearance so that the patch of transition is invisible at a distance of five feet.
 - 2. When finished surfaces are cut in such a way that a smooth and clean transition with the new work is not possible, notify the Architect. Terminate existing surface in a neat manner along a straight line at a natural line of division, and provide trim appropriate to finished surface, or as otherwise directed by the Architect.

3.2 ADJUSTING

- A. Test and adjust controls and safeties. Replace damaged or malfunctioning controls and equipment.
- B. Where partitions are removed, patch floors, walls, and ceilings with finish materials to match existing.
 - 1. Where removal of partitions results in adjacent spaces becoming one, re-work floors and ceilings to provide smooth and clean planes without breaks, steps, or bulkheads.
 - 2. Where extreme change of plane of one inch or more occurs, request instruction from the Architect as to method of making transition.
- C. Trim and refinish existing doors as necessary to clear new floor finishes.

3.3 CLEANING

- A. Clean in accordance with Specification Section - PROJECT CLOSEOUT.
 - 1. Leave area level and free of any ruts or debris. Appearance of earth surface shall be equal to or better than adjacent undisturbed surfaces.
 - 2. Clean any soiled surfaces immediately.
 - 3. Finish shall be clean and ready for the application of any additional finishes.
- B. Perform periodic and final cleaning as specified in Specification Section - PROJECT CLOSEOUT.
 - 1. Clean Owner-occupied areas daily.
 - 2. Clean spillage, over spray, and heavy collection of dust in Owner-occupied areas immediately.
- C. At completion of work of each trade, clean area and make surfaces ready for work of successive trades.
- D. At completion of alteration work in each area, provide final cleaning and return space to a condition suitable for use by the Owner.

ALTERATION PROJECT PROCEDURES

2533

- E. Contractor shall remove all materials and items as indicated on drawings or otherwise required. Remove all trash or debris as it accumulates and legally dispose of it off site at no additional cost to the Owner.

ALTERATION PROJECT PROCEDURES

2533

3.4 PROTECTION

- A. Protection from weather:
 - 1. Protect newly installed work from freezing for 24 hours after erection, installation or application.
- B. Protection from traffic:
 - 1. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and installer, which ensures the work of this section being without damage or deterioration until the time of Substantial Completion.
 - 2. Immediately after cleaning, neatly apply four (4) mil thick, minimum, polyethylene film over finished surfaces at traffic areas. Fasten film firmly to surfaces without visually marring those surfaces.
- C. Assign the work of moving, removal, cutting and patching, to trades qualified to perform the work in a manner to minimize the possibility of damage to each type of work, and provide means of returning surfaces to appearance of new work.
- D. Perform cutting and removal work with minimal disruption and manner to avoid damage to adjacent work.
- E. Cut finish surfaces such as masonry, tile, plaster or metals, by methods which terminate surfaces in a straight line at a natural point of division.
- F. Perform cutting and patching as specified in Specification Section - CUTTING AND PATCHING.
- G. Protect existing finishes, equipment, and adjacent construction from damage.
 - 1. Protect existing and new work from weather and extremes of temperature.
 - 2. Maintain existing interior work above 60 degrees F.
 - 3. Provide weather protection, waterproofing, heat and humidity control as needed to prevent damage to remaining work and to new work.

3.5 SCHEDULES

- A. Schedule work in the sequences specified in Specification Section - SUMMARY OF WORK, if applicable.

END OF SECTION

REGULATORY REQUIREMENTS

2533

SECTION 01 41 00 – REGULATORY REQUIREMENTS**PART 1 - GENERAL****1.1 SUMMARY**

- A. Provide all material, labor, equipment and services necessary to completely install all materials, accessories and other related items necessary to complete the Project as indicated by the Contract Documents.
- B. Section 4-317 (c), Part 1, Title 24, CCR, requires the following:
 - 1. "The intent of these drawings and specifications is that the work of the alteration, rehabilitation or reconstruction is to be in accordance with Title 24, California Code of Regulations. Should any existing conditions such as deterioration of non-complying construction be discovered which is not covered by DSA approved documents wherein the finished work will not comply with Title 24, California Code of Regulations, a construction change document, or a separate set of plans and specifications, detailing and specifying the required repair work shall be submitted to and approved by DSA before proceeding with the repair work."
- C. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS.
 - 2. DIVISION 01 SPECIFICATION SECTIONS.
 - 3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP.
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

1.2 REFERENCES

- A. References to standards, codes, specifications, recommendations and regulations, refer to the latest edition or printing in effect at the date of issue shown in the Documents unless another date is implied by the suffix number of the Standards.
- B. Applicable portions of the Standards listed that are not in conflict with the Contract Documents shall be construed as specification for this work.
- C. General Standards:
 - 1. AFPA: American Forest and Paper Association
 - 2. ANSI: American National Standards Institute
 - 3. ASTM: American Society for Testing and Materials
 - 4. CAL/OSHA: California Occupational Safety and Health Administration
 - a. State of California Construction Safety Orders
 - 5. CARB: California Air Resources Board
 - 6. CS: Commercial Standards of the US Department of Commerce
 - 7. EPA: Environmental Protection Agency
 - 8. FMG: Factory Mutual Group
 - 9. NIBS: National Institute of Building Sciences
 - 10. NIST: National Institute of Standards and Technology
 - 11. NFPA: National Fire Protection Association
 - 12. OSHA: Occupational Safety and Health Administration
 - a. Federal Construction Safety Orders
 - 13. PS: Product Standards of the US Department of Commerce
 - 14. SS-CDOT: "Standard Specification":
 - a. State of California Department of Transportation (CalTrans)
 - 15. UL: Underwriters Laboratory Incorporated

REGULATORY REQUIREMENTS

2533

16. WH: Warnock Hersey

1.3 SUBMITTALS

A. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES:

REGULATORY REQUIREMENTS

2533

B. Quality Assurance/Control Submittals:

1. Certificates:

- a. Submit three (3) copies of certificates written on the Contractor's Letterhead indicating that the required codes shall be present at the Job Site.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements:

1. All codes, laws, ordinances, rules, regulations, orders and other legal requirements of City, County, State, Federal and other public authorities which bear on performances of Work shall be applicable to Project. Latest editions shall be applicable unless specified otherwise.
2. Relationship between Applicable Codes and Contract Documents. The Contract Documents have been developed with the intent to conform to the applicable codes. Nothing within the Contract Documents shall be construed to permit Work not conforming to the applicable codes.

B. Major Governing Codes And Regulations:

1. General: All work shall comply with the requirements of the following codes and regulations. Special reference in other Sections of the Specifications to a specific code will be by use of the abbreviation given in front of the Code.
 - a. Freestanding equipment (if applicable) shall be provided and installed in accordance with the seismic requirements where the Project is located.
2. NOTE: * -Indicates that a copy of these codes shall be at the job site at all times.
3. AUTHORITY HAVING JURISDICTION:
 - a. AHJ: Authority Having Jurisdiction
4. FEDERAL LAW:
 - a. ADA: Americans with Disabilities Act
5. CALIFORNIA CODE OF REGULATIONS (Previously known as the California Administrative Codes)
 - a. CCR-T5: California Code of Regulations, Title 5-Education.
 - b. CCR-T8: California Code of Regulations, Title 8-Industrial Safety
 - 1) Contains the California Elevator Safety Code.
 - c. CCR-T19: California Code of Regulations, Title 19-Public Safety.
 - d. CCR-T21: California Code of Regulations, Title 21-Public Works.
 - e. *CCR-T24: California Code of Regulations, Title 24, Part 1-California Administrative Code 2022.
6. CALIFORNIA BUILDING, ELECTRICAL, MECHANICAL, PLUMBING, ENERGY, FIRE, and REFERENCED CODES
 - a. *CBC: California Building Code 2022 California Code of Regulations, Title 24-Part 2, Volumes 1 and 2, CCR-T24, based on the 2021 edition of the IBC (International Building Code), with the latest California State Amendments.
 - b. *CEC: California Electrical Code 2022, California Code of Regulations, Title 24-Part 3, CCR-T24, based on the 2020 edition of the NEC (National Electrical Code), with the latest California State Amendments.
 - c. *CMC: California Mechanical Code 2022, California Code of Regulations, Title 24, Part 4, CCR-T24, based on the 2021 edition of the UMC (Uniform Mechanical Code) by IAPMO, with the latest California State Amendments.
 - d. *CPC: California Plumbing Code 2022, California Code of Regulations, Title 24, Part 5, CCR-T24, based on the 2021 edition of the UPC (Uniform Plumbing Code) by IAPMO, with the latest California State Amendments.

REGULATORY REQUIREMENTS

2533

- e. *CEnC: California Energy Code 2022, California Code of Regulations, Title 24, Part 6, CCR-T24, and the latest California State Amendments.
- f. *CFC: California Fire Code 2022, California Code of Regulations, Title 24, Part 9, CCR-T24, based on the 2021 edition of the IFC (International Fire Code), with the latest California State Amendments.

REGULATORY REQUIREMENTS

2533

- 1) In addition to all other Chapters in the CFC to be followed, attention is specifically called out to comply with Chapter 33 - "Fire Safety During Construction and Demolition".
- g. CEBC: California Existing Building Code 2022, California Code of Regulations, Title 24, Part 10, CCR-T24.
- h. CGBSC: California Green Building Standards Code 2022, California Code of Regulations, Title 24-Part 11, CCR-T24 (CALGreen).
- i. CRSC: California Referenced Standard Code 2022, Title 24, Part 12, CCR-T24, with the latest California State Amendments.
7. DSA: DIVISION OF THE STATE ARCHITECT:
 - a. DSA: Regulations of the Division of the State Architect of the State of California:
 - 1) ACS: Access Compliance Section
 - 2) SSS: Structural Safety Section
 - 3) FLS: Fire and Life Safety Section
 - 4) IR: Interpretation of Regulations.
8. OTHER STATE AGENCIES:
 - a. AQMCD: Air Quality Management Control District in the area where the project is located.
 - b. RWQCB: Regional Water Quality Control Board in the area where the project is located.
- C. Governing Authority:
 1. DSA: Division of the State Architect.
 - a. The provisions of the State of California, Statutes of 1933, Chapter 59, Safety of Construction of Public School Buildings Act, and the latest regulation based thereon, of the Division of the State Architect of the State of California, shall be the governing authority and shall take precedence over other applicable codes.
 - b. The following shall be stamped and signed by the A/E on Record or Delegated Design Professional per CBC, Part 1, Section 4-317 (h), and the following:
 - 1) Addenda or Bulletins per Sec. 4-338(b): All addenda or bulletins shall be signed and approved by the Division of State Architect.
 - 2) Construction Changes per Sec. 4-338(c): All Construction Changes related to structural items, fire safety issues, life safety issues and accessibility compliance issues shall be reviewed and approved by the appropriate Division of the State Architect.
 - 3) Substitutions (per DSA) shall be treated like Addenda, or Construction Changes per Sec. 4-338(c), and IR A-6: All substitution requests and substitutions related to structural items, fire safety issues, life safety issues and accessibility compliance issues shall be reviewed and approved by the appropriate Division of the State Architect prior to fabrication and installation.

PART 2 - PRODUCTS
NOT APPLICABLE

PART 3 - EXECUTION
NOT APPLICABLE

END OF SECTION

REFERENCES

2533

SECTION 01 42 00 – REFERENCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide all material, labor, equipment and services necessary to completely install all materials, accessories and other related items necessary to complete the Project as indicated by the Contract Documents.
 - 1. The abbreviations, symbols and work meanings not defined in the Contract Documents are in accordance with building industry usage and convention. Questions which arise as to "meaning," or intent shall be referred to the Architect prior to bidding for interpretation.
 - 2. Refer to drawings for additional abbreviations and symbols.
 - 3. Refer to GENERAL and SPECIAL or SUPPLEMENTAL CONDITIONS and specific specification Sections for additional definitions.
- B. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS.
 - 2. DIVISION 01 SPECIFICATION SECTIONS.
 - 3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP.
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

1.2 DEFINITIONS

- A. EXECUTE: Perform what is required to install, apply, erect and otherwise incorporate products in to this Project.
- B. FURNISH: Supply products required, deliver to Project, unload, store and install as required in location as directed by Contractor, Owner or Architect.
- C. GUARANTEE: An assurance by the seller or installer that products or Work are as represented or will be as promised in compliance with Specifications. Synonymous and interchangeable with WARRANTY.
- D. INSTALL: Incorporate into this Project.
- E. PRODUCTS: The material, equipment, fixtures and other physical substances required to execute the Project.
- F. PROVIDE: Furnish and Install into this Project.
- G. WARRANTY: An assurance by the seller or installer that products or Work are as represented or will be as promised in compliance with Specifications. Synonymous and interchangeable with GUARANTEE.

PART 2 - PRODUCTS

NOT APPLICABLE

PART 3 - EXECUTION

NOT APPLICABLE

END OF SECTION

TESTING AND INSPECTION SERVICES

2533

SECTION 01 45 23 – TESTING AND INSPECTION SERVICES**PART 1 - GENERAL****1.1 SUMMARY**

- A. This Section includes:
 - 1. One Project Inspector (Owner's Inspector), including Special and/or Assistant Inspector(s) (minimum Class 1 Rating), as required, will be employed by the Owner in accordance with the requirements of CCR-Title 24, Part 1, CALIFORNIA ADMINISTRATIVE CODE, and the latest amendments, and will be assigned to the Project.
 - a. Duties of a Project Inspector are specifically defined in CCR-Title 24, Part 1, and the latest amendments.
 - b. Special Inspections (not within the Project Inspector's abilities) shall be performed by the Testing Laboratory or other Special Inspector as approved by the Owner and DSA.
 - 1) All Special Inspections shall be approved by DSA in accordance with CCR-T24, Part 1, Chapter 4, Group 1, Article 5, Section 4-335.1.
 - 2. The Project Inspector shall be employed by the Owner and approved by the Architect, Structural Engineer, and DSA.
 - a. See the Title Page of this Project Manual for the name of this Project.
 - b. Payment of the Project Inspector will be by the Owner.
 - 3. Provide all access, facilities and information required by the Project Inspector for the Project.
- B. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS.
 - 2. DIVISION 01 SPECIFICATION SECTIONS.
 - 3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP.
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

1.2 DEFINITIONS

- A. Responsibilities of the Project Inspector:
 - 1. The Project Inspector will be required to provide inspection of the Work (including "Continuous Inspection") as required in CCR-T24, Part 1:
 - a. Educational Work: Chapter 4, Group 1, Article 6, 4-342 (b).
 - 2. The Project Inspector will report to the Owner, the Architect and DSA as required during the progress of the Work.
 - 3. The Project Inspector shall review all Pay Requests prior to submittal to the Architect.
- B. Responsibilities of the Contractor:
 - 1. Written Statement of Responsibility to the Owner and the Authority Having Jurisdiction (DSA) per CBC Chapter 17A:
 - a. Provide a written Statement of Responsibility regarding the Contractor's understanding of the special inspection requirements and identifying individuals in their firm responsible for exercising control over the conformance to the construction documents.
 - 2. Provide the Project Inspector free access to any and all parts of the Project at all times.
 - 3. Provide the Project Inspector information necessary to keep him fully informed with respect to the progress, manner and character of Work.
 - 4. Perform no Work in absence of the Project Inspector unless alternate arrangements have been made in advance and agreed to by the Owner, the Architect and DSA.
 - 5. The Owner's "Inspection of Work" by the Project Inspector shall not relieve the Contractor from any conditions of this Contract.

TESTING AND INSPECTION SERVICES

2533

1.3 SUBMITTALS

- A. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES:

TESTING AND INSPECTION SERVICES

2533

B. Quality Assurance/Control Submittals:

1. Written Statement of Responsibility to the Owner and the Authority Having Jurisdiction per CBC Chapter 17A.
2. Project Inspector's Field Reports:
 - a. Submit four (4) copies of reports.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements:

1. In accordance with Specification Section - REGULATORY REQUIREMENTS.

PART 2 - PRODUCTS

NOT APPLICABLE

PART 3 - EXECUTION

NOT APPLICABLE

END OF SECTION

TESTING LABORATORY SERVICES

2533

SECTION 01 45 29 – TESTING LABORATORY SERVICES**PART 1 - GENERAL****1.1 SUMMARY**

- A. The Owner's Testing Laboratory shall be employed by the Owner and approved by the Architect, Structural Engineer, and DSA.
 - 1. Payment of the Owner's Testing Laboratory will be by the Owner.
 - 2. The Owner shall pay for all initial testing indicated as paid for by Owner except as specified otherwise or in the schedule at the end of this section.
 - a. Cost of re-testing (due to initial failures) shall be back-charged to the Contractor, and those excess costs will be deducted from the Contract Price.
 - b. Cost of testing (due to shop fabrication or in-plant testing out of state and beyond a 75-mile radius of the Project Site) shall be back-charged to the Contractor, and those excess costs will be deducted from the Contract Price.
- B. Provide all access, facilities and information required for the testing of the various portions of the Work as required by Regulatory Agencies, Planning, Agencies, Building Agencies, and other Governmental Inspectors, the Contract Documents and the Owner.
- C. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS.
 - 2. DIVISION 01 SPECIFICATION SECTIONS.
 - 3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP.
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

1.2 DEFINITIONS

- A. Responsibility of the Testing Laboratory:
 - 1. Taking all specimens.
 - 2. Performing Tests.
 - a. The Testing Laboratory's duties shall include all tests required by the DSA 103 Form prepared at the time of DSA Approvals, and any other testing as determined by authorities or the Project Inspector during the course of the work.
 - b. Special Inspections (not within the Project Inspector's abilities) shall be performed by the Testing Laboratory or other Special Inspector as approved by the Owner and DSA.
 - 1) All Special Inspections shall be approved by DSA in accordance with CCR-T24, Part 1, Chapter 4, Group 1, Article 5, Section 4-335.
 - 3. Writing Test Reports
 - 4. Review of "Continuous Inspection" reports by the Project Inspector.
 - a. Portions of the Work requiring "Continuous Inspection" shall be performed by the Project Inspector (if qualified) and all reports will be reviewed by the Testing Laboratory.
 - 5. Distribute Test Reports to the Owner, Architect, applicable Engineer, Contractor and to DSA.
- B. Responsibilities of the Contractor:
 - 1. Contractor shall provide a Testing Schedule that is in accordance with the following:
 - a. Format of the Testing Schedule shall be in accordance with Specification Section – CONSTRUCTION SCHEDULES.
 - b. Cooperates with the Testing Laboratory's schedule of required testing.
 - c. Contractor shall coordinate Construction Schedule and Testing Schedule.
 - 1) Format of testing schedule in accordance with Specification Section – CONSTRUCTION SCHEDULES.

TESTING LABORATORY SERVICES

2533

2. Cooperation with testing laboratory:
 - a. Provide access to Work being tested.
 - b. Provide test samples as selected by testing laboratory.

TESTING LABORATORY SERVICES

2533

- c. Schedule Work so that there shall be no excessive inspection time.
 - 1) At times that an inspector is required, sufficient work shall be laid out and adequate personnel supplied so that the inspector's time shall be used to full advantage.
 - 2) If inspection costs become excessive because of poor shop or construction procedure, such excess costs will be paid for by the Owner, but deducted from the Contract Price.
- d. Inspections and tests required by regulatory agencies shall be the responsibility of and shall be paid for by the Owner unless specified otherwise.
- e. Inspections and testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.
- f. Test Reports:
 - 1) Distribute test reports and related instruction to insure all required re-testing and/or replacement of materials.
- g. Payment of Testing:
 - 1) All testing shall be paid for by the Owner.
- 3. Contractor shall be back-charged for re-testing, excessive distance from the Project Site, or extra testing required because of initial failures.

1.3 REFERENCE STANDARDS

- A. ASTM: American Society for Testing and Materials
 - 1. ASTM E329 Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction (Standard Specification for)

1.4 SUBMITTALS

- A. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES:
- B. Quality Assurance/Control Submittals:
 - 1. Test Reports:
 - a. Submit four (4) copies of testing laboratory's report.

1.5 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Testing Laboratory Qualifications:
 - a. In accordance with the latest Edition of **ASTM E329**.
- B. Regulatory Requirements and Reference Standards:
 - 1. In accordance with Specification Section - REGULATORY REQUIREMENTS, and the following:
 - a. In accordance with regulatory agencies and appropriate ASTM Standards.

PART 2 - PRODUCTS
NOT APPLICABLE**PART 3 - EXECUTION****3.1 SCHEDULES**

- A. Testing Schedule at the end of this section should be used as a guide only and it is not considered a complete list. Refer to regulatory agency requirements and specific specification section for complete testing requirements.

TESTING LABORATORY SERVICES

2533

B. TESTING SCHEDULE

1. 03 15 14 - DRILLED ANCHORS

a. Tension Tests.

1) Paid by Owner.

TESTING LABORATORY SERVICES

2533

2. 03 20 00 - REINFORCEMENT
 - a. Rebar Material per ACI 318, CBC TABLE 1705A.2.1, CBC Sections 1903A.1, 1905A, and 1910A.
 - 1) Paid by Owner
 - b. Continuous Inspection of Welds per ACI 318, CBC TABLE 1705A.2.1, CBC Sections 1903A.8, 1905A, and 1910A.
 - 1) Paid by Owner
3. 03 30 00 - CAST-IN-PLACE CONCRETE
 - a. Cement Material per ACI 318, and CBC Sections 1903A, 1905A, and 1910A.
 - 1) Paid by Owner
 - b. Aggregate Material per ACI 318.
 - 1) Paid by Owner
 - c. Concrete Mix per ACI 318. CBC Sections 1903A and 1910A.
 - 1) Paid by Owner
 - d. Concrete Strength Tests per ACI 318.
 - 1) Paid by Owner
 - e. Concrete Compression Tests per ACI 318.
 - 1) Paid by Owner
4. 04 22 00 - CONCRETE MASONRY UNITS
 - a. Grout Tests/Mortar Tests per CBC Section 2105A.3.
 - 1) Paid by Owner
 - b. Continuous Inspection of Laying Block and Block Cores per THE MASONRY SOCIETY - TMS 402 and TMS 602, as set forth in Tables 3 and 4, Level 3 requirements and Chapter 21A. Testing shall be in accordance of CBC Section 2105A.
 - 1) Paid by Owner
 - c. Concrete Masonry Unit Tests per CBC Section 2105A.6.
 - 1) Paid by Owner
5. 05 12 00 - STEEL AND FABRICATIONS
 - a. Steel Material per CBC Section 1705A.2.
 - 1) Paid by Owner
 - b. High Strength Bolts and installation per CBC Section 1705A, and CBC Section 1705A.2.6.
 - 1) Paid by Owner
 - c. Inspection of Shop and Field Welding per CBC Section 1705A, and CBC Section 1705A.2.5.
 - 1) Paid by Owner
6. 05 30 00 - METAL DECK
 - a. Steel Material per CBC Section 1705A, and CBC Section 1705A.2.2.
 - 1) Paid by Owner
 - b. Inspection of Shop and Field Welds per CBC Section 1705A, and Table 1705A.2.1.
 - 1) Paid by Owner
7. 06 17 33 - WOOD JOISTS
 - a. Continuous Plant Inspection for open web trusses per CBC Section 1705A.5.5.
 - 1) Paid by Owner

TESTING LABORATORY SERVICES

2533

8. 06 18 00 - GLUE-LAMINATED CONSTRUCTION
 - a. Continuous Plant Inspection per CBC Sections 1705A.5.4, and 1705A.10.
 - 1) Paid by Owner

TESTING LABORATORY SERVICES

2533

9. 09 22 16 - METAL FRAMING
 - a. Metal Stud Material.
 - 1) Paid by Owner
 - b. Metal Stud Welding.
 - 1) Paid by Owner
10. 09 51 00 - ACOUSTICAL CEILINGS
 - a. Main and cross runners, intersection connectors and expansion devices
 - 1) Paid by Contractor
11. DIV. 22 - PLUMBING
 - a. Non-Leaking System
 - 1) Paid by Contractor
 - b. Bacteriological Purity
 - 1) Paid by Contractor
12. DIV. 23 - HEATING, VENTILATING AND AIR CONDITIONING
 - a. Equipment Operation
 - 1) Paid by Contractor
 - b. System Energy Balance
 - 1) Paid by Contractor
 - c. Non-Leaking Hydronic System.
 - 1) Paid by Contractor
13. DIV. 26 - SERVICE AND DISTRIBUTION
 - a. Equipment Operation
 - 1) Paid by Contractor
 - b. Protective Systems
 - 1) Paid by Contractor
14. DIV. 26 - LIGHTING
 - a. Equipment Operation
 - 1) Paid by Contractor
15. DIV. 27 - MASTER CLOCK AND PUBLIC ADDRESS SYSTEM
 - a. Equipment Operation
 - 1) Paid by Contractor
16. DIV. 28 - FIRE SPRINKLER SYSTEM
 - a. All tests required by NFPA #13.
 - 1) Paid by Contractor
17. DIV. 28 - WET CHEMICAL FIRE SUPPRESSION SYSTEM
 - a. All tests required by NFPA #17A.
 - 1) Paid by Contractor
18. 31 20 00 - EARTHWORK
 - a. Compaction Test
 - 1) Paid by Owner
 - b. Inspection of Excavations and Fills per CBC Table 1705A.6.
 - 1) Paid by Owner
 - c. Department of Toxic Substances Control (DTSC) Independent Testing of Imported soil

TESTING LABORATORY SERVICES

2533

1) Paid by Contractor

C. Division of the State Architect "Statement of Structural Tests and Special "Inspections":

TESTING LABORATORY SERVICES

2533

1. In addition to the TESTING SCHEDULE cited above, and elsewhere within the documents, DSA requires the Contractor to schedule and manage the following tests to be performed and reported as required for this Project.
2. Failure to schedule these tests is grounds for reduction in Monthly Payment Request authorization, and may delay distribution of the Final Payment.
3. Refer to the approved DSA 103-Listing of Structural Tests and Special Inspections Form.

END OF SECTION

TEMPORARY FACILITIES AND CONTROLS

2533

SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS**PART 1 - GENERAL****1.1 SUMMARY**

- A. Provide all material, labor, equipment and services necessary to completely install all Temporary Utilities, Support Facilities, and Protection Facilities materials, accessories and other related items necessary to complete the Project as indicated by the Contract Documents.
- B. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS.
 - 2. DIVISION 01 SPECIFICATION SECTIONS.
 - 3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP.
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

1.2 SUBMITTALS

- A. Per SUBMITTAL PROCEDURES.
- B. Shop Drawings:
 - 1. Project Sign.
- C. Site Safety Plan prior to initial filing of Construction Start Notice/Inspection Card Request.
- D. Temporary Project Enclosure Plan.
- E. Dust Prevention and Control Plan.
 - 1. Approved application from APCD.
- F. Traffic Control Plan.
 - 1. Approved application from local City or County Engineer for Traffic Control.

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. Per Specification Section - REGULATORY REQUIREMENTS.
 - 2. CARB Materials and equipment used for this Project shall comply with the current applicable regulations of the California Air Resources Board (CARB) and the Environmental Protection Agency (EPA), in the area where the project is located.
 - 3. CAL/OSHA California Division of Occupational Safety and Health Administration
 - 4. EPA Environmental Protection Agency

1.4 REQUIRED PLAN DOCUMENTS

- A. Site Safety Plan:
 - 1. Contractor shall be responsible for the development, implementation, and maintenance of a written plan establishing a site safety plan at the project site applicable throughout all phases of the construction, repair, alteration, or demolition work.
 - 2. It is the Contractor's responsibility to contact local Fire Authority to discuss the plan.
 - a. A copy of the report should be made available to the Project Inspector and local Fire Authority.
 - b. Plan will be turned over to the Owner and AHJ in compliance with rules and regulations, but will not be reviewed.
 - 3. Regulatory References:
 - a. DSA BU 24-05 Bulletin: Fire Safety During Construction and Demolition.

TEMPORARY FACILITIES AND CONTROLS

2533

- b. CFC Chapter 33, Section 3308 and sub-sections.
- 4. Plan shall address at a minimum:
 - a. Project Phases.

TEMPORARY FACILITIES AND CONTROLS

2533

- 1) Describe each phase of the construction, repair, alteration, or demolition work.
- b. Site Security Provisions.
- c. Site Safety Director.
 - 1) Designate responsible program superintendent per CFC 3308.2.
 - 2) Include name and contact information.
- d. Training Documentation.
 - 1) Document training of site safety director and fire watch personnel.
- e. Emergency Reporting Procedures.
- f. Fire Department Vehicle Access Routes.
- g. Locations of fire protection equipment.
 - 1) Include portable fire extinguishers, standpipes, fire department connections and fire hydrants.
- h. Smoking and Cooking Policies.
 - 1) Include designated area to be used where approved, and signage locations in accordance with CFC Section 3305.8.
- i. Temporary Heating Equipment.
 - 1) Location and safety considerations.
- j. Hot Work Operations.
- k. Control Plan for Combustible Waste.
- l. Control Plan for Flammable and Combustible Materials.
 - 1) Locations and methods for storage and use of flammable and combustible liquids and other hazardous materials.
- m. Renovation Work Procedures.
 - 1) Procedure for impairment of fire protection systems.
 - 2) Procedure for temporary covering of fire protection devices.
- n. Procedure for Changes.
- B. Temporary Project Enclosure Plan:
 - 1. Prior to commencing the Work, prepare a Temporary Project Enclosure Plan indicating the protection of people, animals, and partial and fully completed work until occupancy by the Owner.
 - 2. Identify temporary egress from existing occupied facilities and as required by authorities having jurisdiction.
 - 3. The Temporary Project Enclosure Plan shall include, but not be limited to, the following:
 - a. Contractor's name and project identification information.
 - b. Indicate the duration of the proposed measures based on the completion of the work as a whole and if any phases of work are identified.
 - c. Indicate proposed temporary fencing and potential exit and entry paths.
 - 1) Show gate and door locations and indicate who has access.
 - d. Indicate proposed temporary wall location(s) and potential exit and entry paths.
 - 1) Show door location(s) and indicate who has access.
 - e. Indicate type of material used for temporary fencing, walls, gates, and doors.
 - f. Indicate proposed temporary roads and paved areas.
 - g. Indicate proposed temporary offices and storage areas.
- C. Dust Prevention and Control Plan:
 - 1. Prior to commencing the Work, prepare a Dust Prevention and Control Plan and obtain review and approval of the Air Pollution Control District (APCD) in the area where the project is located.

TEMPORARY FACILITIES AND CONTROLS

2533

- a. Prepare application and file with appropriate fees to APCD upon completion of Dust Prevention and Control Plan.

TEMPORARY FACILITIES AND CONTROLS

2533

2. The Dust Prevention and Control Plan shall specify the methods of control that will be utilized, demonstrate the availability of needed equipment and personnel, and identify a responsible individual who, if needed, can authorize implementation of additional measures.
3. All construction shall comply with applicable elements of the APCD's regulations.
4. The Dust Prevention and Control Plan shall include, but not be limited to, the following:
 - a. Contractor's name and project identification information.
 - b. Procedures and measures to be implemented, but not be limited to:
 - 1) All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust.
 - 2) During periods of high winds, all clearing, grading, earth moving, or excavation shall cease when dust control measures are unable to avoid visible plumes.
 - 3) All dust producing material transported off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.
 - 4) The area disturbed by clearing, earth moving, or excavation activities shall be minimized at all times.
 - 5) All watering of areas shall be only to the extent required to keep the soil particles in a moist condition and not to the extent that erosion of surface soil occurs.
 - 6) To control general fugitive dust, on-site vehicle speed shall be limited to 15 mph.
 - 7) All areas with vehicle traffic shall be watered periodically for stabilization of dust emissions.
 - 8) Periodically streets adjacent to the project site shall be cleaned as required to remove silts which may have accumulated from construction activities.

D. Traffic Control Plan:

1. Prior to commencing the Work, prepare a Traffic Control Plan and obtain approval of the local City or County Engineer in the area where the project is located.
 - a. Prepare application and file with appropriate fees to the local City or County Engineer upon completion of Traffic Control Plan.
2. The Traffic Control Plan shall include information on construction timing and phasing and proposed methods of alleviating potential hazardous and/or inconvenient conditions. Such methods can include, but are not limited to, the use of flagmen, barricades, signs, warning lights, detours, phased lane closures, coordination with adjacent property owners, and coordination with law enforcement, fire protection and other emergency service agencies.

1.5 PROJECT CONDITIONS

A. Environmental Requirements:

1. Heating and Cooling:
 - a. Provide temporary heating and cooling required by construction activities for curing, acclimating the building or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed, and is maintained prior, during and after the installation in accordance with the exterior or interior building materials temperature and humidity guidelines.
 - 1) Do not use heating units that contribute moisture to the enclosed spaces under construction.
2. Ventilation and Humidity Control:
 - a. Provide temporary ventilation required by construction activities for curing, acclimating the building or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
 - 1) Exterior Moisture Control:

TEMPORARY FACILITIES AND CONTROLS

2533

- a) Perform the installation of all exterior building cladding only after the substrate to which they are being applied is dry and ready to receive them. Do not apply any

TEMPORARY FACILITIES AND CONTROLS

2533

cladding if it will trap moisture inside a wall or roof cavity (i.e. insulation that has become wet for whatever reasons).

2) Interior Moisture Control:

- a) Perform the installation of all interior moisture sensitive building materials only after the building or space is acclimated to the final environmental conditions under which the building is to be operated in accordance within the Owner's humidity control guidelines.
- b. Maintain a consistent humidity in accordance with the guidelines for those materials in the space at least seven (7) days prior to installation of any moisture sensitive materials (i.e. Veneer Plaster, Gypsum Board, Ceiling Tiles, Wood Sensitive Floors, other Flooring sensitive to moisture levels, Interior Painting, etc.).
- c. Maintain the same levels or temperature and humidity during the installation of those materials, and after the installation of those materials until the building's own mechanical systems can be turned on to maintain the facility within the Owner's temperature and humidity control guidelines.
- d. Replace any materials that have become wet and damaged due to the Contractor not properly protecting installed building materials at no additional cost to the Owner.

3. Dust control:

- a. Perform work in a manner as to minimize the spread of dust and flying particles.
- b. Thoroughly moisten all surfaces as required to prevent dust from being a nuisance to the public, neighbors and concurrent performance of other on-site work.
- c. Temporarily cover mechanical equipment and ductwork openings to prevent the entry of construction dust and debris.

4. Burning: No burning will be allowed on-site.

5. Noise Control:

- a. Stationary noise sources shall be of a low-noise emission design, consistent with the best available noise reduction technology.
- b. The hours of operation of noise-generating equipment shall be restricted to 6:00 a.m. to 7:00 p.m. Monday through Friday, and to 8:00 a.m. to 6:00 p.m. on Saturday and Sunday.
- c. Mufflers shall be required on all gas and diesel-powered equipment.

B. Existing Conditions:

- 1. Examine site and compare it with the drawings and specifications. Thoroughly investigate and verify conditions under which the work is to be performed. No allowance will be made for extra work resulting from negligence or failure to be acquainted with all available information concerning conditions necessary to estimate the difficulty or cost of the work.
- 2. Cultural Resources:
 - a. The Contractor is advised of the possibility that cultural resources may be discovered during project activities.
 - b. If any cultural or paleontological materials are uncovered during project activities, work in the area or any area reasonably suspected to overlie adjacent remains shall be stopped and the Architect advised of the discovery. The Architect will notify the appropriate agency and the work shall remain stopped until professional cultural resources evaluation and/or data recovery excavation can be planned and implemented. Appropriate measures to protect remains from accidents, looting, and vandalism shall be implemented immediately on discovery.
 - c. If human remains are discovered, the work in the area or any area reasonably suspected to overlie adjacent remains shall be stopped and the County Coroner and the Architect shall be notified immediately. Appropriate measures to protect remains from accidents, looting, and vandalism shall be implemented immediately on discovery. The work shall

TEMPORARY FACILITIES AND CONTROLS

2533

remain stopped until professional cultural resources evaluation and/or recovery excavation can be planned and implemented.

TEMPORARY FACILITIES AND CONTROLS

2533

PART 2 - PRODUCTS**2.1 EQUIPMENT****A. Fire Protection During Construction:**

1. Provide Temporary Fire Protection per CFC Chapter 33 during demolition and construction.

B. Field Offices:

1. Contractor's Field Office: 200 square feet.

- a. Size: Nominal 8 feet wide minimum, approximately 200 square feet minimum.

- b. Equipment:

- 1) 2A:10B:C Surface Mounted Fire Extinguisher.
 - 2) Table for review of Drawings.
 - 3) Files, rack and shelves as required to store Contract Drawings and Project Record Drawings in a neat, orderly manner.
 - 4) One copy of each code listed in Specification Section - REGULATORY REQUIREMENTS.
 - 5) Telephone.
 - 6) Internet Connection.
 - 7) Plain Paper Copier / FAX Machine.

- c. Facilities:

- 1) Adequate light and power.
 - 2) Adequate heating, ventilation and air conditioning.

- d. Control and Access:

- 1) Door shall be lockable and key shall be supplied to Architect and access shall be limited to Owner, Architect, Inspector and Contractor.

- e. All of the above items shall be subject to Architect's approval.

2. Project Inspector's Field Office: 96 square feet.

- a. Size: Nominal 8 feet wide minimum, approximately 96 square feet minimum.

- b. Equipment:

- 1) 2A:10B:C Surface Mounted Fire Extinguisher.
 - 2) Table for review of Drawings.
 - 3) Files, rack and shelves as required to store Contract Drawings and Project Record Drawings in a neat, orderly manner.
 - 4) Space for one copy of each code listed in Specification Section - REGULATORY REQUIREMENTS.
 - 5) Telephone.
 - 6) Internet Connection.
 - 7) Plain Paper Copier / FAX Machine.

- c. Facilities:

- 1) Adequate light and power.
 - 2) Adequate heating, ventilation and air conditioning.

- d. Control and Access:

- 1) Door shall be lockable and key shall be supplied to Architect and access shall be limited to Owner, Architect, Inspector and Contractor.

- e. All of the above items shall be subject to Architect's approval.

C. Project Sign:

1. The Contractor shall furnish and erect at location as directed by the Architect one sign board approximately 4 feet x 8 feet, fabricated of 3/4 inch exterior grade plywood with a sturdy

TEMPORARY FACILITIES AND CONTROLS

2533

- frame attached to 4 inch x 4 inch x 14 foot redwood posts set 4 feet in the ground minimum, and substantially braced.
2. The sign to be painted on signboard shall be of design in 4 colors as directed by the Architect.
 3. Lettering shall be of style shown, neatly executed by a skilled sign painter.

TEMPORARY FACILITIES AND CONTROLS

2533

4. The information to be lettered on sign shall be as furnished by the Architect.
 - a. Sign will include the names of the Contractor(s), Owner, Architect, and the project designation.

PART 3 - EXECUTION**3.1 EXAMINATION**

- A. Site verification of conditions:
 1. Report unacceptable conditions to the Architect. Do not begin work until unacceptable conditions have been corrected.
 2. Execution of work under this specification section shall constitute acceptance of existing conditions.
 3. Obtain all necessary permits and authorizations by regulatory agencies required to perform the work under this section.

3.2 PREPARATION

- A. Coordination:
 1. Before proceeding, verify plans match existing conditions.
 2. Coordinate work under this specification with work specified under other sections to ensure proper and adequate interface of work.
- B. Protection:
 1. The Contractor shall verify and protect existing landscaping, asphalt area, concrete walkways, and other site improvements to remain on the site before proceeding with the Work.
 2. Prior to starting Work, hose bibbs, utility lines, etc., to be abandoned and removed within the construction area shall be stubbed off outside the limits of construction.
 3. Verify and protect utilities to remain within the construction area and provide special construction for their protection.

3.3 IMPLEMENTATION

- A. General:
 1. Perform Work and provide and maintain Temporary Utilities and Temporary Facilities in accordance with the requirements of all regulatory authorities having jurisdiction.
 2. Contractors shall cooperate with other contractors and the Owner in the use of the site, Temporary Utilities, Temporary Facilities and shall adjust their operations to maintain harmonious relations and uninterrupted progress of the Work.
 3. The Contractor shall assume all responsibility for the provision and maintenance of these Temporary Utilities and Temporary Facilities and for the provisions of public safety where the operations under this Contract interface with public areas.
 4. Relocate and modify Temporary Utilities and Temporary Facilities, as required by progress of the Work.
 5. Remove Temporary Utilities and Temporary Facilities upon completion of the Project.
 6. Temporary Utilities and Temporary Facilities are to be provided and maintained from commencement of Work until final acceptance.
 - a. The Contractor shall pay all charges required of him for the duration of the project, including a 1month period following the date of the Notice of Substantial Completion.
- B. Temporary Utilities:
 1. Install temporary service or connect to existing service.
 - a. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

TEMPORARY FACILITIES AND CONTROLS

2533

- 1) Minimum forty-eight (48) hours prior notice to any interruption.
2. Sewers:
 - a. Provide temporary service to remove effluent lawfully.

TEMPORARY FACILITIES AND CONTROLS

2533

3. Storm Drainage:
 - a. Provide temporary service as necessary to remove storm water. Work shall be performed in accordance with the requirements of the Storm Water Pollution Prevention Plan (SWPPP), if any. If no SWPPP is required, then follow local authorities having jurisdiction requirements.
 4. Water:
 - a. The Owner will pay for all water supply for all purposes of construction at a location to be designated at the site. Extensions within the site shall be provided by the Contractor and maintained in a safe and efficient manner.
 5. Electrical:
 - a. The Owner will pay and the Contractor shall provide for all electrical facilities and services for all purposes of power and lighting for construction at a location to be designated at the site. Extensions within the site shall be provided by the Contractor and maintained in a safe and efficient manner.
 - 1) The Contractor shall pay for cost of electrical energy required in connection with the testing of such equipment as generators, transformers, power machinery, and similar equipment installed in the work.
 - b. The Contractor will provide electrical energy to all subcontractors as required on or about the premises.
 - c. The Contractor will provide power outlets having adequate electrical characteristics and lighting of adequate intensity for the use of other contractors within reasonable distances from their needs and within a reasonable period of time after the other contractors have requested them.
 6. Telephone:
 - a. The Contractor shall provide and pay for all telephone service and telephone equipment in the Field Offices until completion of the Work.
 - 1) Provide an additional dedicated phone line for modem/network connection in the Project Inspector's Field Office for use by the Architect's representative.
 7. Heating:
 - a. Provide temporary heat required by construction activities, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity.
 - b. Select UL or FM approved equipment that will not have a harmful effect on completed installations or elements being installed.
 - 1) Except where use of the permanent heating system is authorized, provide temporary units that do not introduce moisture into the newly constructed building spaces.
 - 2) Use of gasoline-burning space heaters, open flame, or salamander type heating units is prohibited.
 - c. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
- C. Temporary Facilities:
1. Support Facilities:
 - a. Offices and Storage:
 - 1) Provide temporary offices and storage facilities located within the construction area.
 - 2) Protect materials, construction work and their operations from weather, vandalism, and theft.
 - b. Sanitary Facilities:
 - 1) Provide adequate, self-contained toilets as required for all persons employed on the Project.

TEMPORARY FACILITIES AND CONTROLS

2533

- 2) In no case shall the permanent plumbing fixtures of the Project be used for this purpose.
- c. Temporary Roads and Paved Areas:

TEMPORARY FACILITIES AND CONTROLS

2533

- 1) Construct and maintain temporary roads and paved areas adequate for construction operations and fire protection during construction.
- d. Traffic Controls:
 - 1) Implement procedures and measures outlined in the local jurisdiction's approved Traffic Control Plan.
 - 2) Maintain access for fire-fighting equipment and access to fire hydrants.
 - 3) Conduct work and comply with applicable building codes and regulations regarding the use of public streets and sidewalks and the proper barricading and lighting of public thoroughfares surrounding the construction activities.
 - 4) Provide and maintain access as required to perform work.
 - 5) Repair all damage as a result of work performed on the project to adjacent roads, streets, drives and walks. Restore to condition as good as existed at commencement of the Work.
- e. Project Sign:
 - 1) Install project sign as submitted and approved.
 - 2) No other signs will be allowed on the project.
2. Protection Facilities:
 - a. Existing Facilities:
 - 1) Protect existing vegetation, equipment, structures, utilities, and other improvements at project site and on adjacent properties, except those indicated to be removed or altered. Damage occurring during the course of construction shall be repaired to condition at the start of the Work.
 - b. Environmental:
 - 1) Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - c. Project Enclosure:
 - 1) Implement procedures and measures outlined in Temporary Project Enclosure Plan.
 - 2) Project enclosure shall protect materials, construction work, and operations from vandalism, theft, and to exclude the intrusion of the public into the construction area.
 - 3) Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by the Owner from fumes and noise.
 - 4) Maintain security by limiting number of keys and restricting distribution to authorized personnel.

3.4 CLEANING

- A. Clean in accordance with Specification Section – PROJECT CLOSEOUT.
 1. At all times, keep the premises free from accumulations of waste materials or rubbish caused by employees or the Work.
 2. Clean all soiled surfaces to remain immediately.
 3. At the completion of the Work, remove all rubbish from and about the building and all tools, scaffolding, and surplus materials and shall leave the Work "broom clean" or its equivalent.

END OF SECTION

OWNER-FURNISHED ITEMS

2533

SECTION 01 64 00 – OWNER-FURNISHED ITEMS**PART 1 - GENERAL****1.1 SUMMARY**

- A. Provide all materials, labor, equipment, and services necessary to prepare for installation for those items, noted or scheduled within the Contract Documents, indicated as follows:
 - 1. CFCI - Contractor Furnished, Contractor Installed
 - 2. OFCI - Owner Furnished, Contractor Installed
 - 3. OFOI - Owner Furnished, Owner Installed
 - 4. OFVI - Owner Furnished, Vendor Installed
- B. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS.
 - 2. DIVISION 01 SPECIFICATION SECTIONS.
 - 3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP.
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

1.2 DEFINITIONS

- A. CFCI: CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
 - 1. When and if the indication "CFCI" is noted on the drawings or listed in the specifications, such items are shown or listed for information and will be furnished by and installed by the Contractor. Such a designation is listed only for clarity, in order to set the item(s) apart from the OFCI, OFOI, and OFVI related item(s).
 - 2. All item(s) shown or listed in the drawings and specifications without any indication are in the Contract and are part of the Work unless specifically noted otherwise.
- B. OFCI: OWNER FURNISHED, CONTRACTOR INSTALLED
 - 1. When and if the indication "OFCI" is noted on the drawings or listed in the specifications, such item(s) are shown or listed for information and will be furnished by Owner and installed by the Contractor. The Contractor shall coordinate and verify all dimensions and details necessary for the proper installation.
- C. OFOI: OWNER FURNISHED, OWNER INSTALLED
 - 1. When and if the indication "OFOI" is noted on the drawings or listed in the specifications, such item(s) are shown or listed for the purpose of general information and will be furnished and installed by Owner. The Contractor shall coordinate and verify all dimensions and details necessary for proper installation.
- D. OFVI: OWNER FURNISHED, VENDOR INSTALLED
 - 1. When and if the indication "OFVI" is noted on the drawings or listed in the specifications, such item(s) are shown or listed for information and will be furnished by the Owner and installed by the Vendor. The Contractor shall coordinate and facilitate all work to be completed by the Vendors.

1.3 SUBMITTALS

- A. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES:
- B. Coordination Drawings:
 - 1. Submit installer's coordination drawings or other documents indicating the work of this section with that of related work of other sections for proper interface of the completed work. Installer shall coordinate and obtain approvals from the work of other related sections prior to submitting to the Architect.

OWNER-FURNISHED ITEMS

2533

2. The Owner will provide Product Data, Shop Drawings, Piping and Wiring Diagrams, Catalog Data Sheets for any items provided under this Specification Section.
- C. Closeout Submittals in accordance with Specification Sections in Division One:

OWNER-FURNISHED ITEMS

2533

1. Project Record Documents in accordance with Specification Section - PROJECT DOCUMENTS.

1.4 QUALITY ASSURANCE**A. Regulatory Requirements:**

1. In accordance with Specification Section - REGULATORY REQUIREMENTS, and the following:
 - a. CARB Materials and equipment used for this Project shall comply with the current applicable regulations of the California Air Resources Board (CARB) and the Environmental Protection Agency (EPA). Regulatory changes may affect the formulation, availability, or use of the specified coatings. Confirm availability of coatings to be used prior to use, and notify the Architect of any recent changes in the Local California Air District Standards where the Project is located, that may have occurred after the preparation of this specification section.

B. Meetings:

1. Progress Meetings: Scheduled by the Contractor for the proper performance of the work.
 - a. Minimum agenda shall be to review the work progress; discuss field observations, problems, and decisions; identification of any potential problems which may impede planned progress; corrective measures to regain projected schedules; and maintenance of quality and work standards in accordance with manufacturer's warranty requirements.
2. Final Inspection: Scheduled by the Contractor upon proper completion of the work.
 - a. Minimum agenda shall be a walkover inspection to identify problems which may impede the issuance of any warranties or guarantees, and discussion of maintaining the work until substantial completion notice for the project is filed.
3. Participants (or designated representative of) invited to attend each of the above meetings shall be as follows:
 - a. Contractor.
 - b. Owner.
 - c. Architect.
 - d. Installer.
 - e. Material Manufacturer(s).
 - f. Subcontractors, as appropriate (including any accessory subcontractors).

1.5 DELIVERY, STORAGE, AND HANDLING**A. Packing, shipping, handling, and unloading:**

1. Products shall be handled in such a manner as to assure that they are free from dents, scratches and other damage. Damaged products will not be accepted. Contractor shall inspect prior to unloading, for any damaged goods, and if OK, will allow unloading and be responsible for the goods.

B. Acceptance at Site:

1. The Contractor shall accept delivery of any items and the responsibility for all items to be furnished to him by the Owner.

C. Storage and protection:

1. Owner Furnished Equipment: The Owner will coordinate and inform the Contractor as to delivery dates for Owner Furnished Equipment to the Project Site. The Contractor shall be responsible for unloading, uncrating, and protecting such equipment.
2. When only a supporting device, or sub-assembly is to be installed by the Contractor the Owner shall provide only that portion and shall store and safeguard those portions to be installed later by others.

OWNER-FURNISHED ITEMS

2533

3. All products shall be protected, handled, and stored in complete compliance with the manufacturer's printed instructions to protect the Owner from warranty infringements or loss of the full function of the item specified.

OWNER-FURNISHED ITEMS

2533

1.6 PROJECT CONDITIONS OR SITE CONDITIONS

A. Existing Conditions:

1. Examine site and compare it with the drawings and specifications. Thoroughly investigate and verify conditions under which the work is to be performed. No allowance will be made for extra work resulting from negligence or failure to be acquainted with all available information concerning conditions necessary to estimate the difficulty or cost of the work.
2. Examine all preparatory work to determine its suitability and completeness. Notify the responsible Contractor of any deficiencies which must be corrected prior to installation.
3. Be satisfied that all conditions affecting installation, operation or function are suitable for installation of the items scheduled.
4. After installation, and acceptance by the inspector and the Architect, the Contractor shall provide protective guards, covers or barricades as required by the manufacturer.
5. The Contractor shall promptly repair, refurbish, or replace items damaged by his operations to a condition satisfactory to the Owners representatives and at no cost to the Owner.

1.7 WARRANTY

1. The Contractor shall provide access to the installed items or prepared substrates for the inspection of the manufacturers representatives, for the purpose of affirming the warranties scheduled.
2. All work shall be performed in full accordance with the manufacturers warranty requirements and all governing codes.

PART 2 - PRODUCTS

NOT APPLICABLE

PART 3 - EXECUTION

3.1 PREPARATION

A. Coordination:

1. Coordinate work under this specification section with work specified under other sections to ensure proper and adequate interface of work.
 - a. Prepare all substrate blocking as required by the items Furnished By Owner.
 - b. Prepare all wiring and piping connections as required by the items Furnished By Owner.

B. Protection:

1. Protect all adjacent surfaces from drips, spray, air pollution of surrounding environment, and other damage from work under this specification section.

C. Surface preparation:

1. Prepare surface in accordance with manufacturer's instructions and recommendations.
2. Clean substrates of substances (oil, grease, rolling compounds, incompatible primers, loose mill scale, etc.) which could impair bond or installation of materials specified within the Contract Documents.

3.2 INSTALLATION

A. General:

1. In accordance with manufacturer's instructions and recommendations unless specifically noted otherwise.
2. In accordance with approved submittals.
3. In accordance with Regulatory Requirements.
4. Set plumb, level, and square.

OWNER-FURNISHED ITEMS

2533

B. Layout:

1. Lines shall be straight and true.

C. Material and Equipment to be installed:

OWNER-FURNISHED ITEMS

2533

- 1. All items so noted or scheduled to be OFCI shall be unloaded, completely installed and placed in operable condition under this Contract.

3.3 CLEANING

- A. Clean in accordance with Specification Section - PROJECT CLOSEOUT.
 - 1. Clean any soiled surfaces at the end of each day, minimum.
 - 2. In accordance with manufacturer's instructions and recommendations.

3.4 SCHEDULES

- A. This schedule is provided for the convenience of the General Contractor for items not scheduled elsewhere on the drawings or in the Specification Sections. Refer to Drawings for additional items not listed below:
 - 1. SITE EQUIPMENT STATUS
 - a. Playfield Equipment OFCI
 - b. Shade Structure OFCI
 - c. Synthetic Turf OFCI
 - 2. BUILDING EQUIPMENT STATUS
 - a. Paper Towel Dispenser OFCI
 - b. Soap Dispenser OFCI
 - c. Seat Cover Dispenser OFCI
 - d. Toilet Tissue Dispenser OFCI
 - e. Grab Bars OFCI
 - f. Mirrors OFCI
 - g. Waste Receptacles OFCI
 - h. Security Cameras OFCI
 - i. PA System OFCI
 - j. Knox Box OFCI

END OF SECTION

CUTTING AND PATCHING

2533

SECTION 01 73 29 – CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide all material, labor, equipment and services necessary for cutting and patching existing materials, accessories and other related items necessary to remodel the Project as indicated by the Contract Documents.
- B. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS.
 - 2. DIVISION 01 SPECIFICATION SECTIONS.
 - 3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP.
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

1.2 DEFINITIONS

- A. Cutting: Removal of existing construction necessary to permit installation or performance of Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of Work.

1.3 SUBMITTALS

- A. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES:
- B. Coordination Drawings:
 - 1. Submit any installer's coordination drawings indicating the work of this section with that of related work of other sections for proper interface of the completed work. Installer shall coordinate and obtain approvals from the work of other related sections prior to submitting to the Architect.

1.4 QUALITY ASSURANCE

- A. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades.
 - 1. Review areas of potential interference and conflict.
 - 2. Coordinate procedures and resolve potential conflicts before proceeding.
- B. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- C. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- E. The Contractor shall do all cutting, fitting or patching of existing construction and his work as may be required to make the several parts come together properly and ready to receive or be received by work of other contractors as shown, or reasonably implied by the drawings and specifications for the completed structure. All work shall be as directed by the Architect to achieve the intended work and degree of finish shown.

CUTTING AND PATCHING

2533

- F. Any cost caused by defective or ill-timed work shall be borne by the party responsible therefor.

CUTTING AND PATCHING

2533

1.5 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS**2.1 MATERIALS**

- A. General: Comply with requirements specified in other Sections of these Specifications.
- B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials.

PART 3 - EXECUTION**3.1 EXAMINATION**

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Services: Where existing services are required to be removed, relocated, or abandoned, bypass such services before cutting to avoid interruption of services to occupied areas.

3.3 FIELD QUALITY CONTROL

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.

CUTTING AND PATCHING

2533

3. Concrete or Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill. ***Do not overcut concrete corners*** – hand chip all corners to prevent over-cutting lines. Cut any masonry pavers at grout lines, and ***don't overcut*** into adjacent brick that is to remain.

CUTTING AND PATCHING

2533

4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Grinding and Sandblasting: Where grinding and sandblasting is required of existing construction, perform in accordance with industry standards for proper preparation of new construction or finishes.
- D. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - a. All hard paving and walk replacement shall be flush with adjacent existing construction. Compact existing subgrade so that there is no settling of adjacent horizontal surfaces greater than 1/4", and that all surfaces are ADA compliant.
 - b. When altering surfaces in brick paving, match nearby adjacent horizontal concrete surfaces in color and texture. Take care to protect adjacent brick surfaces from concrete slurry and finishing operations. Clean exposed surfaces of brick immediately so that no signs of adjacent concrete work is seen.
 - c. Match existing adjacent exposed aggregate concrete paving (color and texture) when construction is proposed for areas paved with exposed aggregate concrete.
 - d. Match existing adjacent colored concrete paving (color and texture) when construction is proposed for areas paved with colored concrete.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- E. Insert specific installation requirements if not specified elsewhere. Specific installation requirements are better specified in individual Sections.

END OF SECTION

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

SECTION 01 74 19 – CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL**PART 1 - GENERAL****1.1 SUMMARY**

- A. Requirements governing execution of the work including, but not limited to, the following:
 - 1. Salvaging non-hazardous demolition waste.
 - 2. Recycling non-hazardous construction and demolition waste.
 - 3. Disposing of non-hazardous construction and demolition waste.
- B. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS
 - 2. DIVISION 01 SPECIFICATION SECTIONS
 - 3. SPECIFICATION SECTIONS IN THE FACILITY CONSTRUCTION SUBGROUP
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP

1.2 DEFINITIONS

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

1.3 SYSTEM DESCRIPTION

- A. Performance Requirements
 - 1. General:
 - a. Achieve end-of-project rate for salvage/recycling of minimum [65][75][90] percent by weight of total non-hazardous construction and demolition waste generated by the Work.
 - b. Practice efficient waste management in the use of materials in the course of the Work.
 - c. Use all reasonable means to divert construction demolition waste from landfills and incinerators.

1.4 SUBMITTALS

- A. Submit in accordance with Specification Section – SUBMITTAL PROCEDURES:
- B. Quality Assurance/Control Submittal:
 - 1. Waste Management Plan.
 - 2. Waste Management Progress Reports.

1.5 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. In accordance with Specification Section - REGULATORY REQUIREMENTS and the following:

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

- a. CARB Materials and equipment used for this project shall comply with the current applicable regulations of the California Air Resources Board and the Environmental Protection Agency (EPA), in the area where the project is located.
- b. CAL/OSHA California Division of Occupational Safety and Health Administration.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

- c. CF County of Merced, codes and ordinances.
 - d. DTSC Department of Toxic Substances Control.
 - e. EPA Environmental Protection Agency.
- B. Waste Management Plan:
1. Prior to commencing the Work, submit Waste Management Plan. The Plan must include, but not limited to, the following:
 - a. Contractor's name and project identification information.
 - b. Procedures to be implemented.
 - c. Materials to be salvaged, recycled, or disposed.
 - d. Estimated quantities of material broken down by material categories.
 - e. Names and locations of entities who receive salvaged and recycled materials.
 - f. Tonnage calculations that demonstrate that the Contractor will salvage, re-use, or recycle the minimum percentage by weight of the construction and demolition waste materials generated by the Work.
- C. Waste Management Progress Reports:
1. Submit the Report with each application for progress payment.
 - a. Failure to submit the Report and it supporting documentation can render the application for progress payment incomplete and delay the progress payment.
 2. Each Report must include, but not limited to, the following:
 - a. List of material categories.
 - b. Weight quantity of waste by material category.
 - c. Weight quantity of waste salvaged.
 - d. Weight quantity of waste recycled.
 - e. Total weight quantity of salvaged and recycled waste by material category.
 - f. Weight percentage of waste salvaged and recycled by material category.
 - g. Include manifests, weight tickets, receipts, and invoices specifically identifying the universal waste, salvaged, reused, and recycled materials.
 - h. Signature line for Contractor.
- D. Meetings:
1. Pre- Demolition.....Schedule prior to the start of work.
 - a. Coordinate the work with other work being performed.
 - b. Identify any potential problems, which may impede the proper disposal of materials.
 - c. Review areas where waste and recycle bins will be located.
 - d. Review where salvaged materials will be stored.
 - e. Review demolition waste disposal and material recycling procedures and environmental goals per Waste Management Plan with all subcontractors and waste haulers.
 2. Progress:.....Scheduled by the Contactor during the performance of the work.
 - a. Review for maintaining proper procedures.
 - b. Inspect and identify any problems and acceptable corrective measures.
 3. Completion:.....Scheduled by the Contactor upon proper completion of the work.
 - a. Inspect and identify any problems.
 - b. Submit final Progress Report summarizing total construction and demolition waste weights, percentages salvaged, recycled, and disposed.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Cleaning, handling, and packing:
1. Salvaged Items shall be handled in such a manner as to assure that they are free from damage.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

2. Salvaged Items shall be cleaned and packed or cleaned and palletted before off-site transport.
- B. Storage and protection
1. Salvaged Items shall be stored in a dry, protected area prior to transport.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

2. Cover with protective waterproof covering providing for adequate air circulation and ventilation.

1.7 PROJECT CONDITIONS

A. Environmental requirements;

1. Comply with federal, state, and local regulations pertaining to solid waste, recycling, chemical waste, sanitary waste, and noise pollution.
2. Perform work in a manner as to minimize the spread of dust and flying particles.
3. No burning will be allowed on-site.

B. Existing conditions:

1. Examine project site and building(s) and compare it with the drawings and specifications. Thoroughly investigate and verify conditions under which the work is to be performed. No allowance will be made for extra work resulting from negligence or failure to be acquainted with all available information concerning conditions necessary to estimate the difficulty or cost of the work.
2. Conduct work so as not to interfere unnecessarily with adjacent buildings, roads, streets, drives, and walks.
 - a. Do not close or obstruct streets, alleys, walks, or passageways without permission from authorities having jurisdiction and coordinating same with immediate neighbors whose business operation may be affected.
 - b. Safety measures shall be taken to insure an uninterrupted flow of traffic around the site as required by local Police and Fire Departments.
3. Storage or sale of removed items on-site is not permitted.
4. Hazardous materials are present in buildings and structures to be selectively demolished. The Owner has prepared a report for the Contractor to review and use.
 - a. Hazardous material remediation is specified in Specification Section - HAZARDOUS MATERIAL PROCEDURES.

PART 2 - PRODUCTS

2.1 MATERIALS

- #### A. Furnish all materials, tools, equipment, facilities, and services as required for performing the construction and demolition waste disposal work.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verification of conditions:

1. Report unacceptable conditions to the Architect. Do not begin work until unacceptable conditions have been corrected.
2. Execution of work under this specification section shall constitute acceptance of existing conditions.
3. Obtain all necessary permits and authorizations by regulatory agencies required to perform the Work under this Section.

3.2 PREPARATION

A. Coordination:

1. Before proceeding, verify plans match existing conditions.
2. Review documents of existing construction provided by Owner against existing conditions.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

3. If conflicts are encountered, report it to the Architect. Then prepare recommendation(s) for correction and submit to Architect for review.
4. Coordinate work under this specification section with work specified under other sections.

B. Protection:

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

1. Property:
 - a. Provide temporary weather protection to prevent damage to salvage and recycled items.
 - b. All damage inflicted on public and private property and the property of the Owner shall be repaired or restored to the original condition prior to the start of this Work. All repair or replacement work shall be done at no additional cost to the owner.

3.3 IMPLEMENTATION**A. General:**

1. Implement waste management plan as submitted.
2. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the contract.
3. Designate and label specific areas on project site necessary for separating materials that are to be salvaged, recycled, reused, and donated.
4. Universal Waste: Dispose per DTSC requirements.
 - a. Batteries
 - b. Electronic Waste, Cathode Ray Tubes (CRT's), and CRT glass
 - c. Lamps: fluorescent light tubes, CFL bulbs, HID bulbs, metal halide bulbs, etc.
 - d. Mercury wastes
 - e. Non-empty aerosol cans
 - f. PV modules

B. Demolition Waste:

1. Salvaged items for delivery to Owner or other entity:
 - a. Clean salvaged items.
 - b. Pack or crate items after cleaning. Identify contents of containers.
 - c. Store items in a secure area until pick-up or delivery to Owner.
 - d. Transport item to Owner's storage area [on-site][off-site][list address].
 - e. Protect items from damage during transport and storage.
2. Salvaged items for reuse in the work:
 - a. Clean salvaged items.
 - b. Store items in a secure and dry area until ready for installation.
3. Recyclable materials:
 - a. Prepare and maintain recyclable waste materials according to recycling facility requirements.
 - b. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
 - c. Separate recyclable demolition waste from other waste materials. Separate recyclable waste by material type at project site to the maximum extent practical according to approved waste management plan.
 - 1) Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from the project site.
 - 2) Include a list of acceptable and unacceptable materials at each container or bin.
 - 3) Inspect containers and bins for contamination and remove contaminated materials if found.
 - 4) Processed materials stockpiled on site shall not be mixed with other materials. Shape stockpiles to drain surface water. Cover stockpiles to prevent windblown dust.
 - 5) Processed material shall be stockpiled away from construction. Do not stockpile within drip line of remaining trees.
 - d. Remove recyclable demolition waste off project property and transport to recycling receiver or processor.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

- e. The following list is of common material types which can be recycled. The list of material types is in no way complete but is representative of materials that can be sorted and recycled as per the intent of this specification section.
 - 1) Concrete: Remove reinforcement and other metals from concrete and sort with other metals.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

- 2) Wood: Sort and stack members according to size, type, and length of member.
 - 3) Metals: Separate metal by type. Stack structural steel members according to size and length. Remove bolts, nuts, washers, and other hardware from members.
 - 4) Gypsum Board: Stack large clean pieces on wood pallets in a dry location. Remove edge trim and sort with other metals.
 - 5) Acoustical Ceiling Tile: Stack large clean pieces on wood pallets in a dry location.
 - 6) Metal Suspension System: Separate metal members including trim and other metals from acoustical ceiling tile and sort with other metals.
 - 7) Carpet: Roll large pieces tightly after removing debris, trash, adhesive, and any tack strips. Store carpet in a dry location.
 - 8) Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
 - 9) Conduit: Reduce conduit to straight lengths and store by type and size.
4. Site clearing waste:
 - a. Excavated top soil and land clearing debris not recycled and reused on-site shall be removed to an off-site recycling location or disposed of at a landfill that accepts inert material.
- C. Construction Waste:
1. Recyclable materials:
 - a. Prepare and maintain recyclable waste materials according to recycling facility requirements.
 - b. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
 - c. Recycle paper and beverage containers used by on-site workers.
 - d. Separate recyclable construction waste from other waste materials. Separate recyclable waste by material type at project site to the maximum extent practical according to approved waste management plan.
 - e.
 - 1) Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from the project site.
 - 2) Include a list of acceptable and unacceptable materials at each container or bin.
 - 3) Inspect containers and bins for contamination and remove contaminated materials if found.
 - f. Remove recyclable construction waste off project property and transport to recycling receiver or processor.
 - g. The following list is of common material types which can be recycled. The list of material types is in no way complete but is representative of materials that can be sorted and recycled as per the intent of this specification section.
 - 1) Cardboard Packaging: Breakdown into flat sheets. Bundle and store in a dry place.
 - 2) Polystyrene Packaging: Separate and bag materials.
 - 3) Pallets: As much as possible, require deliveries using pallets to remove pallets from the project site. For pallets that remain on-site, breakdown pallets into component wood pieces and comply with requirements for recycling wood.
 - 4) Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.
 - 5) Wood: Clean Cut-Offs of lumber and grind or chip into small pieces.
 - 6) Gypsum Board: Stack large clean pieces on wood pallets in a dry location.
- D. Disposal of Waste:
1. Except for items or materials to be salvaged, recycled, or otherwise reused remove and transport waste materials from project site and legally dispose of them in a manner acceptable to authorities having jurisdiction.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

2. Dispose of universal waste properly per DTSC standards.
3. Do not allow waste material to accumulate on site.
4. Transport waste in a manner that will prevent spillage on adjacent surfaces and areas.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

2533

3.4 CLEANING

1. Clean in accordance with Specification Section – PROJECT CLOSEOUT:
 - a. Immediately clean any soiled surfaces to remain.

END OF SECTION

HAZARDOUS MATERIALS PROCEDURES

2533

SECTION 02 26 00 – HAZARDOUS MATERIALS PROCEDURES**PART 1 - GENERAL****1.1 SUMMARY**

- A. Provide all material, labor, equipment and services necessary to provide Hazardous Materials Procedures, accessories and other related items necessary to complete the Project as indicated by the Owner provided Testing Reports and Abatement Procedures.
 - 1. Refer to the Appendix that contains Testing Reports and Abatement Procedures for materials, location, and scope of the Work.
- B. Testing Reports and Abatement Procedures have been prepared by the Owner and incorporated into the Project Manual. The Architect and Architect's consultants have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials in any form at the Project Site.
 - 1. The Contractor and all subcontractors shall agree to bring no claim for negligence, breach of contract, indemnity or otherwise against the Architect (principals and employees), agents and consultants if such claim in any way involves or is related to any hazardous materials in the Project.
- C. Related Sections:
 - 1. DIVISION 00 SPECIFICATION SECTIONS.
 - 2. DIVISION 01 SPECIFICATION SECTIONS.
 - 3. 09 65 19 RESILIENT TILE
 - 4. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP.

1.2 REFERENCES

- A. Standards:
 - 1. CAL-OSHA: California Occupational Safety and Health Act.
 - 2. DOSH: Department of Occupational Safety and Health.
 - 3. EPA: Environmental Protection Agency

1.3 SUBMITTALS

- A. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES:
- B. Quality Assurance/Control Submittals:
 - 1. Provide to the Owner the following requirements:
 - a. Provide a copy of California Contractor License, and current registration with CAL-OSHA (DOSH) for Asbestos related roof work.
 - b. Hazardous Material Removal Subcontractor shall provide proof of Workers Compensation, General Liability (\$1,000,000.00 minimum), and professional liability Insurance Certificates which specifically state the insurance will cover Asbestos Abatement.
- C. Pre-Construction Requirements – submittal to the Owner's Representative prior to construction:
 - 1. CAL-OSHA Plan of Action per DOSH Registration.
 - 2. Illness and Injury Prevention Program.
 - 3. Code of Safe Working Practice.
 - 4. Hazard Communication Program.
 - 5. List of Hazardous Materials Your Company uses.
 - 6. Material Safety Data Sheets (MSDS) of All Material required for Project.

HAZARDOUS MATERIALS PROCEDURES

2533

7. Copy of Project Notices to CAL-OSHA and County EPA office. Post all information at the Project Site.
8. Copy of all CAL-OSHA and EPA Citations, (if any) for Asbestos removal during the last 24 months.

HAZARDOUS MATERIALS PROCEDURES

2533

1.4 CLOSEOUT SUBMITTALS

- A. Project Completion Documentation - submittal to the Owner's Representative prior to final approval:
 - 1. Daily Air Monitoring reports.
 - 2. Dump Receipts and Notaries Letters.

1.5 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Hazardous Material Removal Subcontractor's Qualifications:
 - a. Engage an experienced Hazardous Material Removal Subcontractor who has successfully completed three (3) projects of similar scope and size to that indicated for this Project.
- B. Regulatory Requirements:
 - 1. In accordance with Specification Section - REGULATORY REQUIREMENTS, and the following:
 - a. Other applicable City, County, State and Federal Requirements where the Project is located.

PART 2 - PRODUCTS

2.1 ABATEMENT

- A. Provide all materials as required to complete the work as indicated by the Owner's Testing Reports and Abatement Procedures.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Site verification of conditions:
 - 1. Prior to the execution of the work under this specification section, inspect the installed work executed under other sections of this Project Manual which affect the execution of work under this specification section.
 - 2. Report unacceptable conditions to the Architect. Do not begin work until unacceptable conditions have been corrected.
 - 3. Execution of work under this specification section shall constitute acceptance of existing conditions.

3.2 PREPARATION

- A. Coordination:
 - 1. Coordinate work under this specification section with work specified under other sections to ensure proper and adequate interface of work.
 - 2. Contractors shall cooperate with other contractors and the Owner in the use of the site facilities and shall adjust their operations to maintain harmonious relations and uninterrupted progress of the Work.
- B. Protection:
 - 1. Protect all adjacent surfaces from drips, spray, air pollution of surrounding environment, and other damage from work under this specification section.
 - 2. Install and maintain shelter as may be necessary to protect completed Work and existing structures from damage and disfigurement by the elements and other natural causes.

HAZARDOUS MATERIALS PROCEDURES

2533

- a. Any portion of Work (or existing facilities) damaged or disfigured prior to final acceptance of the abatement, shall be properly, neatly and satisfactorily reconstructed or repaired and the Project left without defects at final acceptance.

HAZARDOUS MATERIALS PROCEDURES

2533

3.3 FIELD QUALITY CONTROL

- A. Provide the Owner's Representative (prior to final acceptance) the following:
 - 1. Provide copies of Daily Air Monitoring of both personal and work areas, completed and tested by an Independent Testing Laboratory.
 - 2. Provide copies of Dump Receipts and Notaries Letter confirming site and amount of debris dumped.
 - a. Burning of combustible materials from demolished work will not be permitted on site.
 - b. Transport materials removed from the work and dispose of off site at legally designated hazardous material dumps.

3.4 CLEANING

- A. The Contractor shall at all times keep the premises free from accumulations of waste materials or rubbish caused by its employees or Work, and at the completion of the Work the Contractor shall remove all rubbish from and about the building and all tools, scaffolding and surplus materials and shall leave work "broom clean" (or its equivalent), or in accordance with code requirements (which ever is most restrictive).

END OF SECTION

SELECTIVE DEMOLITION

2533

SECTION 02 41 19 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements governing execution of the work including, but not limited to, the following:
 - 1. Demolition and removal of selected portions of building or structure.
 - 2. Demolition and removal of selected site elements.
 - 3. Salvage of existing items to be reused or recycled.
- B. Related Sections: The following Project Manual Sections contain requirements that relate to this section:
 - 1. DIVISION 00 SPECIFICATION SECTIONS
 - 2. DIVISION 01 SPECIFICATION SECTIONS
 - 3. 02 01 10 EXISTING LANDSCAPE MAINTENANCE
 - 4. 02 26 00 HAZARDOUS MATERIALS PROCEDURES
 - 5. SPECIFICATION SECTIONS IN THE SITE AND INFRASTRUCTURE SUBGROUP

1.2 REFERENCES

- A. Standards:
 - 1. ANSI: A10.6 American National Standards Institute

1.3 DEFINITIONS

- A. Remove: Detach items from existing site or building (s) and legally dispose or recycle off-site.
- B. Remove and Salvage to Owner: Carefully detach from existing site or building (s), in a manner to prevent damage, and deliver to Owner.
- C. Remove and Reinstall: Detach items from existing site or building (s), prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Existing item(s) within project site 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 SUBMITTALS

- A. Submit in accordance with Specification Section - SUBMITTAL PROCEDURES:
- B. Shop Drawings:
 - 1. Proposed Protection Measures - Submit report and drawings that indicates the measures proposed for protecting individuals and property for dust and noise control.
 - a. Indicate proposed locations and construction of barriers.
 - b. Indicate occupant paths of egress and travel.
 - c. Indicate how long utility services will be interrupted.
 - 2. Salvaged Item Inventory List
 - a. Indicate items to be salvaged and delivered to Owner.

1.5 CLOSEOUT SUBMITTALS

- A. Existing Warranties
- B. Pre-demolition Photographs

SELECTIVE DEMOLITION

2533

1.6 QUALITY ASSURANCE

A. Regulatory Requirements:

1. In accordance with Specification Section - REGULATORY REQUIREMENTS and the following:

SELECTIVE DEMOLITION

2533

- a. CAL/OSHA California Division of Occupational Safety and Health Administration.
 - b. CM County of Merced, codes and ordinances
 - c. EPA Environmental Protection Agency
- B. Meetings:
 - 1. Pre- Demolition: Schedule prior to the start of work.
 - a. Coordinate the work with other work being performed.
 - b. Review requirements of work performed by others that rely on substrates exposed by selective demolition work.
 - c. Identify any potential problems that may impede planned progress and proper demolition of work.
 - d. Review structural load limitations of existing structure.
 - e. Review areas where existing construction is to remain and requires protection.
 - f. Review demolition waste disposal and material recycling procedures.
 - 2. Progress: Scheduled by the Contractor during the performance of the work.
 - a. Review for proper work progress.
 - b. Identify any problems and acceptable corrective measures.
 - c. Identify any measures to maintain or regain project schedule if necessary.
 - 3. Completion: Scheduled by the Contractor upon proper completion of the work.
 - a. Inspect and identify any problems.
 - b. Establish method and procedures to maintain protections while progressing to project completion.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Cleaning, handling, and packing:
 - 1. Salvaged Items and Reinstalled Items shall be handled in such a manner as to assure that they are free from damage.
 - 2. Salvaged Items shall be cleaned and packed or cleaned and palleted.
 - 3. Reinstalled Items shall be cleaned.
- B. Storage and protection
 - 1. Salvaged Items and Reinstalled Items shall be stored in a dry, protected area.
 - 2. Salvaged Items and Reinstalled Items shall be stored above ground on level platforms, six (6) inches above ground, allowing air circulation underneath.
 - 3. Cover with protective waterproof covering providing for adequate air circulation and ventilation.
- C. Waste Management and Disposal:
 - 1. Disposal of all selective demolition items shall be per Specification Section - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL.

1.8 PROJECT CONDITIONS

- A. Environmental requirements:
 - 1. Dust control - perform site, exterior, and interior work in a manner as to minimize the spread of dust and flying particles.
 - a. Thoroughly moisten appropriate surfaces as required to prevent dust from being a nuisance to the occupants, public, and neighbors.
 - 2. Noise control - perform work in a manner as to minimize construction noise.
 - a. When a certain level of noise is unavoidable and is objectionable to the occupants of the adjacent spaces, buildings, or premises, coordinate with Owner and make arrangements to perform such work at the most appropriate time periods of the day.
- B. Existing conditions:

SELECTIVE DEMOLITION

2533

1. Examine project site and building(s) and compare it with the drawings and specifications. Thoroughly investigate and verify conditions under which the work is to be performed. No allowance will be made for extra work resulting from negligence or failure to be acquainted

SELECTIVE DEMOLITION

2533

- with all available information concerning conditions necessary to estimate the difficulty or cost of the work.
2. Conduct work so as not to interfere unnecessarily with adjacent buildings, roads, streets, drives, and walks.
 - a. Do not close or obstruct streets, alleys, walks, or passageways without permission from authorities having jurisdiction and coordinating same with immediate neighbors whose business operation may be affected.
 - b. Safety measures shall be taken to insure an uninterrupted flow of traffic around the site as required by local Police and Fire Departments
 3. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
 4. Maintain existing utilities indicated to remain in service and protect against damage during selective demolition work.
 - a. Maintain fire-protection facilities in service during the work.
 5. Demolition waste becomes the property of the Contractor.
 6. Storage or sale of removed items on-site is not permitted.
 7. Hazardous materials are present in buildings and structures to be selectively demolished. The Owner has prepared a report for the Contractor to review and use.
 - a. Hazardous material remediation is specified in Specification Section – HAZARDOUS MATERIAL PROCEDURES.

1.9 WARRANTY

- A. Existing Warranties:
 1. Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties. Notify warranter before proceeding. Existing warranties include the following:
 - a. Roofing system
 2. Notify warranter on completion of selective demolition, and obtain documentation verifying that existing system has been inspected and warranty remains in effect.

PART 2 - PRODUCTS**2.1 SELECTIVE DEMOLITION AND REMOVAL**

- A. Furnish all materials, tools, equipment, facilities, and services as required for performing the selective demolition and removal work.

PART 3 - EXECUTION**3.1 EXAMINATION**

- A. Verification of conditions:
 1. Report unacceptable conditions to the Architect. Do not begin work until unacceptable conditions have been corrected.
 2. Execution of work under this specification section shall constitute acceptance of existing conditions.
 3. Obtain all necessary permits and authorizations by regulatory agencies required to perform the Work under this Section.
 4. Verify that utilities have been disconnected and capped before starting selective demolition operations.

SELECTIVE DEMOLITION

2533

5. Verify that rooftop utilities and service piping have been shut-off prior to roof selective demolition.
6. Record existing conditions by use of Pre-demolition Photographs.
 - a. Inventory and record the condition of items to be salvaged and/or re-installed.

SELECTIVE DEMOLITION

2533

3.2 PREPARATION**A. Coordination:**

1. Before proceeding, verify plans match existing conditions.
2. Review documents of existing construction provided by Owner against existing conditions.
3. If conflicts are encountered, report it to the Architect. Then prepare recommendation(s) for correction and submit to Architect for review.
4. Coordinate work under this specification section with work specified under other sections.
5. Coordinate any utility and HVAC unit shut-down with owner 48 hours in advance of the anticipated shut-down.
 - a. Do not interrupt utilities and HVAC units serving occupied or used facilities, except when authorized in writing by the Owner.
 - b. Provide temporary service during interruptions to existing facilities, as may be required by the Owner to maintain essential services.
6. Prior to site selective demolition, review status of trees and shrubs with Architect and Owner. The Owner may wish to relocate trees or shrubs outside the limits of construction.
7. Prior to roofing selective demolition, coordinate with Owner to shut down air intake equipment and service piping in the vicinity of work.

B. Protection:**1. Structure and Property:**

- a. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings, landscape, and facilities to remain.
- b. All damage inflicted on public and private property and the property of the Owner shall be repaired or restored to the original condition prior to the start of this Work. All repair or replacement work shall be done at no additional cost to the owner.
- c. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building and site.
- d. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and other weather damage to building envelope, structure, and interior areas.
- e. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
- f. Protect and maintain utility services and mechanical/electrical systems to remain.
- g. Cover and protect furniture, furnishings, and equipment that have not been removed.
- h. Cover all air supply and return ducts to remain before proceeding with demolition work.
- i. Cover air intake louvers before proceeding with work that will affect indoor air quality.
- j. During roof selective demolition have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.

2. Temporary Shoring:

- a. Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1) Strengthen or add new supports when required during progress of selective demolition.

3.3 APPLICATION**A. General:**

1. Selective demolition shall include the removal of all components of the existing building and/or site described in the documents to be removed. Unless otherwise specified, the

SELECTIVE DEMOLITION

2533

component identified for removal shall include all materials, accessories and fabrications associated with that component.

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.
 - a. Temporarily cover opening to remain.

SELECTIVE DEMOLITION

2533

- b. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces.
- 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
- 4. When removing structural framing members, lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
- 5. Locate selective demolition equipment and demolished debris so as not to impose excessive loads on supporting walls, floors, or framing.
- 6. Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems.
- 7. Demolished items and materials that are recyclable or slated for disposal shall be promptly dealt with per Specification Section - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL.
- 8. Removed and Salvaged items:
 - a. Clean salvaged items.
 - b. Pack or crate items after cleaning. Identify contents of containers.
 - c. Store items in a secure area until delivery to Owner.
 - d. Transport item to area as designated by Owner.
 - e. Protect items from damage during transport and storage.
 - f. In addition to items indicated elsewhere, salvaged items that the Owner wants to retain in usable condition are as follows:
 - 1) All door hardware
 - 2) All unit heater and controls
 - 3) All energy management controls
 - 4) All security system devices
- 9. Removed and Reinstalled items:
 - a. Clean and repair items to functional condition adequate for intended reuse.
 - b. Pack or crate items after cleaning and repairing. Identify contents of containers.
 - c. Protect items from damage during transport and storage.
 - d. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- 10. Existing Items to Remain:
 - a. Protect construction indicated to remain against damage and soiling during selective demolition.
- B. Site Selective Demolition:
 - 1. Utility lines to be abandoned within the construction area shall be removed and stubbed off outside the limits of construction.
 - 2. Maintain existing storm drainage system to remain in functioning condition. Prevent debris from entering or blocking drains and piping. Use drain plugs specifically for this purpose. Remove drain plugs at the end of each work day.
 - 3. Refer to drawings for trees and shrubs to be removed. Protect certain trees as indicated.
 - a. Remove tops, trunks, and roots of trees and shrubs to a minimum depth of 3 feet or to a depth required to remove all roots 1/4 inch diameter and larger.
 - b. Chip removed trees, shrubs, and roots.
 - 1) Removed chipped material to recycling station.
 - 2) Recycle chipped material into mulch for this project. Refer to Specification Section - LANDSCAPE PLANTING for treatment.
 - 4. Remove debris, concrete, asphalt, and any other obstruction to the extent indicated.
 - 5. Remove all:

SELECTIVE DEMOLITION

2533

- a. Buried objects which will interfere with the Work.
- b. Irrigation lines, irrigation risers, and irrigation valves.
- c. Stand pipes.
- d. Water wells and pumps.

SELECTIVE DEMOLITION

2533

- e. Electrical service and power poles.
- 6. At building pads, site improvements, or trenching, strip topsoil which contains:
 - a. Grass, weeds, and natural vegetation to a minimum depth of **12** inches.
 - b. Stumps and roots 1/4 inch and larger.
- 7. Remove non-soil materials from topsoil, including clay lumps, gravel, trash, debris, weeds, roots, other waste materials, and objects more than 1/2 inch in diameter.
- 8. Stockpile reusable topsoil away from excavation and where work is to proceed.
 - a. Do not stockpile topsoil within drip line of remaining trees.
- 9. Non-soil materials removed from topsoil shall be separated into like materials and recycled either within the project or removed from the project site to a recycling station.
 - a. Those waste materials that are non-recyclable shall be legally disposed off of the project site.
- C. Roofing Selective Demolition:
 - 1. Maintain roof drains in functioning condition to ensure roof drainage at end of each work day. Prevent debris from entering or blocking roof drains and conductors. Use roof drain plugs specifically for this purpose. Remove roof drain plugs at end of each work day, when no work is taking place, or when rain is forecast.
 - 2. Remove existing roofing membrane and other roofing system membrane components down to the deck including flashings, copings, and roof accessories.

3.4 CLEANING

- A. Clean in accordance with Specification Section - PROJECT CLOSEOUT:
 - 1. Clean any soiled surfaces to remain immediately.
 - 2. Existing substrates shall be clean and ready for the installation of any additional materials.
 - 3. Leave site areas level and free of any ruts or debris. Appearance of earth surface shall be equal to or better than adjacent undisturbed surfaces.

END OF SECTION



August 14, 2025

Hazardous Building Materials Survey Report

**Sierra Elementary School / Professional
Development Center
1730 East Brookdale Drive
Merced, CA 95340**

Prepared for:

**Bryan Behn, Director
Facilities
Merced City School District
2105 Wardrobe Avenue
Merced, CA 95340
(209) 385-6332 | bbehn@mcsd.k12.ca.us**

Prepared By:

**Chris Chipponeri
Forensic Analytical Consulting Services
313 Banner Court, Suite B
Modesto, CA 95356
(209) 484-4648 | chris.c@facs.com**

FACS Project #PJ87706

Contents

List of Acronyms..... 1

Executive Summary 2

Introduction..... 3

Scope of Work 3

Site Characterization..... 3

Survey Methods 4

Regulations 6

Findings and Recommendations..... 8

Limitations 9

Appendix A: Asbestos Functional Space Notes,
Sample Chain-of-Custody and Laboratory
Results Report

Appendix B: Lead Paint Chip Summary, Sample
Chain-of-Custody, Laboratory Results
Report, XRF Testing Data and CDPH 8552
Form

Appendix C: Site Photos and Sample Location
Drawing

Appendix D: Certifications of Personnel and
Laboratories

List of Acronyms

AAS	Atomic Absorption Spectroscopy
ACBM	Asbestos-Containing Building Material
ACCM	Asbestos-Containing Construction Material
ACM	Asbestos-Containing Material
AHERA	Asbestos Hazard Emergency Response Act
AIHA	American Industrial Hygiene Association
CAC	California - Certified Asbestos Consultant
Cal/OSHA	California Occupational Safety and Health Association
CCR	Code of California Regulations
CFR	Code of Federal Regulation
CSST	California – Certified Site Surveillance Technician
DOSH	Department of Occupational Safety and Health
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency (EPA)
FACS	Forensic Analytical Consulting Services, Inc.
ICP	Inductively Coupled Plasma
LCP	Lead-Containing Paint
LBP	Lead-Based Paint
ND	None Detected
NESHAP	National Emissions Standard Hazardous Air Pollutants
NIOSH	National Institute for Occupational Safety and Health
NIST	National Institute of Science and Technology
NVLAP	National Voluntary Laboratory Accreditation Program
PCM	Phase Contrast Microscopy
PLM	Polarized Light Microscopy
SGS	SGS - Forensic Laboratories
TEM	Transmission Electron Microscopy
TTLC	Total Threshold Limit Concentration
XRF	X-Ray Fluorescence Spectrum Analyzer
<	Less Than Reporting Limit

Executive Summary

Forensic Analytical Consulting Services, Inc. (FACS) was retained by Merced City School District to perform an asbestos and lead paint survey at Sierra Elementary School / Professional Development Center, located at 1730 East Brookdale Drive in Merced, California. The survey included any suspect asbestos-containing materials (ACM) and suspect paints and coatings which may be disturbed during the planned renovation project. A summary list of suspect asbestos-containing materials which were identified and sampled is included in Appendix A of this report. A table reporting suspect lead-containing paints or coatings which were identified and sampled is included in Appendix B of this report. The survey was performed on July 30, 2025.

Asbestos

The following suspect material was sampled during this survey and identified to **contain** asbestos by laboratory analysis:

- **12" VFT & Mastic – Beige Streaks – Trace Chrysotile in Mastic (must handle as more than 1%)**

The following suspect materials were sampled during this survey and identified to **not contain** asbestos by laboratory analysis:

- **Carpet & Mastic – Blue/Purple Multi**
- **4" Baseboard & Mastic – Grey**
- **Tackboard over Drywall**
- **12" ACT – Pinhole Fissure**
- **Drywall – Orange Peel Texture**
- **2" Ceramic Tile & Grout – Brown**
- **4" Ceramic Tile & Grout – White/Grey**
- **12" VFT & Mastic – White/Grey Oatmeal**
- **4" Baseboard & Mastic – Blue**
- **2x4 FCP – Pinhole Fissure**
- **4" Baseboard & Mastic – Brown**
- **Concrete**

Please see Appendix A for a complete listing of materials sampled at the work areas and results from this survey. Any suspect materials not included must be assumed to be asbestos-containing materials until tested and proven not to contain asbestos.

Lead

The following paints/coatings did not contain detectable concentrations of lead above the laboratory's reporting limit:

- **White Paint on Wood Doors**
- **White Paint on Drywall Walls**
- **Blue Paint on Drywall Walls**
- **Ceramic Tiles – Brown**

All other paints contained detectable concentrations of lead by XRF analysis.

Please see Appendix B for a complete listing of paints / coatings samples at the work areas and results from this survey. Any paints not included in the survey, or paints with results of 0.00 mg/cm² by XRF analysis without confirming representative laboratory result, must be handled as lead-containing unless sampled and proven otherwise.

FACS recommends that the results of this report be incorporated into any renovation plans provided for this project for informational purposes.

Introduction

Forensic Analytical Consulting Services, Inc. (FACS) was retained by Merced City School District to perform an asbestos and lead paint survey at Sierra Elementary School / Professional Development Center, located at 1730 East Brookdale Drive in Merced, California. The survey included any suspect asbestos-containing materials (ACM) and suspect paints and coatings which may be disturbed during the planned renovation project. The survey was performed on July 30, 2025.

Scope of Work

The purpose of this survey was to identify asbestos-containing materials (ACMs) and lead-containing paints and coatings which may be disturbed during the upcoming project. The visual inspection, bulk sampling, and survey documentation were performed by Trevor Leitz. Mr. Leitz is a Division of Occupational Safety and Health (DOSH) Certified Site Surveillance Technician (CSST #19-6682) and a California Department of Public Health (CDPH) Certified Lead Sampling Technician (LRC-00003432). All work was completed under the supervision and direction of Chris Chipponeri, who is a DOSH Certified Asbestos Consultant (CAC #10-4633) and CDPH Certified Lead Inspector/Assessor (LRC-00000782), as required under California regulations. The scope of the survey and the services provided by FACS included:

- Performing a visual inspection of the project area to identify accessible suspect asbestos-containing materials (ACMs) and lead-containing paints and coatings that will be disturbed during the planned project;
- Collection of bulk material samples for asbestos laboratory analysis by polarized light microscopy (PLM);
- Performance of a lead paint survey using a SciAps x-ray fluorescence (XRF) spectrum analyzer;
- Collection of bulk paint chip samples for lead laboratory analysis using atomic absorption spectrometry (AAS);
- Ensuring the technical quality of all work by using Asbestos Hazard Emergency Response Act (AHERA) accredited Building Inspectors;
- Ensuring the technical quality of all work by using California Department of Public Health (CDPH) Certified Lead Sampling Technicians and Inspector/Assessors; and
- Consolidating data and findings into a report format.

Site Characterization

The Sierra Elementary School is a relatively modern structure constructed using standard commercial building materials. The interior finishes throughout the building include vinyl floor tile and carpet floorings, vinyl baseboards, drywall walls and ceiling finishes and associated construction mastics for the applicable materials. These materials are typical for facilities of this type and age and were observed in good condition at the time of inspection, unless otherwise noted in this report.

Survey Methods

Document Review

No previous documentation was reviewed prior to the inspection. The extent of the planned renovation project was provided by Merced City School District.

Visual Inspection

Accessible building materials were visually inspected using the methods presented in the Federal AHERA regulations (40 CFR, Part 763). AHERA inspection methodology is required to be used for inspections of K-12 schools and is generally accepted as the industry standard for all ACM inspections regardless of structure or facility type. Suspect ACMs were also physically assessed for friability, condition and possible disturbance factors.

All areas were accessible during this inspection.

Asbestos Inspection

Bulk Sample Collection

Bulk samples of identified homogeneous materials were collected in building areas that may be impacted by the planned renovation/demolition activities. Samples were collected of each separate homogeneous area. A homogeneous area is defined as a surfacing material, thermal system insulation, or miscellaneous material that is uniform in use, color and texture. Examples of homogeneous areas could include:

- Vinyl floor tiles
- False ceiling panels
- Drywall with joint compound
- Vinyl sheet flooring

The specific number of samples collected was determined by using the methods required by the Federal AHERA regulations (40 CFR, Part 763.86) as noted below:

- 1) For Surfacing Material:
 - 1,000 ft² or less - collect 3 samples
 - 1,001 to 5,000 ft² - collect 5 samples
 - 5,001 ft² or greater - collect 7 samples
- 2) For Thermal System Insulation:
 - "In a randomly distributed manner" - collect 3 samples
 - 6 linear feet of patching or less - collect 1 sample
 - cementitious pipe fittings - "In a manner sufficient to determine"
- 3) For all Miscellaneous Material:
 - Collect samples "In a manner sufficient to determine whether material is ACM (asbestos-containing material) or not ACM..."

The suspect ACMs were sampled using a knife, chisel, scraper, drill or other similar coring device suitable to the type of material sampled to cut through its entire thickness and to ensure that a cross-section of the material was obtained. The material was then placed in an appropriately labeled container

that was sealed and submitted to SGS-Forensic Laboratories for analysis. A unique sample number (e.g. PJ87706-01A) was assigned to each sample.

Bulk samples will be retained by the laboratory for one month unless otherwise instructed. After this period, the samples will be disposed of appropriately.

Bulk Sample Analysis

A total of thirty-one (31) bulk samples were collected from a total of thirteen (13) suspect materials. Bulk samples were analyzed by SGS-Forensic Laboratories (SGS) in Hayward, California. SGS is accredited by the California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP) and the National Institute of Science and Technology's (NIST) National Voluntary Laboratory Accreditation Program (NVLAP). SGS participates in the National Institute for Occupational Safety and Health (NIOSH) Proficiency Analytical Testing Program and has substantial experience in the analysis of asbestos.

All samples were analyzed using Polarized Light Microscopy with Dispersion Staining (PLM/DS) techniques in accordance with the methodology approved by the U.S. Environmental Protection Agency (EPA). The percentage of asbestos present in the samples was determined on the basis of a visual area estimation. The EPA defines asbestos-containing materials (ACM) as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM). 40 CFR Part 763 identifies the lower limit of reliable quantification for asbestos using the PLM method as approximately one percent (1%) by volume. Regulations in California (CAL/OSHA Title 8 CCR 1529) define asbestos-containing construction materials (ACCM) as those materials having asbestos content of greater than one tenth of one percent ($> 0.1\%$); therefore, for the purpose of this survey, any amount of asbestos detected will be considered positive. In addition to the percentages, the types of asbestos minerals are also reported. The PLM method is the standard method used to analyze asbestos bulk samples.

When "None Detected" (ND) appears in the laboratory results, it should be interpreted as meaning asbestos was not observed in the sample material.

Lead Inspection

The client-defined lead inspection was conducted in accordance with the CDPH Lead-Related Construction Program and modeled upon the sampling protocol described in "Chapter 7: Lead Based Paint Inspection" of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1997 Revision).

Cal/OSHA, in Title 8 California Code of Regulations (CCR) Section 1532.1, Lead in Construction Standard which implements California Labor Code 8716-6717, regulates all construction work where an employee may be occupationally exposed to lead. Paint or materials with any detectable level of lead is considered lead-containing by Cal/OSHA.

XRF Testing Methodology

Surfaces and components were surveyed for lead content utilizing a portable X-ray fluorescence (XRF) analyzer, SciAps X-550Pb, serial number 01149. The XRF analyzer contains a battery-powered x-ray cathode source which bombards tested surfaces with X-rays and gamma rays. This external energy source excites any lead atoms within the tested paint or coating, causing their atoms to emit X-ray photons with a characteristic energy profile. The instrument analyzes the emitted energy to identify and quantify the amount of lead in the tested paint or coating, with lead content reported in milligrams per square centimeter.

Testing combinations of homogeneous components in one area are representative of similar components found in other areas with similar construction and painting histories. During this survey, the inspector visually identified the painted or coated component to test, an XRF reading was collected, and the reading was documented in the XRF data table contained in Appendix B. For each test reading, the data table identifies the room equivalent/space designation, the tested component name, the substrate material, the sample location, paint/coating color, condition assessment, and the XRF result expressed as lead content by weight in milligrams per square centimeter (mg/cm^2).

Bulk Sampling Methodology

During this inspection, FACS personnel collected four (4) bulk paint chip samples for laboratory confirmation of lead-content. Each sample was scraped from the substrate it had been applied to using a knife or chisel to obtain sufficient material for analysis. Each sample was given a unique marker number, identified on a chain-of-custody, packaged, and sent via FedEx to SGS in Hayward, California for analysis. SGS is accredited by the American Industrial Hygiene Association's Environmental Lead Laboratory Accreditation Program for the analysis of lead in bulk paint chips by flame atomic absorption.

Regulations

Background

Asbestos is the name of a class of magnesium-silicate minerals that occur in fibrous form. Minerals that are included in this group are chrysotile, crocidolite, amosite, anthophyllite asbestos, tremolite asbestos, and actinolite asbestos. Although the chrysotile minerals are the most common type of asbestos found in the construction industry, all types of asbestos are regulated in the same manner. Asbestos has been used in more than 3,000 different building materials. Asbestos was added to building materials to: increase fire-resistance, insulate against heat, cold and sound, resist corrosion, and increase tensile strength. Common building materials that may contain asbestos include but are not limited to the following: floor tile, resilient sheet flooring, ceiling tile, mastics, roofing materials, fireproofing, acoustical treatments, wallboard, pipe and boiler insulations. Adverse health effects have been associated with the inhalation of airborne asbestos. However, asbestos fibers that are tightly bound in the building material, may not represent an exposure hazard, unless disturbed in such a way that releases airborne fibers (i.e., cutting, drilling, sanding, and other abrasive methods).

Building Surveys

The following is a summary of some current Federal and California State regulations which contain requirements related to the performance of building surveys for asbestos. These summaries are not intended to be all inclusive and do not contain every aspect of the regulations discussed.

U.S. EPA National Emission Standard for Hazardous Air Pollutants (NESHAPs), 40 CFR Part 61

Under the NESHAPs regulation, no visible emissions are allowed during building demolition or renovation activities which involve regulated asbestos-containing materials. For this reason, all buildings must be surveyed for asbestos-containing materials prior to demolition or renovation. The EPA, CARB, and/or the local Air Quality Management District which implements EPA actions, must be notified prior to any building demolition even if no asbestos-containing materials are present. Regulated asbestos-containing material (RACM) is defined as a) any friable material with an asbestos content of greater than one percent, or b) any non-friable material with asbestos content of greater than one percent that will, or could, become friable.

Asbestos Hazard Emergency Response Act (AHERA), 40 CFR Part 763, Subpart E

AHERA requires performance of asbestos surveys and the development of Asbestos Management Plans for all primary and secondary schools in the United States. Although this regulation applies to primary and secondary schools only, the procedures mandated under AHERA are considered the industry standard and are applied to all surveys performed by FACS unless otherwise specified by the building owner.

Worker Protection

California Assembly Bill AB3713, Health and Safety Code Division 20, Chapter 10.4, Section 25915-25924

The state of California has enacted legislation that requires building owners, employers, lessees, etc. to notify tenants, employees and contractors of the presence of asbestos in both friable and non-friable forms. In addition, preventive maintenance activities must be developed and communicated to these parties. Notification is required 15 days after the identification of ACM in the building, and annually thereafter.

Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1101 and 8 CCR 1529

The Federal and State Occupational Safety and Health Administrations (OSHA) require employers to implement specific work practices which protect workers from airborne asbestos exposure.

Building materials which contain even low levels of asbestos (<1%) can potentially generate significant concentrations of airborne asbestos fibers when disturbed. Therefore, control measures should be instituted which adequately address worker health and safety during planned renovation or demolition activities involving these materials. Cal/OSHA defines asbestos-containing construction materials as those materials having greater than one tenth of one percent asbestos (>0.1%). As stated previously, there is currently no viable method to accurately quantify asbestos at this level.

Hazardous Waste

Building materials reported to contain less than one percent (<1%) of asbestos are not considered hazardous by the U.S. EPA, and hence, may not require removal and disposal prior to demolition or renovation. Regulations may vary, however, between regional air quality management districts and/or other state agencies responsible for implementing EPA's rules. Therefore, local agencies should be contacted for specific ACM definitions and handling requirements. Cal/OSHA may also require special packaging and labeling on containers with asbestos-containing construction materials.

Composite sampling, which may potentially reduce the total asbestos content of the material, is only permitted when sampling joint compound, tape, and gypsum wallboard according to EPA's Asbestos NESHAP Clarification Regarding Analysis of Multi-Layered Systems (40 CFR Part 61 FRL-4821-7).

Lead

Cal/OSHA Lead (8 CCR 1532.1) & CDPH (Title 17)

If paints or coatings containing any detectable concentration of lead will be impacted, a project should be considered regulated by Cal/OSHA as lead-related construction (8 CCR 1532.1).

A contractor who has employees that may be occupationally exposed to lead during a project must perform an initial determination regarding worker exposures to lead, which may be based on personal air

monitoring at the start of the project or prior employee monitoring from the past 12 months under workplace conditions closely resembling the current project, that demonstrates exposures will not exceed the Cal/OSHA action level (2 micrograms per cubic meter of air). It is the contractor's responsibility to conduct their initial determination and comply with any relevant Cal/OSHA requirements.

Workers disturbing existing paints or coatings during a project must have lead awareness or action level training, depending on the initial exposure determination. Workers that will disturb paints with detectable concentrations of lead must use lead-safe work practices regardless of results of any exposure monitoring data. Disturbance of lead-containing paints or coatings must be performed within a contained area to prevent the spread and build-up of lead dust in order to comply with CDPH requirements. HEPA vacuums, dustless tools or shrouds, and/or intact removal of components should be employed to minimize lead dust generation and properly cleanup work areas following disturbance to lead-containing materials during a project. Waste generated during disturbance to lead-containing materials must be profiled in a hazardous waste determination to ascertain proper disposal requirements.

If the initial determination or initial exposure monitoring shows that workers impacting lead can be expected to be, or are shown to be, exposed to lead above 50 micrograms per cubic meter of air, workers and supervisors must have the requisite training and CDPH lead worker or supervisor certification.

The Cal/OSHA regulation was recently revised and additional requirements must be met by employers with employees that disturb lead paint. Any contractor / employer that may require workers to disturb lead-containing paints found with the project area should ensure that they are familiar and in compliance with the new revisions to the regulation.

Findings and Recommendations

Forensic Analytical Consulting Services, Inc. (FACS) was retained by Merced City School District to perform an asbestos and lead paint survey at Sierra Elementary School / Professional Development Center, located at 1730 East Brookdale Drive in Merced, California.

Asbestos

The following suspect materials were sampled during this survey and identified to **contain** asbestos by laboratory analysis:

- **12" VFT & Mastic – Beige Streaks – Trace Chrysotile in Mastic (must handle as more than 1%)**

The following suspect materials were sampled during this survey and identified to **not contain** asbestos by laboratory analysis:

- | | |
|--|--|
| • Carpet & Mastic – Blue/Purple Multi | • 4" Ceramic Tile & Grout – White/Grey |
| • 4" Baseboard & Mastic – Grey | • 12" VFT & Mastic – White/Grey Oatmeal |
| • Tackboard over Drywall | • 4" Baseboard & Mastic – Blue |
| • 12" ACT – Pinhole Fissure | • 2x4 FCP – Pinhole Fissure |
| • Drywall – Orange Peel Texture | • 4" Baseboard & Mastic – Brown |
| • 2" Ceramic Tile & Grout – Brown | • Concrete |

Please see Appendix A for a complete listing of materials sampled at the work areas and results from this survey. Any suspect materials not included must be assumed to be asbestos-containing materials until tested and proven not to contain asbestos.

The presence of asbestos-containing building materials at K-12 school sites require additional steps to be taken as part of any renovation activities. This includes for response actions, which includes removal of asbestos-containing building materials, the project be designed by an AHERA Project Designer to ensure all requirements are met by the selected abatement contractor to protect site staff and students. At the conclusion of abatement, clearance air monitoring must be performed prior to removal of abatement containment barriers and occupancy by any parties of the site or as part of a larger construction project. If the ACBMs will remain in place and not disturbed as part of the project, the presence of these materials should be noted in the site's AHERA Management Plan and noted to the site staff members, parents and any contractors working onsite moving forward.

Removal of more than 100 square feet of asbestos-containing materials must be completed by a contractor registered with DOSH as an asbestos abatement contractor. The contractor must also hold the C-22 asbestos abatement license from the CSLB to perform abatement of more than 100 square feet of asbestos-containing materials.

Workers abating asbestos-containing materials must have AHERA Worker training and one worker shall be trained to the AHERA Contractor-Supervisor level. Workers will need to use containment, work practices, and engineering controls as required by Cal/OSHA for the various classes of work that may be required to be performed. The contractor performing abatement must also file a "report of use" temporary worksite notification to the local Cal/OSHA office at least 24 hours prior to mobilizing to the site.

The US EPA NESHAP regulation requires the abatement of asbestos-containing materials that are friable or likely to become friable by forces impacting them as part of any renovation activities. If more than 160 square feet of RACM will be generated by the project, a 10-working day notification must be filed with the San Joaquin Valley Air Pollution Control District prior to work commencing onsite. Those materials that are friable, or non-friable materials made friable during removal, would need to be disposed of as hazardous (regulated) asbestos-containing material. Non-friable materials that are not made friable may be disposed of as non-hazardous asbestos-containing waste material at a landfill that will accept the waste.

See the Regulations section above for additional information regarding asbestos compliance.

Lead

The following paints/coatings did not contain detectable concentrations of lead above the laboratory's reporting limit:

- **White Paint on Wood Doors**
- **White Paint on Drywall Walls**
- **Blue Paint on Drywall Walls**
- **Ceramic Tiles – Brown**

All other paints contained detectable concentrations of lead by XRF analysis.

Please see Appendix B for a complete listing of paints / coatings samples at the work areas and results from this survey. Any paints not included in the survey, or paints with results of 0.00 mg/cm² by XRF analysis without confirming representative laboratory result, must be handled as lead-containing unless sampled and proven otherwise.

Workers that impact paints containing any detectable amount of lead must use lead-safe practices and have valid training for the method of impact to comply with Cal/OSHA, 8 CCR 1532.1. To comply with CDPH requirements, any disturbance to paints or coatings that contain lead must be completed within a contained area to prevent the creation of a lead hazard. To comply with California Department of Toxic Substance Control and Title 22 requirements, any waste streams containing lead must be profiled prior to disposal.

See the Regulations section above for additional information regarding lead compliance.

FACS recommends that the results of this report be incorporated into any renovation plans provided for this project for informational purposes.

Limitations

This investigation is limited to the conditions and practices observed, and information made available to FACS. The methods, conclusions and recommendations provided are based on FACS' judgment, expertise, and the standard of practice for professional service. They are subject to the limitations and variability inherent in the methodology employed. As with all environmental investigations, this investigation is limited to the defined scope and does not purport to set forth all hazards, nor indicate that other hazards do not exist.

Please do not hesitate to contact our office at (209) 551-2000 with any questions or concerns. Thank you for the opportunity to assist Merced City School District with promoting worker safety and a healthy environment.

Respectfully,
FORENSIC ANALYTICAL



Trevor Leitz
Environmental Health Specialist, Modesto
Cal/OSHA CSST #19-6682
CDPH LRC-00003432

Reviewed by:
FORENSIC ANALYTICAL



Chris Chipponeri
Director, Central Valley Offices
Cal/OSHA CAC #10-4633
CDPH LRC-00000782

Appendix A

Functional Space Notes, Sample Chain-of-Custody and Laboratory Results Report



Functional Space Notes
Forensic Analytical Consulting Services, Inc.

Client: Merced City School District
FACS Project Number: PJ87706

Site: Sierra Elementary School / Pro Dev Center
Date of Inspection: July 30, 2025

Table of Contents

Building A - Professional Development	1
---	---



Functional Space Notes

Forensic Analytical Consulting Services, Inc.

Client: Merced City School District

Site: Sierra Elementary School / Pro Dev Center

HMS Project Number: PJ87706

Date of Inspection: July 30, 2025

Materials		Material Class	Percent Asbestos	Hmgns Matrl #	Sampled Here?	Footage Sq/Ln/Jnts	Friable? Yes/No
Building: <u>Building A - Professional Development Center</u>		Room: <u>01 - Multipurpose Area - 39 x 30 x 9</u>					
Floor:	Carpet & Mastic - Blue/Purple Multi	MISC	None Detected	1	1A	1053 sq	
Baseboard:	4" Baseboard & Mastic - Grey	MISC	None Detected	2	2A	138 ln	
Walls:	Drywall - Orange Peel Texture	MISC	None Detected	6	6A	373 sq	
Walls:	Tackboard over Drywall	MISC	None Detected	3	3A	869 sq	
Ceiling:	12" ACT - Pinhole Fissure	MISC	None Detected	4	4A	1170 sq	
Building: <u>Building A - Professional Development Center</u>		Room: <u>02 - Men's Restroom - 14 x 13 x 8</u>					
Floor:	2" Ceramic Tile & Grout - Brown	MISC	None Detected	7		182 sq	
Walls:	4" Ceramic Tile & Grout - White/Grey	MISC	None Detected	8	8A	432 sq	
Ceiling:	12" ACT - Pinhole Fissure	MISC	None Detected	4		182 sq	
Building: <u>Building A - Professional Development Center</u>		Room: <u>03 - Women's Restroom - 14 x 13 x 8</u>					
Floor:	2" Ceramic Tile & Grout - Brown	MISC	None Detected	7	7A	182 sq	
Walls:	4" Ceramic Tile & Grout - White/Grey	MISC	None Detected	8	8B	432 sq	
Ceiling:	12" ACT - Pinhole Fissure	MISC	None Detected	4		182 sq	
Building: <u>Building A - Professional Development Center</u>		Room: <u>04 - Room 1 - 30 x 27 x 9</u>					
Floor:	12" VFT & Mastic - White/Grey Oatmeal	MISC	1 % Ch	9	9A	810 sq	No
	<i>Comment: Materials not point counted must be handled as 1%</i>						
Baseboard:	4" Baseboard & Mastic - Blue	MISC	None Detected	10	10A	114 ln	
Walls:	Tackboard over Drywall	MISC	None Detected	3	3B	1026 sq	
Ceiling:	12" ACT - Pinhole Fissure	MISC	None Detected	4	4B	810 sq	
Building: <u>Building A - Professional Development Center</u>		Room: <u>05 - Room 2 - 30 x 27 x 9</u>					
Floor:	12" VFT & Mastic - White/Grey Oatmeal	MISC	1 % Ch	9		810 sq	No
	<i>Comment: Materials not point counted must be handled as 1%</i>						
Baseboard:	4" Baseboard & Mastic - Blue	MISC	None Detected	10		114 ln	
Walls:	Tackboard over Drywall	MISC	None Detected	3		1026 sq	
Ceiling:	12" ACT - Pinhole Fissure	MISC	None Detected	4		810 sq	



Functional Space Notes

Forensic Analytical Consulting Services, Inc.

Client: Merced City School District

Site: Sierra Elementary School / Pro Dev Center

HMS Project Number: PJ87706

Date of Inspection: July 30, 2025

Materials	Material Class	Percent Asbestos	Hmgns Matrl #	Sampled Here?	Footage Sq/Ln/Jnts	Friable? Yes/No
Building: <u>Building A - Professional Development Center</u> Room: <u>06 - Room 3 - 30 x 27 x 9</u>						
Floor: 12" VFT & Mastic - White/Grey Oatmeal	MISC	1 % Ch	9		810 sq	No
<i>Comment: Materials not point counted must be handled as 1%</i>						
Baseboard: 4" Baseboard & Mastic - Blue	MISC	None Detected	10		114 ln	
Walls: Tackboard over Drywall	MISC	None Detected	3	3C	1026 sq	
Ceiling: 12" ACT - Pinhole Fissure	MISC	None Detected	4		810 sq	
Building: <u>Building A - Professional Development Center</u> Room: <u>07 - Staff Room - 19 x 14 x 8</u>						
Floor: 12" VFT & Mastic - White/Grey Oatmeal	MISC	1 % Ch	9	9B	266 sq	No
<i>Comment: Materials not point counted must be handled as 1%</i>						
Baseboard: 4" Baseboard & Mastic - Blue	MISC	None Detected	10	10B	66 ln	
Walls: Drywall - Orange Peel Texture	MISC	None Detected	6	6C	528 sq	
Ceiling: 2x4 FCP - Pinhole Fissure	MISC	None Detected	11	11A, 11B, 11C	266 sq	
Building: <u>Building A - Professional Development Center</u> Room: <u>08 - Staff Restroom - 5 x 5 x 8</u>						
Floor: 2" Ceramic Tile & Grout - Brown	MISC	None Detected	7	7B	25 sq	
Baseboard: 4" Ceramic Tile & Grout - White/Grey	MISC	None Detected	8		20 ln	
Walls: Drywall - Orange Peel Texture	MISC	None Detected	6	6B	160 sq	
Ceiling: 12" ACT - Pinhole Fissure	MISC	None Detected	4		25 sq	
Building: <u>Building A - Professional Development Center</u> Room: <u>09 - Center Office - 19 x 14 x 9</u>						
Floor: 12" VFT & Mastic - Beige Streaks	MISC	None Detected	12	12A	266 sq	
Baseboard: 4" Baseboard & Mastic - Brown	MISC	None Detected	13	13A	66 ln	
Walls: Drywall - Orange Peel Texture	MISC	None Detected	6		594 sq	
Walls: Tackboard over Drywall	MISC	None Detected	3		59 sq	
Ceiling: 12" ACT - Pinhole Fissure	MISC	None Detected	4		266 sq	
Building: <u>Building A - Professional Development Center</u> Room: <u>10 - North Office - 19 x 13 x 9</u>						
Floor: Carpet & Mastic - Blue/Purple Multi	MISC	None Detected	1	1B	247 sq	
Baseboard: 4" Baseboard & Mastic - Grey	MISC	None Detected	2	2B	64 ln	
Walls: Drywall - Orange Peel Texture	MISC	None Detected	6	6D	576 sq	
Ceiling: 12" ACT - Pinhole Fissure	MISC	None Detected	4		247 sq	



Functional Space Notes

Forensic Analytical Consulting Services, Inc.

Client: Merced City School District

Site: Sierra Elementary School / Pro Dev Center

HMS Project Number: PJ87706

Date of Inspection: July 30, 2025

Materials		Material Class	Percent Asbestos	Hmgns Matrl #	Sampled Here?	Footage Sq/Ln/Jnts	Friable? Yes/No
Building: <u>Building A - Professional Development Center</u>		Room: <u>11 - North Staff Room - 19 x 8 x 8</u>					
Floor:	12" VFT & Mastic - Beige Streaks	MISC	None Detected	12	12B	152 sq	
Baseboard:	4" Baseboard & Mastic - Brown	MISC	None Detected	13	13B	54 ln	
Walls:	Drywall - Orange Peel Texture	MISC	None Detected	6		432 sq	
Ceiling:	12" ACT - Pinhole Fissure	MISC	None Detected	4		152 sq	
Building: <u>Building A - Professional Development Center</u>		Room: <u>12 - North Staff Restroom - 14 x 7 x 8</u>					
Floor:	2" Ceramic Tile & Grout - Brown	MISC	None Detected	7		98 sq	
Baseboard:	4" Baseboard & Mastic - Brown	MISC	None Detected	13		42 ln	
Walls:	Drywall - Orange Peel Texture	MISC	None Detected	6	6E	336 sq	
Ceiling:	Drywall - Orange Peel Texture	MISC	None Detected	6		98 sq	
Building: <u>Building A - Professional Development Center</u>		Room: <u>13 - Custodian Office - 8 x 5 x 8</u>					
Floor:	Concrete	MISC	None Detected	14	14A, 14B	40 sq	
Walls:	Drywall - Orange Peel Texture	MISC	None Detected	6		208 sq	
Ceiling:	Drywall - Orange Peel Texture	MISC	None Detected	6		40 sq	

Bulk Material Analysis Request Form

Forensic Analytical Consulting Services, Inc.

Modesto
P.O. Box 576848
Modesto, CA 95356
(209) 551 - 2000
FAX: (209) 575 - 5657

Date Submitted: 07/30/25
Contact: Chris Chipponeri

Collected By: Trevor Leitz

Date(s) Collected: 07/30/25

Job ID: Merced City School District

Job Site: Sierra Elementary School / Pro Dev Center

Analysis Requested: **PLM with Dispersion Staining**
Turn Around Time: **5 DAY**

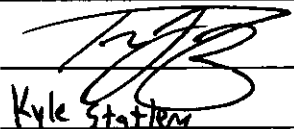
Laboratory: SGS Forensic Laboratories

Special Instructions:

Project ID / Job No: PJ87706

Bill to: Forensic Analytical Consulting Services, Inc.

Sample ID	Material Description / Location
PJ87706-1A	Carpet & Mastic - Blue/Purple Multi Building A - Professional Development Center, 01 - Multipurpose Area, SW Corner
PJ87706-1B	Carpet & Mastic - Blue/Purple Multi Building A - Professional Development Center, 10 - North Office, South Center
PJ87706-2A	4" Baseboard & Mastic - Grey Building A - Professional Development Center, 01 - Multipurpose Area, East Center
PJ87706-2B	4" Baseboard & Mastic - Grey Building A - Professional Development Center, 10 - North Office, SW Corner
PJ87706-3A	Tackboard over Drywall Building A - Professional Development Center, 01 - Multipurpose Area, North Center at Damage
PJ87706-3B	Tackboard over Drywall Building A - Professional Development Center, 04 - Room 1, West Center
PJ87706-3C	Tackboard over Drywall Building A - Professional Development Center, 06 - Room 3, NE Corner
PJ87706-4A	12" ACT - Pinhole Fissure Building A - Professional Development Center, 01 - Multipurpose Area, East Center
PJ87706-4B	12" ACT - Pinhole Fissure Building A - Professional Development Center, 04 - Room 1, South Center
PJ87706-6A	Drywall - Orange Peel Texture Building A - Professional Development Center, 01 - Multipurpose Area, NE Corner
PJ87706-6B	Drywall - Orange Peel Texture Building A - Professional Development Center, 08 - Staff Restroom, NW Corner
PJ87706-6C	Drywall - Orange Peel Texture Building A - Professional Development Center, 07 - Staff Room, SW Corner
PJ87706-6D	Drywall - Orange Peel Texture Building A - Professional Development Center, 10 - North Office, SE Corner
PJ87706-6E	Drywall - Orange Peel Texture Building A - Professional Development Center, 12 - North Staff Restroom, North Center
PJ87706-7A	2" Ceramic Tile & Grout - Brown Building A - Professional Development Center, 03 - Women's Restroom, East Center
PJ87706-7B	2" Ceramic Tile & Grout - Brown Building A - Professional Development Center, 08 - Staff Restroom, SE Corner
PJ87706-8A	4" Ceramic Tile & Grout - White/Grey Building A - Professional Development Center, 02 - Men's Restroom, NE Corner
PJ87706-8B	4" Ceramic Tile & Grout - White/Grey Building A - Professional Development Center, 03 - Women's Restroom, SW Corner

Submitted By: 

Received By: Kyle Statton

Date Submitted: 7/30/25

Date Received: 7/31/25
9:30am

Submitted Via: _____

Received Via: FX

Date Printed: 7/30/2025

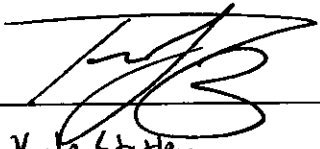
Bulk Material Analysis Request Form

Forensic Analytical Consulting Services, Inc.

Modesto
P.O. Box 576848
Modesto, CA 95356
(209) 551 - 2000
FAX: (209) 575 - 5657

Date Submitted: 07/30/25	Analysis Requested: PLM with Dispersion Staining
Contact: Chris Chipponeri	Turn Around Time: 5 DAY
Collected By: Trevor Leitz	Laboratory: SGS Forensic Laboratories
Date(s) Collected: 07/30/25	Special Instructions:
Job ID: Merced City School District	Project ID / Job No: PJ87706
Job Site: Sierra Elementary School / Pro Dev Center	Bill to: Forensic Analytical Consulting Services, Inc.

Sample ID	Material Description / Location
PJ87706-9A	12" VFT & Mastic - White/Grey Oatmeal Building A - Professional Development Center, 04 - Room 1, East Center
PJ87706-9B	12" VFT & Mastic - White/Grey Oatmeal Building A - Professional Development Center, 07 - Staff Room, NW Corner
PJ87706-10A	4" Baseboard & Mastic - Blue Building A - Professional Development Center, 04 - Room 1, South Center
PJ87706-10B	4" Baseboard & Mastic - Blue Building A - Professional Development Center, 07 - Staff Room, SW Corner
PJ87706-11A	2x4 FCP - Pinhole Fissure Building A - Professional Development Center, 07 - Staff Room, West Center
PJ87706-11B	2x4 FCP - Pinhole Fissure Building A - Professional Development Center, 07 - Staff Room, South Center
PJ87706-11C	2x4 FCP - Pinhole Fissure Building A - Professional Development Center, 07 - Staff Room, North Center
PJ87706-12A	12" VFT & Mastic - Beige Streaks Building A - Professional Development Center, 09 - Center Office, North Center
PJ87706-12B	12" VFT & Mastic - Beige Streaks Building A - Professional Development Center, 11 - North Staff Room, South Center
PJ87706-13A	4" Baseboard & Mastic - Brown Building A - Professional Development Center, 09 - Center Office, South Center
PJ87706-13B	4" Baseboard & Mastic - Brown Building A - Professional Development Center, 11 - North Staff Room, North Center
PJ87706-14A	Concrete Building A - Professional Development Center, 13 - Custodian Office, South Center
PJ87706-14B	Concrete Building A - Professional Development Center, 13 - Custodian Office, East Center

Submitted By: 

Received By: Kyle Statley

Date Submitted: 7/30/25

Date Received: 7/31/25

9:30am

Submitted Via: _____

Received Via: Ex

Date Printed: 7/30/2025

Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)
NVLAP Lab Code: 101459-0

FACS - Modesto
Chris Chipponeri
313 Banner Court
Suite B
Modesto, CA 95356

Client ID: MOD08
Report Number: B374551
Date Received: 07/31/25
Date Analyzed: 08/07/25
Date Printed: 08/07/25
First Reported: 08/07/25

Job ID/Site: PJ87706; Merced City School District 1730 East Brookdale Drive Merced CA

SGSFL Job ID: MOD08
Total Samples Submitted: 31
Total Samples Analyzed: 31

Date(s) Collected: 07/30/2025

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
PJ87706-1A	12819377						
Layer: Multicolored Carpet			ND				
Layer: Grey Backing			ND				
Layer: Tan Mastic			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Synthetic (75 %)							
PJ87706-1B	12819378						
Layer: Multicolored Carpet			ND				
Layer: Grey Backing			ND				
Layer: Clear Mastic			ND				
Layer: Grey Non-Fibrous Material			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Synthetic (60 %)							
PJ87706-2A	12819379						
Layer: Grey Non-Fibrous Material			ND				
Layer: Tan Mastic			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (Trace)							
PJ87706-2B	12819380						
Layer: Grey Non-Fibrous Material			ND				
Layer: Beige Mastic			ND				
Layer: White Non-Fibrous Material			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (Trace)							
PJ87706-3A	12819381						
Layer: Tan Fibrous Material			ND				
Layer: Paint			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (95 %)							
PJ87706-3B	12819382						
Layer: Tan Fibrous Material			ND				
Layer: Paint			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (95 %)							

Client Name: FACS - Modesto

Report Number: B374551

Date Printed: 08/07/25

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
PJ87706-3C	12819383						
Layer: White Drywall			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (20 %)							
PJ87706-4A	12819384						
Layer: Grey Fibrous Material			ND				
Layer: Paint			ND				
Layer: White Drywall			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (35 %) Fibrous Glass (15 %)							
PJ87706-4B	12819385						
Layer: Grey Fibrous Material			ND				
Layer: Paint			ND				
Layer: White Drywall			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (35 %) Fibrous Glass (15 %)							
PJ87706-6A	12819386						
Layer: White Drywall			ND				
Layer: White Joint Compound			ND				
Layer: Paint			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %) Comment: Bulk core complex sample.							
PJ87706-6B	12819387						
Layer: White Drywall			ND				
Layer: White Joint Compound			ND				
Layer: Paint			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %) Comment: Bulk core complex sample.							
PJ87706-6C	12819388						
Layer: White Drywall			ND				
Layer: White Joint Compound			ND				
Layer: Paint			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %) Comment: Bulk core complex sample.							
PJ87706-6D	12819389						
Layer: White Drywall			ND				
Layer: White Joint Compound			ND				
Layer: Paint			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (20 %) Fibrous Glass (10 %) Comment: Bulk core complex sample.							

Client Name: FACS - Modesto

Report Number: B374551

Date Printed: 08/07/25

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
PJ87706-6E	12819390						
Layer: White Drywall			ND				
Layer: White Joint Compound			ND				
Layer: Paint			ND				
Total Percentage Values of Non-Asbestos Fibrous Components:							
Cellulose (20 %) Fibrous Glass (10 %)							
Comment: Bulk core complex sample.							
PJ87706-7A	12819391						
Layer: Brown Ceramic Tile			ND				
Layer: Brown Grout			ND				
Total Percentage Values of Non-Asbestos Fibrous Components:							
Cellulose (Trace)							
PJ87706-7B	12819392						
Layer: Brown Ceramic Tile			ND				
Total Percentage Values of Non-Asbestos Fibrous Components:							
Cellulose (Trace)							
PJ87706-8A	12819393						
Layer: White Ceramic Tile			ND				
Layer: Brown Grout			ND				
Layer: Brown Non-Fibrous Material			ND				
Total Percentage Values of Non-Asbestos Fibrous Components:							
Cellulose (Trace)							
PJ87706-8B	12819394						
Layer: White Ceramic Tile			ND				
Layer: Brown Grout			ND				
Layer: Brown Non-Fibrous Material			ND				
Total Percentage Values of Non-Asbestos Fibrous Components:							
Cellulose (Trace)							
PJ87706-9A	12819395						
Layer: White Tile			ND				
Layer: Yellow Mastic			ND				
Total Percentage Values of Non-Asbestos Fibrous Components:							
Cellulose (Trace)							
PJ87706-9B	12819396						
Layer: White Tile			ND				
Layer: Yellow Mastic			ND				
Layer: Black Mastic		Chrysotile	Trace				
Total Percentage Values of Non-Asbestos Fibrous Components:							
Cellulose (Trace)							
Comment: Black mastic insufficient for further analysis							

Client Name: FACS - Modesto

Report Number: B374551

Date Printed: 08/07/25

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
PJ87706-10A	12819397						
Layer: Blue Non-Fibrous Material			ND				
Layer: Brown Mastic			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (Trace)							
PJ87706-10B	12819398						
Layer: Blue Non-Fibrous Material			ND				
Layer: Beige Mastic			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (Trace)							
PJ87706-11A	12819399						
Layer: Grey Fibrous Material			ND				
Layer: Paint			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)							
PJ87706-11B	12819400						
Layer: Grey Fibrous Material			ND				
Layer: Paint			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)							
PJ87706-11C	12819401						
Layer: Grey Fibrous Material			ND				
Layer: Paint			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (35 %) Fibrous Glass (45 %)							
PJ87706-12A	12819402						
Layer: Beige Tile			ND				
Layer: Black Mastic			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (Trace)							
PJ87706-12B	12819403						
Layer: Beige Tile			ND				
Layer: Black Mastic			ND				
Layer: Tan Mastic			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (Trace)							
PJ87706-13A	12819404						
Layer: Brown Non-Fibrous Material			ND				
Layer: Brown Mastic			ND				
Layer: White Non-Fibrous Material			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (Trace)							

Report Number: B374551
Date Printed: 08/07/25

Client Name: FACS - Modesto

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
PJ87706-13B		12819405					
Layer: Brown Non-Fibrous Material			ND				
Layer: Brown Mastic			ND				
Layer: White Non-Fibrous Material			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (Trace)							
PJ87706-14A		12819406					
Layer: Grey Cementitious Material			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (Trace)							
PJ87706-14B		12819407					
Layer: Grey Cementitious Material			ND				
Total Percentage Values of Non-Asbestos Fibrous Components: Cellulose (Trace)							

Maria E. Casper

Maria Cosper, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.
Inhomogeneous samples are separated into homogenous subsamples and analyzed individually. Analytical results and reports are generated by SGS at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by SGS to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by SGS. The client is solely responsible for the use and interpretation of test results and reports requested from SGS. This report must not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government. SGS is not able to assess the degree of hazard resulting from materials analyzed. SGS reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.

Appendix B

Lead Paint Chip Summary, Sample Chain-of-Custody, Laboratory Results Report, XRF Testing Data and CDPH 8552 Form

Lead Paint Chip Summary (Lab Report #M271065) Merced City School District – Sierra ES / Professional Development Center – HBM Survey Survey Date: July 30, 2025					
Sample Number	Component Location	Component	Color	Substrate	Analytical Results (weight percent of lead)
Pb01	Staff Room – NE Corner	Door	White	Wood	< 0.007
Pb02	Room 1 – North Side East End	Wall	White	Drywall	< 0.007
Pb03	Staff Room – South Side West End	Wall	Blue	Drywall	< 0.006
Pb04	Women's Restroom	Floor	Brown	Ceramic Tile	< 0.007



BULK SAMPLE REQUEST FORM

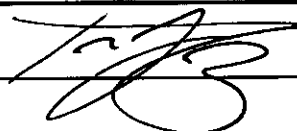
Client: FACS Modesto	Sampled by: Trevor Leitz PM: Chris Chipponeri Date: 7-30-25										
Contact: Chris Chipponeri Phone: (209) 484-4648	Special Instructions: Please email results to Chris.C@facs.com & Trevor.L@facs.com										
Site: MCSD – Sierra ES / Professional Development Center	Turnaround Time: <table border="1"> <tr> <td>1-Day</td> <td>2-Day</td> <td>3-Day</td> <td>5-Day</td> <td>Other</td> </tr> <tr> <td>☐</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> </table> Due Date and Time:	1-Day	2-Day	3-Day	5-Day	Other	☐	☐	☐	☒	☐
1-Day	2-Day	3-Day	5-Day	Other							
☐	☐	☐	☒	☐							
Client No.: MOD08 FACS Job #: PJ87706	Analysis: <table border="1"> <tr> <td>☐ PLM Standard</td> <td>☐ Point Count</td> <td>☒ Flame AA (Pb)</td> </tr> <tr> <td>☐ Other:</td> <td></td> <td></td> </tr> </table>	☐ PLM Standard	☐ Point Count	☒ Flame AA (Pb)	☐ Other:						
☐ PLM Standard	☐ Point Count	☒ Flame AA (Pb)									
☐ Other:											

Sample Number	Material Description	Sample Location	Friable	Cond.	Quantity
PJ87706 – Pb01	White Paint on Wood Door	Staff Room – NE Corner			
PJ87706 – Pb02	White Paint on Drywall Wall	Room 1 – North Side East End			
PJ87706 – Pb03	Blue Paint on Drywall Wall	Staff Room – South Side West End			
PJ87706 – Pb04	2" Ceramic Tile & Grout – Brown	Women's Restroom – NE Corner			

 WB – Wallboard JC – Joint Compound FT – Floor Tile FTM – Floor Tile Mastic BBM – Baseboard Mastic
 RSF – Resilient Sheet Flooring CT – Ceiling Tile SAAM – Spray-Applied Acoustical Material WT – Wall Texture

Friable Yes / No Good / Fair / Poor

 Shipped via: ☒ Fed Ex ☐ Airborne ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished by: 	Date & Time: 7-30-25	Received by: Kyle Statley	Date & Time: 7/31/25 9:20am Fx
Relinquished by: 	Date & Time:	Received by:	Date & Time:
			Condition Acceptable ☐ Yes ☐ No
			Condition Acceptable ☐ Yes ☐ No

Metals Analysis of Paints

(AIHA-LAP, LLC Accreditation, Lab ID #101762)

FACS - Modesto
Chris Chipponeri
313 Banner Court
Suite B
Modesto, CA 95356

Client ID: MOD08
Report Number: M271065
Date Received: 07/31/25
Date Analyzed: 08/06/25
Date Printed: 08/07/25
First Reported: 08/07/25

Job ID / Site: PJ87706; Merced City School District 1730 East Brookdale Drive Merced CA
Date(s) Collected: 7/30/25

SGSFL Job ID: MOD08
Total Samples Submitted: 4
Total Samples Analyzed: 4

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
PJ87706-PB01	30958897	Pb	< 0.007	wt%	0.007	EPA 3050B/7000B
PJ87706-PB02	30958898	Pb	< 0.007	wt%	0.007	EPA 3050B/7000B
PJ87706-PB03	30958899	Pb	< 0.006	wt%	0.006	EPA 3050B/7000B
PJ87706-PB04	30958900	Pb	< 0.007	wt%	0.007	EPA 3050B/7000B

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.



Kevin Poon, Laboratory Supervisor, Hayward Laboratory

Analytical results and reports are generated by SGS at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by SGS to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by SGS. The client is solely responsible for the use and interpretation of test results and reports requested from SGS. SGS is not able to assess the degree of hazard resulting from materials analyzed. SGS reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. Any modifications that have been made to referenced test methods are documented in SGS Standard Operating Procedures Manual. Sample results have not been blank corrected. Quality control and sample receipt condition were acceptable unless otherwise noted.

Note* Sampling data used in this report was provided by the client as noted on the associated chain of custody form.

SURVEY FOR LEAD BASED PAINT

Site Name:	Sierra Elementary School / Professional Development Center							Date:	7-30-25	
Address:	1730 East Brookdale Drive, Merced, CA 95340							FACS Job #:	PJ87706	
Start Time:	0840	Calibration:	1.03 =	1.02	1.03 =	1.04	1.03 =	1.03	Technician:	Trevor Leitz
End Time:	0920	Calibration:	1.03 =	1.01	1.03 =	1.03	1.03 =	1.02	Inspector/Assessor:	Chris Chipponeri
SciAps X-550Pb		Results in red are lead-based paint or coating.							Condition Codes: I = Intact, F = Fair, P = Poor	
No.	Sample Location		Color	Substrate	Component	Condition	XRF Result (mg/cm ²)			
1.	Common Area		Blue	Drywall	Wall	I	0.00			
2.	Common Area Restroom		White	Wood	Door Frame	I	0.00			
3.	Common Area Restroom		White	Ceramic Tile	Wall	I	0.02			
4.	Common Area Restroom		White	Ceramic Tile	Floor	I	0.00			
5.	Common Area		White	Drywall	Wall	I	0.00			
6.	Room 1		White	Porcelain	Sink	I	0.05			
7.	Room 1		White	Drywall	Wall	I	0.00			
8.	Room 2		White	Drywall	Wall	I	0.00			
9.	Room 2		White	Porcelain	Sink	I	0.03			
10.	Room 3		White	Drywall	Wall	I	0.00			
11.	Room 3		White	Porcelain	Sink	I	0.05			
12.	Staff Room		Blue	Drywall	Wall	I	0.00			
13.	Staff Restroom		White	Drywall	Wall	I	0.00			
14.	Staff Restroom		White	Wood	Door Frame	I	0.00			
15.	North Office		Blue	Drywall	Wall	I	0.00			
16.	Center Office		White	Drywall	Wall	I	0.00			

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation July 30, 2025

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☒ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address [number, street, apartment (if applicable)]		City	County	Zip Code
1730 East Brookdale Drive		Merced	Merced	95340
Construction date (year) of structure	Type of structure		Children living in structure?	
Unknown	☐ Multi-unit building ☒ School or daycare ☐ Single family dwelling ☐ Other _____		☐ Yes ☒ No ☐ Don't Know	

Section 4 — Owner of Structure (if business/agency, list contact person)

Name		Telephone number	
Merced City School District / Bryan Behn		209-385-6332	
Address [number, street, apartment (if applicable)]		City	State
2105 Wardrobe Avenue		Merced	CA
			Zip Code
			95340

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☒ No lead-based paint detected ☐ Intact lead-based paint detected ☐ Deteriorated lead-based paint detected

☒ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other _____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name		Telephone number	
Chris Chipponeri		209-551-2000	
Address [number, street, apartment (if applicable)]		City	State
313 Banner Court, Suite B		Modesto	CA
			Zip Code
			95356
CDPH certification number	Signature		Date
LRC-00000782			08/14/25

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Trevor Leitz LRC-00003432

Section 7 — Attachments

- A. A foundation diagram or sketch of the structure indicating the specific locations of each lead hazard or presence of lead-based paint;
- B. Each testing method, device, and sampling procedure used;
- C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

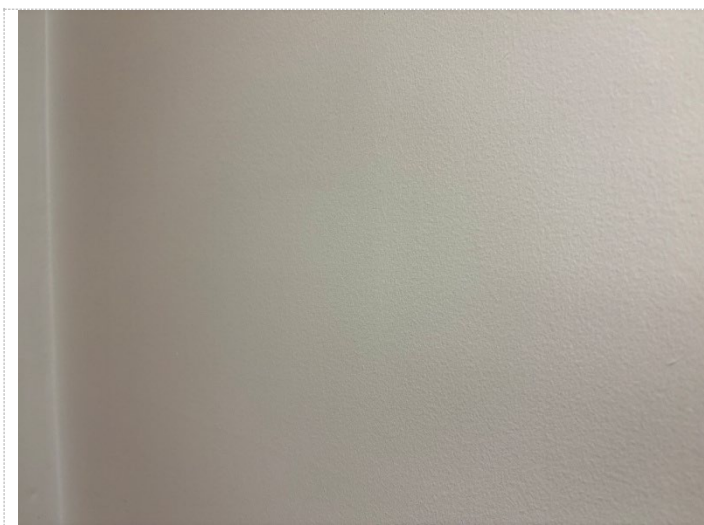
Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

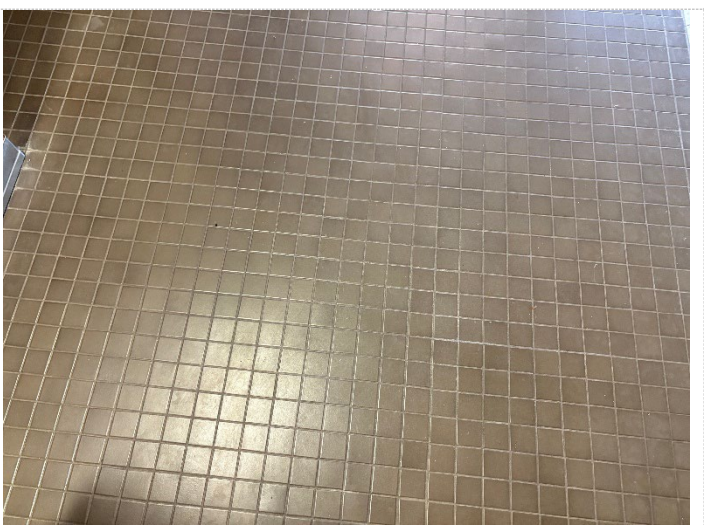
California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

Appendix C
Site Photos and Sample Location Drawing

	
Carpet & Mastic – Blue/Purple Multi	4” Baseboard & Mastic – Grey
	
Tackboard over Drywall	12” ACT – Pinhole Fissure



Drywall – Orange Peel



2” Ceramic Tile & Grout – Brown



4” Ceramic Tile & Grout – White/Grey



12” VFT & Mastic – White/Grey Oatmeal



4" Baseboard & Mastic – Blue



2x4 FCP – Pinhole Fissure



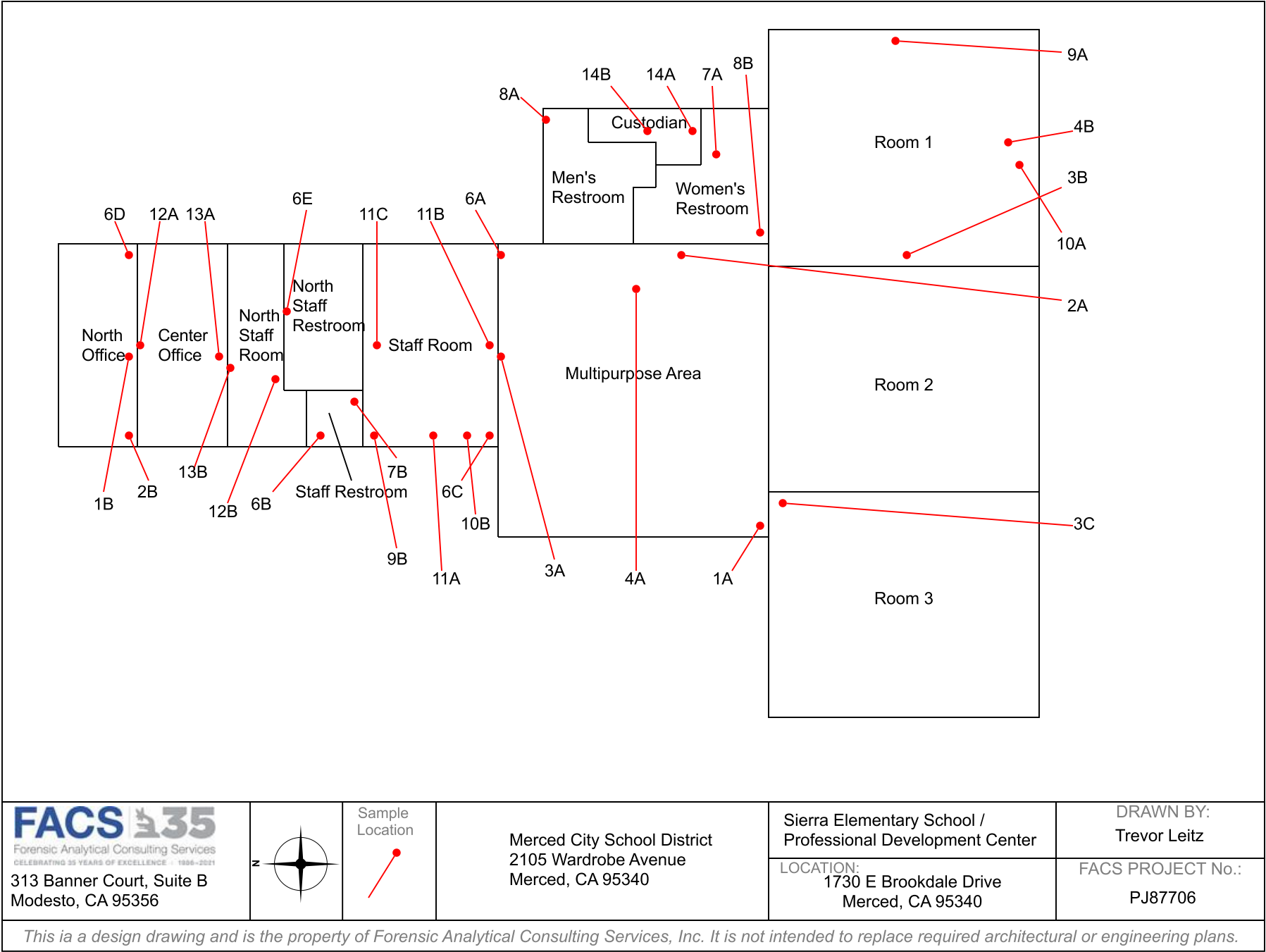
12" VFT & Mastic – Beige Streaks



4" Baseboard & Mastic – Brown



Concrete



Appendix D

Certifications of Personnel and Laboratories

DEPARTMENT OF INDUSTRIAL RELATIONS

Division of Occupational Safety and Health-Asbestos & Carcinogen Unit

1750 Howe Avenue, Suite 460

Sacramento, CA 95825

(916) 574-2993 Office <http://www.dir.ca.gov/dosh/asbestos.html> actu@dir.ca.gov

910116682T

453

Forensic Analytical Consulting Services**Trevor T Leitz****313 Banner Court, Suite B****Modesto CA 95356****January 17, 2025**

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. **To maintain your certification, you must abide by the rules printed on the back of the certification card.**

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email w any changes in your contact/ mailing information within 15 days of the change.

Sincerely,

Dean Mochrie, CAC
Senior Safety Engineer

Attachment: Certification Card

cc: File

Renewal – Card Attached (08/24)



Forensic Analytical Consulting Services, Inc.

This is to confirm that
Trevor Leitz

Has attended the Four hour

AHERA Refresher Course for Asbestos Inspectors

And has completed the requisite training for asbestos accreditation under TSCA Title II

Course Date: 09-05-2024 to 09-05-2024

Certificate Number: PETBIR20240097

Valid Until: September 05, 2025

Cal/OSHA Approval Number: CA-025-06



Fred J. Vinciguerra, Chief Executive Officer
Forensic Analytical Consulting Services, Inc.
21228 Cabot Blvd, Hayward, CA 94545
(800) 677-1483



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:



Trevor Leitz

CERTIFICATE TYPE:

Lead Sampling Technician

NUMBER:

LRC-00003432

EXPIRATION DATE:

10/14/2025

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD

DEPARTMENT OF INDUSTRIAL RELATIONS

Division of Occupational Safety and Health-Asbestos & Carcinogen Unit

1750 Howe Avenue, Suite 460

Sacramento, CA 95825

(916) 574-2993 Office <http://www.dir.ca.gov/dosh/asbestos.html> actu@dir.ca.gov

005174633C

339

May 06, 2025

Christopher J Chipponeri
1401 Louise Avenue
Modesto CA 95350

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. **To maintain your certification, you must abide by the rules printed on the back of the certification card.**

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email w any changes in your contact/ mailing information within 15 days of the change.

Sincerely,

Dean Mochrie, CAC
Senior Safety Engineer

Attachment: Certification Card

cc: File



Forensic Analytical Consulting Services, Inc.

This is to confirm that

Chris Chipponeri

Has attended the Four hour

AHERA Refresher Course for Asbestos Inspectors

And has completed the requisite training for asbestos accreditation under TSCA Title II

Course Date: 09-05-2024 to 09-05-2024

Certificate Number: PETBIR20240099

Valid Until: September 05, 2025

Cal/OSHA Approval Number: CA-025-06



Fred J. Vinciguerra, Chief Executive Officer
Forensic Analytical Consulting Services, Inc.
21228 Cabot Blvd, Hayward, CA 94545
(800) 677-1483



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:



Chris Chipponeri

CERTIFICATE TYPE:

Lead Inspector/Assessor

NUMBER:

LRC-00000782

EXPIRATION DATE:

6/20/2026

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101459-0

SGS Forensic Laboratories

Hayward, CA

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué on ISO/IEC 17025).*

2025-07-01 through 2026-06-30

Effective Dates



A handwritten signature in blue ink, appearing to read "R. K. Knech".

For the National Voluntary Laboratory Accreditation Program

National Voluntary
Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

SGS Forensic Laboratories
19743 Cabot Blvd.
Hayward, CA 94545
Ryan Sutcliffe
Phone: 702-332-1937
Email: ryan.sutcliffe@sgs.com
www.falaboratories.com

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101459-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program



AIHA Laboratory Accreditation Programs, LLC
acknowledges that
SGS North America
19743 Cabot Blvd. Hayward, CA 94545
Laboratory ID: LAP-101762

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs, LLC (AIHA LAP) accreditation to the ISO/IEC 17025:2017 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

LABORATORY ACCREDITATION PROGRAMS

☒	INDUSTRIAL HYGIENE	Accreditation Expires: October 01, 2025
☒	ENVIRONMENTAL LEAD	Accreditation Expires: October 01, 2025
☒	ENVIRONMENTAL MICROBIOLOGY	Accreditation Expires: October 01, 2025
☐	FOOD	Accreditation Expires:
☐	UNIQUE SCOPES	Accreditation Expires:
☐	BE FIELD/MOBILE	Accreditation Expires:

Specific Field(s) of Testing/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA LAP requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA LAP website (www.aihaaccreditedlabs.org) for the most current Scope.

A handwritten signature in black ink that reads 'Cheryl O. Morton'.

Cheryl O Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

**Right People
Right Perspective
Right Now**

www.facs.com