

LODI UNIFIED SCHOOL DISTRICT
Needham Elementary School
Modular Classroom(s) – Increment II

PROJECT NUMBER: 0917-8217-5
DSA #: TBD

ADDENDUM NO. 1

December 03, 2019

Owner: Lodi Unified School District
1305 E. Vine Street
Lodi, CA 95240

Architect: Rainforth Grau Architects
2101 Capitol Avenue Suite 100
Sacramento, CA 95816

Project Manager: Capital Program Management, Inc.
1851 Heritage Lane, Suite 210
Sacramento, CA 95815

This Addendum has been prepared to clarify, modify, delete, or add to the drawings and/or specifications for the above referenced project, and revisions to items listed here shall supersede description thereof prior to the above stated date. All conditions not specifically referenced here shall remain the same. It is the obligation of the Prime Contractor to make subcontractors aware of any items herein that may affect submitted bids.

Acknowledge receipt of this addendum by inserting its number and date in the bidding documents. Failure to do so may subject bidder to disqualification.

All addenda items refer to the plans and specifications unless specifically noted otherwise.

TOTAL PAGES IN THIS ADDENDUM (including attachments): 117

LODI UNIFIED SCHOOL DISTRICT

Needham Elementary School Modular Classroom(s) – Increment II

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ADDENDUM NO. 1

PART A - PROPOSAL AND CONTRACT REQUIREMENTS

1.1. The proposal date has not changed. Proposals are due **Monday, December 9, 2019 by 2:00:00 p.m.** at the District Facilities Office, 1305 E. Vine Street Lodi California 95240.

1.2. **REPLACE** paragraph 14.1.2 in Exhibit D to Facilities Lease Section 14 Warranty/Guarantee/Indemnity, 14.1 Warranty/Guarantee to read:

14.1.2 In addition to the guarantees and warranties required elsewhere, Developer shall, and hereby does guarantee and warrant all Work furnished on the job against all defects for a period of TWO (2) years after the later of the following dates, unless a longer period is provided for in the Contract Documents:

PART B - TECHNICAL REQUIREMENTS

1.3. **INSERT** Division 01 Sections into Appendix A, Attachment #2 "Technical/Performance Specifications" (Attachment 1.12).

1.4. **REFER** to Relocatable/Modular Buildings, Section 13 3423, 2.32 Electrical (G): See LUSD Design Specification Guidelines, Division 28, Section Fire Alarm Systems, fire alarm shall be Gamewell-FCI, no or-equals, or substitutions allowed, per District Resolution 2019-43.

PART C - DRAWINGS

1.5. Not used.

PART D – RESPONSES TO CONTRACTOR QUESTIONS

1.6. Item 2 of the description of the Preconstruction Services states: "The construction design documents for the modular and/or prefabricated buildings that will be installed under Increment II of the Project must have an architect's stamp affixed to them as requested by DSA." Is it the intent of this proposal request that the firms submitting proposal include fee's associated with hiring an independent Architect for each project or will RGA act as Architect of Record (AOR) and over stamp the modular design drawings.

1.6.1. The modular contractor shall provide signed and stamped drawings to the architect in compliance with the DSA 1-MR. The architect shall include these drawings in the DSA set with an over-stamped cover page, but will not individually stamp the sheets. Any specification sections required shall be included in the project manual with the cover sheet stamped and signed by the modular company's engineer.

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1.7. I'm working on the RFP/Q for Needham and I recall on a previous submission we did for LUSD we were allowed to add a tab to include resumes, insurance certificate and letter and the required signed appendix documents that did not count toward the 20 page max. Is that still the case?

1.7.1. It is acceptable for the Contractor to add the above noted documents as an Appendix.

1.8. Will the construction pad that is left, will it be dirt, concrete, or asphalt?

1.8.1. Refer to the Engineered Fill Plan, (Attachment 1.13).

1.9. Any chance of getting the project schedule for each increment in its original Microsoft Project format for inclusions in our RFQ/P submittal? Currently it is pdf only.

1.9.1. The current schedule in the Microsoft Project format will not be released. It is the expectation of the District that the Developer/Proposer should develop a schedule that will reflect the necessary activities and durations, including but not limited to, achieve DSA approval, factory construction and site build-out milestones.

PART E – List of Attachments

1.10. Pre-Proposal Conference Meeting Agenda (11-21-19) (2 pages)

1.11. Pre- Proposal Conference Sign-In Sheet (11-21-19) (1 page)

1.12. DIV 01 Documents (110 pages)

1.12.1. Section 01 3119 – Project Meetings

1.12.2. Section 01 3200 – Construction Progress Documentation

1.12.3. Section 01 3300 – Submittal Procedures

1.12.4. Section 01 3516 – Alteration Project Procedures

1.12.5. Section 01 3543 – Environmental Procedures

1.12.6. Section 01 4213 – Abbreviations & Acronyms

1.12.7. Section 01 4216 – Definitions and Standards

1.12.8. Section 01 4516 – Field Quality Control Procedures

1.12.9. Section 01 4523 – Testing & Inspection Services

1.12.10. Section 01 5000 – Temporary Facilities and Controls

1.12.11. Section 01 6116 – Volatile Organic Compound (VOC) Restrictions

1.12.12. Section 01 7419 – Construction Waste Management and Disposal

1.12.13. Section 01 7419A – Contractor's Construction Waste and Recycling Plan

1.12.14. Section 01 7419B – Contractor's Reuse, Recycling, and Disposal Report

1.12.15. Section 01 7700 – Closeout Procedures

1.12.16. Section 01 7836 – Warranties

1.12.17. Section 01 8113.10 – Sustainable Design Requirements

1.13. Engineered Fill Plan (1 page)

End of Addendum



Lodi Unified School District
RFQ/P for Lease-Leaseback Preconstruction and Construction Services
For Needham Elementary School
Modular Classroom(s) Project – Increment II
&
Modular MPR Project – Increment III

MANDATORY PRE-PROPOSAL CONFERENCE MEETING AGENDA

Date: November 21, 2019 at 2:30pm

I. Meeting Called to Order

II. Introduction of Project Team members:

- A. District Representatives: Vickie Brum, Katie Madzier
- B. Capital Program Management; Mark Rosson, Sharon Thomas, and Craig Dooling
- C. Rainforth Grau Architects: Jennifer Huang

III. Project Description/Criteria Documents:

- A. **Modular Classroom(s) – Increment II:** BASE PROJECT: This project consists of the Construction of a one-story modular building of approximately 7,680 square feet with (7) seven classrooms, boys' and girls' toilet rooms, electrical room, and custodial room.
 - ADD ALTERNATE NO. 1 PROJECT: This Add Alternate No. 1 project consists of the Construction of an additional one-story modular building of approximately 1,920 square feet with (2) two classrooms.
 - ADD ALTERNATE NO. 2 PROJECT: This Add Alternate No. 2 project consists of the Construction of an additional (2) classrooms of approximately 1,920 square feet as an addition to Add Alternate No. 1.
 - This project will also include: fire alarm, electrical systems, mechanical systems, data and communication infrastructure, casework, and building signage. Additionally, all utilities shall be extended to tie into site utilities, including domestic water, sewer, storm drainage, power and communications, five feet outside building.
- B. **Modular MPR – Increment III:** This project consists of the Construction of a modular multipurpose building of approximately 7,604 square feet with kitchen, multipurpose room, physical education room, platform, boys' and girls' toilet rooms, staff toilet room, electrical room, storage and custodial room. This project will also include: fire alarm, electrical systems, mechanical systems, data and communication infrastructure, and building signage. Additionally, all utilities shall be extended to tie into site utilities, including domestic water, sewer, storm drainage, power and communications, five feet outside building.

IV. Schedule of Events:

- A. Questions due by Tuesday, November 26, 2019 by 4:00 p.m. (See Schedule)
- B. Final Proposals Due by December 9, 2019
 - a. Modular Classrooms – Increment II by 2:00:00 PM
 - b. Modular MPR – Increment III by 3:00:00 PM
- C. Release of shortlisted respondents and interview notifications by December 13, 2019
- D. Interviews of shortlisted respondents week of December 16th – 20, 2019
- E. Notice to selected respondent(s) to start negotiation by December 23, 2019
- F. Board Approval February 18, 2020 (Tentative)

V. Master Project Schedule Review:

- A. Classroom & MPR Agency Review and Approval Phase end by October 23, 2020
- B. Classroom & MPR GMP Phase and NTP end by November 4, 2020
- C. Construction Classrooms:
 - a. (Increment I) Sitework Phase I finished by September 22, 2020 (by others)
 - b. Classroom Sitework Demo/Pad Prep start by November 12, 2020, end by November 25, 2020
 - c. Classroom Factory Construction end by December 9, 2020
 - d. Classroom Building Foundations end by January 20, 2021
 - e. Classroom Site Build-Out end by July 14, 2021
 - f. Classroom Building Construction Finished by August 4, 2021
 - g. (Increment I) Sitework Remaining Hardscape Classrooms start by August 5, 2021, end by September 1, 2021 (by others)
- D. Construction MPR:
 - a. (Increment I) Sitework Phase I finished by September 22, 2020 (by others)
 - b. MPR Sitework Demo/Pad Prep start by November 12, 2020, end by December 9, 2020
 - c. MPR Factory Construction end by March 3, 2021
 - d. MPR Building Foundations end by March 3, 2021
 - e. MPR Site Build-Out end by October 27, 2021
 - f. MPR Building Construction Finished by November 17, 2021
 - g. (Increment I) Sitework Remaining Hardscape MPR start by November 18, 2021, end by February 2, 2022 (by others)

VI. Construction Budget:

- A. Expected cost range for design and construction is;
 - a. Modular Classroom(s) – Increment II: \$3,328,000.00
 - b. Modular MPR – Increment III: \$4,865,000.00

VII. Owner Controlled Insurance Program (OCIP)

VIII. RFQ Submittal Requirements, Procurement Process, and Evaluation:

- A. PQBids Pre-Qualification process
- B. DVBE Requirement
- C. Submit Qualifications
- D. RFQ/Ps will be evaluated based on the best value selection process
- E. Interviews

IX. Questions

X. Adjournment

Send written inquiries to: Vickie Brum, Planning Analyst (vbrum@lodiUSD.net)
By Tuesday, November 26, 2019 by 4:00 p.m.

Needham Elementary School Modular Classroom(s)
Thursday, November 21, 2019
2:30 PM

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PART 1 - GENERAL

1.1 INCLUSION OF OTHER CONTRACT DOCUMENTS

- A. Appendix B and Division 1 are fully applicable to this Section, as if repeated herein.

1.2 GENERAL

- A. The Architect shall make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies to the Owner, Project Inspector, Contractor, participants, and others affected by the decisions made.
- B. Attendance required: Project Superintendent, Project Manager (if any), major Subcontractors (as requested), Architect, Project Inspector, and others as appropriate to the meeting topics.

1.3 PRE-CONSTRUCTION MEETING

- A. The Architect will schedule a pre-construction meeting upon issuing a notice of intent to award the contract. Agenda may include discussion of the following items:
 - 1. Temporary facilities and use of the site.
 - 2. Schedule of values.
 - 3. Construction schedule.
 - 4. Designation of personnel representing the parties to the contract; lines of communication.
 - 5. Submittals; submittal schedule.
 - 6. Record drawings.
 - 7. Progress payments.
 - 8. Change orders and time extensions.
 - 9. Inspection and testing.
 - 10. Accepted alternates.

1.4 WEEKLY PROJECT MEETINGS

- A. The Architect will schedule and run weekly project meetings throughout the project to review the short-term project schedule and to discuss issues requiring resolution. It is the duty of the Contractor to attend, participate in, and comply with the agreements reached and direction set at these meetings.

1.5 MONTHLY MEETINGS

- A. The Architect shall schedule and run monthly meetings for the purpose of assessing progress, approving payment, resolving problems, and addressing mid-range and long-range scheduling issues.

PROJECT MEETINGS
SECTION 01 3119
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Addendum 01

1.6 SPECIAL MEETINGS

- A. The Architect may occasionally schedule special meetings for the purpose of discussing work requiring a significant coordination effort or for resolving issues which require more attention than they can be given in the regularly scheduled meetings. The Contractor shall attend these meetings along with representatives of subcontractors, suppliers, and/or manufacturers when appropriate for the subject matter to be discussed.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

- END OF SECTION -

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Last Updated: May 5, 2009

**CONSTRUCTION PROGRESS
DOCUMENTATION
SECTION 01 3200
18-1366
Addendum 01**

PART 1 - GENERAL

1.1 INCLUSION OF OTHER CONTRACT DOCUMENTS

- A. Appendix B and Division 1 are fully applicable to this Section, as if repeated herein.

1.2 REQUIREMENTS INCLUDED

- A. The Contractor shall be responsible for planning, scheduling and reporting the progress of the Work. Planning, scheduling and reporting will incorporate the input of the various Subcontractors, Suppliers, Manufacturers, etc., that are responsible to the Contractor of the Work.
- B. The Contractor shall submit a 60 Day Interim Schedule. Submit Interim schedule prior to the initial pay application. No payment will be made to the Contractor until this schedule is approved by the District.
- C. The Contractor shall submit to the Construction Manager a detailed Construction Schedule for his contract work pursuant to the requirements of this section. The Construction Schedule shall define operations and procedures required to bring the entire work to completion within the Contract time frame as specified, shall incorporate all other provisions contained herein, and shall be submitted prior to the General Contractor's second application for payment. No further payment will be made to the Contractor until this schedule is approved by the District.
- D. The Contractor shall prepare and submit Short Interval Schedules.
- E. It is the intent of this specification to provide a means by which to insure timely completion of the work of this contract. It is understood that the work included in this Contract is complex and will require careful preparation and planning to complete in a timely manner.
- F. Approval and/or acceptance of the schedule by the Owner and Architect is not to be construed as approval of the contractor's methods nor shall it relieve the contractor from full responsibility for the proper scheduling and sequencing of the work.

1.3 60 DAY INTERIM SCHEDULE

- A. The 60 Day Interim Schedule shall include the Contractor's detailed work plan for the first 60 days of the contract and shall include all major milestones occurring during this period.
- B. Schedule shall concur with corresponding activities included in the Construction Schedule and shall dovetail thereto.

**CONSTRUCTION PROGRESS
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1.4 CONSTRUCTION SCHEDULE

- A. Schedule Restraints: Construction Schedule shall incorporate the schedule milestones indicated in these contract documents.
- B. Scheduling Software: Contractor shall use a computerized critical path method (CPM) software, "Primavera Project Planner" or approved equal. In addition, the Contractor shall provide a means of uploading the Contract Schedule into the Construction Manager's software by use of files on a USB drive.
- C. The Construction Schedule shall be a detailed time precedent diagram prepared by the General Contractor's own "in-house" supervisory personnel. In the event the Contractor does not have CPM and/or computer capability, a CPM Consultant acceptable to the District may be used to augment the Contractor's supervisory personnel. It is intended that maximum input planning shall be provided by the Contractor's supervisory personnel. The Contractor warrants that the Construction Schedule, produced with the assistance of the Contractor's CPM Consultant, is the Contractor's committed plan to complete all work within the Contract Time and assumes full responsibility for the prosecution of the work as shown.
- D. The Contractor shall utilize the Construction Schedule in planning, scheduling, coordinating, performing and controlling the work under this Contract (including all activities of subcontractors, assigned contractors, equipment vendors and suppliers).
- E. The Construction Schedule, upon acceptance, shall become the basis for determining schedule compliance, for determining the impact of changes to the Contract and delays in the work.
- F. Contractor's Responsibility: Failure of the Contractor to include any element of work in the Construction Schedule, or any inaccuracy in the Construction Schedule, will not relieve the Contractor from the timely completion of all work in accordance with the contract documents.
- G. Float time or slack time is not for the exclusive benefit or use of either the Owner or the Contractor, but is a resource available to both parties.
- H. Activities shall be cost loaded to correspond to the Schedule of Values (refer to Section 01 3300). The sum of all cost loaded activities shall equal the sum of the Schedule of Values.
- I. Activities shall be manpower loaded.
- J. No activities shall have a duration longer than fifteen work days, with the exception of fabrication and procurement activities, unless otherwise approved by the Construction Manager. Activity durations shall be the total number of working days required to perform that activity including consideration of weather impact.
- K. Activities shall be detailed to show a plan for completion of each stage of work.

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- L. Indicate dependencies (and/or relationships) and logic between activities.
- M. Activities shall be assigned a responsibility code corresponding to the subcontractor performing the work.

1.5 SHORT INTERVAL SCHEDULE (THREE WEEK SCHEDULES)

- A. Short Interval Scheduling shall be used throughout the period of construction.
- B. The Short Interval Schedule shall be a three week projection.
- C. Schedule shall contain sufficient detail to evaluate daily milestones and manpower / equipment deliveries and installations shall correspond to activities in the Construction Schedule. Schedule shall list all activities within the three week period.
- D. Schedule shall be updated and submitted weekly. Eight (8) copies shall be submitted.
- E. Contractor shall review and discuss schedule activities at the weekly construction meetings.

1.6 ADMINISTRATION

- A. Submit Construction Schedule prior to second pay application as indicated.
- B. Update Construction Schedule as needed, but not less than monthly.
- C. The Contractor shall submit an update of the Construction Schedule every three months, and after major work sequence revisions.
- D. Construction Schedule submittals shall include:
 - 1. One reproducible CPM diagram and three prints.
 - 2. Computer diskette with schedule data files in a form that can be up loaded for use with Construction Manager's software.
 - 3. Schedule logic report listing activities, their early/late and actual start and actual finish dates, durations, percent complete, float and logic relationships of all activities sorted by early start.
- E. Additional reports and schedules required to obtain the status of the project.
- F. Upon request of the Construction Manager, the Contractor shall participate in the review and evaluation of the Construction Schedule. Any revisions deemed necessary or desirable as a result of this review shall be incorporated into the Construction Schedule and resubmitted within ten (10) calendar days after such review.
- G. The Contractor agrees that whenever it becomes apparent from the current update of the Construction Schedule that any milestone completion dates or contract completion dates will not be met, the Contractor will take some or all of the following actions (and any others as may be deemed necessary) at no additional cost to the Owner:

**CONSTRUCTION PROGRESS
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1. Increase construction manpower in such quantities and crafts as will substantially eliminate the lag in scheduled progress.
2. Increase the number of shifts per work day, work days per week, or amount of construction equipment, or any combination of the foregoing, sufficient to substantially eliminate the lag in the scheduled progress.
3. Re-schedule activities to achieve maximum practical activity concurrence.
4. Those actions determined necessary to re-establish the original scheduled progress shall be incorporated into the next update of the Construction Schedule. Should the results of the planned corrective actions prove insufficient, additional corrective actions shall be taken.
5. The submission of an amended schedule will not relieve the Contractor of the responsibility to notify the Owner in writing of all experienced delays or anticipated delays in the prosecution of the work.

1.7 DELAYS AND TIME EXTENSIONS

- A. When the Owner initiates a change which has the potential to impact the stipulated completion date or the milestone dates, the Contractor shall prepare a network window, based upon the current Construction Schedule, to reflect the impact of the change. After the network window has been agreed upon and the Contractor has been authorized to proceed with the change, the network window shall be incorporated into the Construction Schedule.
1. Minor delays: Minor delays caused by parties other than the Contractor, such as the Owner, Architect, or Construction Manager, will not be considered critical path delays and will not result in a time extension to the project schedule. Minor delays shall be defined as delays due to the need for review, clarifications, consideration, detailing, etc. which typically do not last more than 48 hours, are addressed promptly and solved without significant changes to the work, as determined solely by the Architect. Such items which may cause delay must be identified by the Contractor at the time of origin.
 2. Other delays: Other delays caused by unknown or unforeseen conditions or significant changes or modifications requested by or required by the Owner, Architect or DSA, will be permitted only if promptly submitted, reviewed and approved by the Architect and Owner. Such delays may result in time extensions to specific work or areas of work only, and not to other unaffected portion of the project. Such delays must directly affect the critical path of the work, be shown as unavoidable and be unable to be made up through rescheduling
- B. Contractor shall prepare and account for adverse weather conditions pursuant to the following data. Rain days include rain fall of more than .245 inches per 24 hour period. Contractor shall account for all impacts of the indicated rain days, including subsequent inefficiencies such as mud days. Time extensions will be granted for rain days in excess of the average days indicated. Time extensions will not be granted for rain days noted or subsequent inefficiency days rated to such rain days.

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Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
7	5	6	2	1	0	0	0	0	1	5	6

- C. Time extensions will be granted only to the extent that the critical path of the Construction Schedule is impacted due to such delays, through no fault of the Contractor and such delay is demonstrated and acknowledged by the CM.
- D. Contractor shall notify the Construction Manager, in writing, within 2 days of the onset of any conditions which effect the Contractors schedule. The CM shall review the conditions indicated and shall provide remedy to the Contractor pursuant to the conditions herein
- E. When contractor falls more than ten days behind Construction Schedule, Contractor shall prepare a network window to reflect recovery efforts. Receipt of the recovery schedule will be required prior to processing the current month's payment application.

1.8 DEFAULT

- A. Failure of Contractor to substantially comply with requirements of this Section shall constitute reason that Contractor is failing to prosecute work with such diligence as will ensure it completion with Contract times and shall be considered grounds for termination or other remedy pursuant to the terms of this contract.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

- END OF SECTION -

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Last Updated: September 6, 2005*

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Requirements for the following:
 - a. Electronic Data Transfer.
 - b. Substitutions: Specific procedures for submission and approval of products other than those specified or noted on the Drawings.
 - c. Procedures for processing of Contractors "Requests for Interpretation" (RFI) questions.
2. Procedures to be followed in preparing and submitting the following:
 - a. Subcontractor List.
 - b. Progress Schedule.
 - c. Schedule of Values.
 - d. Shop Drawings.
 - e. Product Data/Material Lists.
 - f. Samples.
 - g. Requests for Information (RFI).
 - h. Deferred Approvals.
 - i. Record Drawings.
 - j. Certifications including those required for material VOC content.
 - k. Maintenance/Operating Manuals.
 - l. Warranties and Extended Guarantees.
 - m. Extra Stock.
3. Substitution Procedures: Specific requirements for submission and approval of products other than those specified or noted on the Drawings.
4. Procedures for processing of Contractors "Requests for Interpretation" (RFI) questions.
5. Electronic Data Transfer.

1.2 RELATED REQUIREMENTS

- A. Section 01 6116, Volatile Organic Compound (VOC) Restrictions; "Accessory Material VOC Content Certification Form."
- B. Section 01 7700, Closeout Procedures.
- C. Section 01 7836, Warranties; guarantee and warranty forms.
- D. Section 01 8113, Sustainable Design Requirements, for CAL-Green general requirements and procedures.

SUBMITTAL PROCEDURES

SECTION 01 3300

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- E. Test reports: Pertinent Specification Sections (by testing lab).
- F. Individual requirements for submittals also are described in other Sections of these Specifications.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals.
- B. Informational Submittals: Written and graphic information and physical samples indicated in individual Specification Sections as informational submittals that do not require Architect's responsive action.
- C. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. General;
 - 1. Shop drawings, product data, and samples are in no case to be considered Contract Documents but are to be treated only as instruments of convenience and facility to further the progress of the Work.
 - 2. Miscellaneous systems not specifically specified but installed to meet code requirements or for other reasons are subject to Architect's review prior to installation.
- B. Shop drawings, product data, samples and supporting data shall be prepared by Contractor or its suppliers but shall be submitted to Architect by Contractor as the instruments of the Contractor.
- C. Coordination of Submittals:
 - 1. Before submitting a shop drawing or any related material to Architect, Contractor shall: review each such submission for conformance with the means, methods, techniques, sequences, and operations of construction, and safety precautions and programs incidental thereto, which are the sole responsibility of the Contractor; approve each such submission before submitting it; and so stamp each such submission before submitting it. By affixing the Contractor's signature to each submittal, the Contractor certifies that this coordination has been performed.
 - 2. Architect shall assume that no shop drawing or related submittal comprises a variation unless the Contractor advises the Architect otherwise via a written instrument which is acknowledged by the Architect in writing.
- D. Grouping of Submittals:

1. Unless otherwise specified, make submittals in groups containing all associated items to assure that information is available for checking each item when it is received.
 2. Partial submittals may be rejected as not complying with the provisions of the Contract. The Contractor may be held liable for delays so occasioned.
- E. Architect will check submittals for conformance with design concepts of project. Approval by Architect covers only such conformance. Effort will be made by Architect to discover any errors, but responsibility for accuracy and correctness of submittals shall be with the Contractor.
- F. Approval of submittals will be on a general basis only and shall not relieve the Contractor from their responsibility for proper fitting and construction of the Work, nor from furnishing materials and labor required by the Contract which may not be indicated on the submittals when approved.
- G. No portion of the work requiring submittals shall be commenced until the submittal for that portion of the work has been approved by Architect. All such portions of work shall be in accordance with the approved submittals. Any work performed without approved submittals will be done so at the Contractor's own risk. Work found not to be in compliance with the approved submittals shall be removed and corrected at the Contractor's own expense.
- H. The Contractor shall make corrections required by Architect and shall resubmit as required by Architect the required number of corrected copies of shop drawings, product data, or new samples until approved. Contractor shall direct specific attention in writing or on resubmittals to revisions other than the corrections required by the Architect on previous submissions. Professional services required for more than two (2) re-reviews of required submittals of shop drawings, product data, or samples are subject to charge to the Contractor.

1.5 ELECTRONIC DATA TRANSFER

- A. Requests for Electronic Data will be considered upon receipt of written request by the Contractor accompanied by a signed copy of the Electronic Data Request Form (included with this section). Request should clearly outline specific Drawings desired and the intent of the request.
1. Submit Electronic Data Request Form on standard form.
 2. Allow 72 hours minimum for review and consideration by Architect.
- B. Electronic data files are not a part of the contract documents, but rather a convenience for the Contractor in preparation of his required submittals and layout efforts. Electronic files do not alter the content or meaning of the hard copy documents which may be a part of the Contract Documents.
- C. The electronic data files will remain the property of the Architect, shall not be used for any other purpose than that purpose stated in the Electronic Data Request Form, and shall not be released by the Contractor or any subcontractor to any other party without written consent from the Architect.

SUBMITTAL PROCEDURES

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- D. The electronic data files are distributed for reference only. Transferring such files can alter, delete or change original information. Accuracy of the data cannot be guaranteed as correct or complete and the Contractor accepts full responsibility for inaccuracies, regardless of cause.
- E. The hard copy documents, including addenda and subsequent written changes to the documents, represent the complete work of the Contract. Electronic files should be cross-referenced to the Contract Documents by the user and verified from that the information included contains the necessary Contract information. It is the Contractor's responsibility to make any changes or revisions to the electronic data files as necessary.
- F. Architect may, at his complete discretion and without explanation, approve or deny requests for electronic data.

1.6 SUBSTITUTIONS

- A. Architect's Approval Required:
 - 1. Contract is based on materials, equipment and methods described in Contract Documents. Substitutions will not be reviewed and approved prior to the award of the contract.
 - 2. Architect will consider proposals during the submittal process for substitution of materials, equipment and methods only when such proposals are accompanied by full and complete technical data and other information required by Architect to evaluate proposed substitution. Substitution shall be submitted with completed Substitution Request Form, included with this section.
 - 3. Do not substitute materials, equipment or methods unless such substitution has been specifically approved for this work by Architect.
- B. "Or Equal": Whenever, in Contract Documents, any material, process or specified patent or proprietary name and/or by name of manufacturer is indicated, such name shall be deemed to be used for purpose of facilitating description of material and/or process desired, and shall be deemed to be followed by the words "or equal" and Contractor may offer any material or process which shall be equal in every respect to that so indicated or specified; provided, however, that if material, process or article offered by Contractor is not, in opinion of Architect, equal in every respect to that specified, then Contractor shall furnish material, process or article specified or one that in opinion of Architect is equal thereof in every respect.
- C. "No Substitutions": Items indicated as "No Substitutions" shall be provided as specified and no alternates will be allowed. These items are required either due to standards implemented by the Owner or to match materials recently installed by others.
- D. Coordination: Approval of substitution shall not relieve Contractor from responsibility for compliance with requirements of Drawings and Project Manual, and Contractor shall be responsible at his own expense for any changes in other parts of its own work or work of others which may be caused by approved substitution.
- E. DSA Approval: Substitutions of certain items may cause such items to require a Deferred Approval by DSA. Should a DSA Deferred Approval be required, the Contractor shall

provide information and documents necessary to complete the Deferred Approval process without any additional costs to the Owner, including engineering, calculation and modification of substitute products.

PART 2 - SUBMITTALS

2.1 SUBCONTRACTOR LIST

- A. Provide a typed list of Subcontractors within 5 days of notice of the award of contract. Include Subcontractor name, address, phone number, license number and trade.

2.2 SCHEDULE OF VALUES

- A. Before first Application for Payment, submit for Architect's approval a Schedule of Values of various portions of work, aggregating total Contract sum, divided so as to facilitate payment to subcontractors, prepared in such form as Architect and Contractor may agree upon, and supported by such data to substantiate its correctness as Architect may require.
 - 1. Breakdown shall include separation of sitework from building work for main categories including electrical, plumbing, concrete, etc. Separations shall also be provided for each building of a multiple building contract. Include proper share of overhead and profit with each item in Schedule of Values.
 - 2. This Schedule, when approved by Architect, shall be used as basis for Contractor's applications for payment. Payment will not be released until a Schedule of Values is accepted.
- B. Schedule of Values shall appear similar to the following list and generally following the Table of Contents of this Project Manual as the format for listing component items. It shall be detailed at least as shown and portions shall not be more largely grouped so as to reduce its length unless appropriate to the scope of the Work. Mobilization/Start-up is limited to 2 percent on contracts greater than \$1,000,000 and 4 percent on contracts less than \$1,000,000. Contract closeout to be a minimum of **2 percent**.
 - 1. Mobilization/Start-up.
 - 2. Temporary Facilities.
 - 3. Concrete Reinforcement.
 - 4. Building Concrete.
 - 5. Self-Leveling Concrete Floor Underlayment. (Hydraulic Cement Underlayment)
 - 6. Concrete Masonry Units.
 - 7. Structural Steel/Metals.
 - 8. Lumber.
 - 9. Trusses.
 - 10. Rough Hardware.
 - 11. Millwork/Trim.
 - 12. Waterproofing.

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13. Insulation.
14. Single Ply Roofing.
15. Metal Roofing.
16. Roof Hatches.
17. Caulking and Sealants.
18. Hollow Metal Doors and Frames.
19. Wood Doors.
20. Finish Hardware.
21. Glass and Glazing.
22. Portland Cement Plastering.
23. Gypsum Board.
24. Tiling.
25. Acoustical Ceilings.
26. Finish Flooring.
27. Painting and Wall Coverings.
28. Markerboards/Tack Boards.
29. Signage.
30. Toilet Compartments.
31. Toilet Accessories.
32. Fire Extinguishers and Cabinets.
33. Kitchen Equipment.
34. Window Coverings.
35. Plumbing – Building.
36. HVAC/Sheet Metal.
37. Electrical – Building.
38. Grading.
39. Paving.
40. Asphalt Striping.
41. Chain Link Fencing.
42. Site Concrete.
43. Ornamental Metal Fence.
44. Landscaping – Irrigation.
45. Landscaping – Planting.
46. Electrical – Site.
47. Plumbing – Site.
48. Labor/Supervision.
49. Cleanup.
50. Contract Closeout.

2.3 SUBMITTAL SCHEDULE

- A. Contractor shall prepare and submit to Architect a "Submittal Schedule" when required by the General Conditions showing scheduled dates of submittals and date required for return of submittals to Contractor.
- B. Contractor shall provide in Schedule the minimum specified working days for Architect to review and check submittals provided it is not a deferred approval item. Based on the number and complexity of submittals at any one time, Architect's review period may be longer than the days specified.
- C. Dates on "Submittal Schedule" shall be agreed upon by both Architect and Contractor.

2.4 PROJECT DIRECTORY

- A. After execution of the Contract but prior to commencement of Work, Contractor shall submit to Architect a Project Directory listing subcontractors and vendors on the Project and giving a brief description of their scope of work, firm name, contact person, address, phone number, e-mail address, and fax number if used.

2.5 SHOP DRAWINGS

- A. Submit shop drawings as a copy of the original set maintained by the Contractor. Shop drawings are to include the name of the project, the name of Contractor and are to be numbered consecutively. Provide legible and complete copies in every respect. Provide quantity as described below. Do not reproduce the Contract Drawings in lieu of Contractor or subcontractor produced shop drawings.
- B. If shop drawings show variations from Contract requirements because of standard shop practice or other reason, make specific mention of such variations in letter of transmittal, as well as on Drawings, in order that (if acceptable) suitable action may be taken for proper adjustment of the Contract Documents. Unless specific changes have been noted and approved, no deviations from Contract Documents will be accepted.

2.6 PRODUCT DATA / MATERIAL LISTS

- A. Manufacturer's Standard Schematic Drawings:
 - 1. Modify Manufacturer's drawings to delete information which is not applicable to the Project.
 - 2. Supplement standard information to provide additional information which is applicable to the Project.
- B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.
 - 1. Clearly mark each copy to identify pertinent materials, products or models. Mark out or remove extraneous information.
 - 2. Show dimensions and clearances required.
 - 3. Show performance characteristics and capacities.

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4. Show wiring diagrams and controls.

2.7 SAMPLES

- A. Samples: Physical examples to illustrate materials, equipment or workmanship, and to establish standards by which completed work is judged.
 1. Include identification on samples including product and material and location of proposed work.
- B. Samples shall be of sufficient size and quantity to clearly illustrate:
 1. Functional characteristics of product or material, with integrally related parts and attachment devices.
 2. After review, samples may be used in construction of project.
- C. Field samples and mockups:
 1. Erect at project site at location acceptable to Architect.
 2. Construct each sample or mockup complete, including work of trades required in finished work.

2.8 REQUESTS FOR INFORMATION (RFI)

- A. Requests for additional information (RFI's) beyond that set-forth in the Contract Documents will be considered when the request is in writing and fully documented. Requests shall state the source and reason for the request; identify specific references within the Contract Documents pertinent to the request; and supply supporting information to assist the Architect in his/her response. Verbal responses to such requests are to be considered informational; official response will only be given in writing.
 1. Submit RFI's on standard form, included with this Section, and numbered consecutively.
 2. Allow a minimum of 72-hours for review by Architect. Additional time may be required for more complex issues.
 3. Provide suggested solution on standard RFI form where indicated.
 4. Provide detailed cost estimate for RFI's that are anticipated to exceed \$500 in extra costs to the Owner.
- B. Because RFI's are used for clarification or Construction Document interpretation purposes, the response will be issued back to the Contractor in the space provided on the standard RFI form. More complex issues requiring Contract Document revisions and/or which may result in a change in cost to the Contract will be handled using a Construction Change Document (CCD). RFI's and CCD's will not be used to address simple or minor coordination or construction issues which can normally be addressed quickly and easily by the Contractor or in conjunction with the Contractor and Architect. RFI's deemed unnecessary or frivolous by the Architect will be returned to the Contractor for reconsideration or will be rejected. RFI's so returned shall be removed from the RFI log and noted as unnecessary.

2.9 CERTIFICATIONS

- A. Where specifically indicated by pertinent Specification Sections, submit proper certification of recognized producer or association in lieu of or in addition to testing. Certification shall attest to product's compliance with requirements of Contract Documents.
- B. Certifications for this project shall also include:
 - 1. Fire Alarm System Certification:
 - a. As specified in Division 28.
 - 2. Megger Grounding Test Certificate:
 - a. Submit completed Megger Grounding Test Certificate (included with this section) with Testing Agency reports attached, as specified in Division 26.
 - 3. Certificate of Chlorination and Sterilization:
 - a. Submit completed Certificate of Chlorination and Sterilization (included with this Section) with Local Jurisdiction approvals and Testing Agency reports attached, as specified in Divisions 22 and 33.
 - 4. Certificate of Compliance for Building Materials:
 - a. Submit completed Certification of Compliance for Building Materials (included with this section).
 - 5. Roofing Certificate:
 - a. Submit fully completed Roofing Certification (included with this Section).

2.10 MAINTENANCE / OPERATION MANUALS

- A. General: Contractor shall incorporate in Maintenance/Operation Manual(s) brochures, manufacturer's catalogs and written instructions for equipment and materials needing regular care or maintenance. These items include carpets, resilient flooring, architectural finishes, mechanical and electrical equipment and other items as required elsewhere in Contract Documents. Prepare manuals in durable plastic loose leaf binders sized to accommodate 8-1/2 x 11 sheets with following minimum information:
 - 1. Identification on or readable through, front cover stating general nature of manual.
 - 2. Neatly typewritten index of contents.
 - 3. Site plan and building plans indicating location of equipment referenced (reduced scale).
 - 4. Complete instructions regarding operation and maintenance of equipment involved.
 - 5. Complete nomenclature of replaceable parts, their part numbers, current cost and name and address of nearest vendor of parts.
 - 6. Copy of warranties issued, in a separate binder as specified in this Section.
 - 7. Copy of approved shop drawings (reduced scale) with data concerning changes made during construction.
- B. Extraneous Data:

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1. Where contents of manuals include manufacturer's catalog pages, clearly indicate precise items included in the Project installation and delete, or otherwise clearly indicate, manufacturer's data with which the Project installation is not concerned.
- C. Materials shall be organized in a logical and consistent manner, by Specification Section number, with separating tabs clearly marked.
- D. When submitting electronic file via Newforma, materials shall be organized in order ascending by Specification Section number and including clear separation within one pdf file, following format prescribed in paragraphs A and B of this Article.

2.11 WARRANTIES AND GUARANTEES

- A. Contractor:
 1. Furnish Owner with an overall Standard Guarantee for work executed under this Contract, including approved extra work, to be absolutely free of defects of workmanship and materials for a period of two (2) years from the date of board approval of the project.
 - a. Repair and make good defects and repair damage to other work caused thereby which may occur during the Guarantee period at no cost to the Owner.
 - b. Guarantees between Contractor and manufacturers and between Contractor and suppliers shall not affect Guarantee between Contractor and Owner.
 - c. Contractor's overall Standard Guarantee shall be submitted on form included in Section 01 7836, Warranties.
 2. Extended Special Guarantees/Warranties:
 - a. In addition to the Contractor's overall Standard Guarantee, furnish Owner with special or extended Guarantees/Warranties in excess of two (2) years where specified in the respective Sections of the Specifications.
 - b. Where special or extended Guarantees/Warranties are related to work of a subcontractor, the written Guarantee/Warranty prepared by the Contractor shall be co-signed by the respective responsible subcontractor.
 - c. Each Special Guarantee/Warranty shall be submitted on form included in Section 01 7836, Warranties.
- B. Provide a binder with Warranties and extended Guarantees placed in the order in which they occur in the Project Manual. Include an Index listing each Specification Section, specific items covered and length of warranty for each item.
- C. When submitting electronic file via Newforma, materials shall be organized in order ascending by Specification Section number and including clear separation within one pdf file.

2.12 RECORD DRAWINGS AND SPECIFICATIONS

- A. The Contractor shall prepare and maintain on a current basis an accurate and complete set of Record Drawings and Annotated Specifications showing clearly the following:

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1. Changes, revisions, and substitutions during construction, including, without limitation, field changes.
 2. Addenda, Construction Change Documents and Clarifications issued by the Architect.
 3. The final location of mechanical equipment, ducts, outlets, structural members, walls, partitions, and other significant features. Note both vertical and horizontal dimensions of concealed installations.
 4. Installed locations of underground work and utilities, including storm drain piping, plumbing, electrical and stubs for future connections. Note both vertical and horizontal locations of underground facilities from permanent monuments such as building corners or other permanent structures, and finish grades.
 5. In the event of a specification that allows Contractor to elect one of several brands, makes, or types of material or equipment, the annotations shall show which of the allowable items the Contractor has furnished.
- B. The Contractor shall update the Record Drawings and Specifications as often as necessary to keep them current but no less often than weekly, and up-dated monthly, prior to and pursuant to approval of the progress payment application.
1. Record drawings and specifications are to remain on site and available for inspection by the District Representative, Project Inspector and the Architect.
 2. Changes shall be made in an accurate and legible manner by a qualified draftsman acceptable to Architect.
 3. Symbols and designations used in preparing Record Drawings shall match those used in the Contract Drawings.
- C. At project completion, the Record Drawings and Annotated Specifications shall be submitted by the Contractor for Owner's Project Inspector and Architect review and comment.
1. These will be returned to the Contractor for revisions. Once corrections have been completed the Inspector shall sign and date the record set coversheet noting it as acceptance of the completed Record Drawings and Specifications.
 2. Prior to Application for Final Payment, the original Record Drawings and Specifications are to be resubmitted to the Architect along with a scanned electronic file set in PDF format with each drawing bookmarked, matching the Drawing titles.
 3. When submitting electronic file via Newforma, materials shall be organized in order ascending by Sheet Number as shown on the Drawing Sheet Index within one pdf file.
- D. Conditions of Payments:
1. At the end of each month the Project Inspector will review the record drawings and specifications. If the records are incomplete, or incorrect, an appropriate amount of dollars, equivalent to the cost of uncovering the work to determine the locations of piping and the like, may be deducted from the next progress payment. The

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deducted sum will be withheld until the record drawings are updated and/or corrected.

2. Written confirmation from the District Representative that the record drawings and specifications have been properly updated weekly shall be submitted with each pay application request, and the existence of such properly updated records shall be a condition precedent to payment.
3. On completion of the Contractor's portion of the Work and prior to Application for Final Payment, the Contractor shall provide one complete set of approved Record Drawings and Specifications to the Owner, in format as specified, certifying them to be a complete and accurate reflection of the actual construction conditions of the Work. Delays in the submission of complete record documents may subject the Contractor to liquidated damages.

2.13 EXTRA STOCK

- A. Provide extra stock and materials, as described in the individual Specification Sections, to the Owner at time of final acceptance.
- B. Materials shall be inventoried in writing, neatly packaged, with labels clearly identifying contents and quantities.
- C. Contractor shall obtain written acceptance of delivery from Owner.

PART 3 - EXECUTION

3.1 GENERAL SUBMISSION REQUIREMENTS

- A. This project is using Newforma Info Exchange for transmission and processing of project documentation. The Contractor is responsible for making contract submissions through this web accessed system. No supplementary software is required for use. User names and passwords will be granted at the beginning of the project.
- B. Contractor is responsible for the scheduling of submittals in order to avoid detrimental impact to the construction schedule and to support the timely sequence of the Work.
 1. Allow a minimum of 15-working days for submittal review by the Architect. Complex submittals or submittals which are not provided as complete packages may take longer than 15-working days for review.
 2. Contractor shall allow time for potential rejection and re-submittal of submittals which are being offered as substitution to the specified products.
- C. Mechanical and electrical submittals, excluding underground work, shall each be packaged together so that products/components for these two major disciplines are transmitted to the Architect as a single submittal package for review.
- D. Contractor shall review submittals for completeness, coordination and conflicts between subcontractors and other Work in the Contract Documents.
 1. Subcontractors shall make submittals to Contractor.

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2. Submittals made by subcontractors which are not thoroughly reviewed by the Contractor will be returned. Submittals which vary significantly from the Contract Documents and are not so identified prior to submission, will be returned to the Contractor without review.
- E. Submittals shall be accompanied by Submittal Transmittal, included at the end of this Section, addressed to the Architect. Each submittal transmittal shall:
1. Be consecutively numbered.
 2. Re-submittals to have same submittal number as the original submittal with an alphanumeric suffix.
 3. Indicate Specification Section number. Separate submittals are required for each Specification Section involved.
 4. Include proper number of copies, as required in "Number of Copies Required" below.
 5. Contain index of items submitted, properly identified with Drawing numbers, etc.
 6. Substitutions shall be accompanied by a completed Substitution Request Form (included with the Project Manual).
- F. Number of Copies Required - Contractor shall submit following number of copies:
1. Subcontractor List: 1-electronic copy in PDF.
 2. Progress Schedule: 1-electronic copy in PDF.
 3. Schedule of Values: 1-electronic copy in PDF.
 4. Shop Drawings: 1-electronic copy in PDF format.
 5. Product Data/Material Lists: 1-electronic copy in PDF format.
 6. Samples: As specifically indicated in the respective Specification Section or, if not indicated, two more than the Contractor requires to be returned.
 7. Samples for Color/Pattern Selection: One set of manufacturer's complete range for initial selection; and 4 samples as requested of selected color/pattern for inclusion in final color boards.
 - a. As color selection is dependent on multiple submittals, it is critical that items requiring color decisions be submitted as early as possible and at the same time.
 - b. Selections will not be finalized until color dependent/selection submittals are received.
 8. Substitution Request: 1-electronic copy in PDF.
 9. Request for Information: 1-electronic copy in PDF.
 10. Electronic Transfer: 1-electronic copy in PDF.
 11. Certifications: 3-copies.
 12. Maintenance/Operations Manuals: After approved via Newforma submittal, 1-hard copy plus 1-electronic copy in format acceptable to the Owner.
 13. Guarantees/Warranties: After approved via Newforma submittal, 1-hard copy, plus 1-electronic copy in format acceptable to the Owner. Refer to Section

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01 7836, Warranties, for forms and additional requirements for assembly of guarantees/warranties.

14. Record Drawings: After approved via Newforma submittal, 1-hard copy plus 1-electronic copy in format acceptable to the Owner.

G. Submittals shall include the following, as applicable:

1. Date and revision dates.
2. Project title and number.
3. The names of Architect, Contractor, Subcontractor and supplier or manufacturer.
4. Identification of product or material.
5. Relation to adjacent structure or material.
6. Field dimensions, clearly identified as such.
7. Specification section number.
8. A blank space for Architect's stamp.
9. Contractor's stamp on each, initialed or signed, certifying that submittal was reviewed, field measurements have been verified and submittal is in compliance with the applicable Specification Section and the overall Contract Documents.

H. Incomplete, inaccurate or non-complying submittals requiring revisions, re-submittal and additional review time, shall not be considered as a basis for Contract time extension.

3.2 PROCEDURES FOR ACTION SUBMITTALS

A. Action Submittals are identified in the respective Specification Section and shall be submitted in accordance with the specified web based access system.

B. Number of Copies: As specified under Article "General Submission Requirements."

C. Architect's Review:

1. General:
 - a. Except for finish, color, and other aesthetic matters left to Architect's decision by Contract Documents, Architect's review is only for Contractor's convenience in following work and does not relieve Contractor from responsibility for deviations from requirements of Contract Documents.
 - b. Do not construe Architect's review as a complete check or relief from responsibility for errors or omissions of any sort in shop drawings or schedules or from necessity of furnishing work required by Contract Documents that may not have been shown on shop drawings.
 - c. Architect's review of a separate item does not indicate review of complete assembly in which it functions.
 - d. Review comments of the Architect (or its consultants) will be shown when it is returned to the Contractor. The Contractor shall make and distribute such copies as are required for its purposes.

D. Processing:

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1. Architect will review Action Submittals in accordance with agreed upon "Submittal Schedule" and will return them to Contractor with Architect's stamp.
2. Notations by Architect which increase Contract cost or time of completion shall be brought to Architect's attention before proceeding with work. Failure to do so will result in the increased costs being borne by the Contractor.
3. Each submittal will be stamped indicating appropriate action to be taken by the Contractor.
4. If for any reason the Contractor cannot comply with the notations, Contractor shall re-submit submittal. In the transmittal letter accompanying the re-submittal, clearly describe the reason(s) for not being able to comply with the notations.

E. Action and Distribution:

1. Architect will stamp submittals and Contractor shall comply with action noted on the Architect's "Submittal Review" stamp.
2. Unless otherwise directed for mutually agreed or required by the Architect's stamp, Architect will return submittals to the Contractor via the specified web access system.
3. If corrections are required, the Contractor is responsible for making the necessary corrections and re-submitting the shop drawings in a timely fashion as to not affect the project schedule.
4. The Contractor shall secure final acceptance prior to commencing work involved.

F. Consultants' Review:

1. Submittals requiring review by Architect's or Owner's consultants shall be uploaded to the specified web access system for distribution by the Architect.
2. Processing shall be in accordance with consultants stamp.
 - a. If action required by consultants stamp is not clear, Contractor shall immediately notify the Architect for a clarification.
 - b. If returned submittal also includes the Architect's stamp, processing shall be in accordance with the Architect's stamp.

G. Revisions:

1. If revisions are required, the Contractor is responsible for making the necessary changes pertinent to by comments noted on the submittal and re-submitting the shop drawings in a timely fashion as to not affect the project schedule.
2. If the Contractor considers any required revision to be a change, they shall so notify the Architect.
3. Show each revision by number, date, and subject in a revision block on the submittal.
4. If for any reason Contractor cannot comply with the notations, Contractor shall resubmit submittal.

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- H. Revisions after Review: When a submittal has been reviewed by the Architect, resubmittal for substitution of materials or equipment will not be considered unless accompanied by an acceptable explanation as to why the substitution is necessary.

3.3 PROCEDURES FOR INFORMATIONAL SUBMITTALS

- A. Informational Submittals are identified in the respective Specification Section and shall be submitted in accordance with the specified web based access system.
- B. Number of Copies: As specified under Article "General Submission Requirements."
- C. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
- D. Test and Inspection Reports: Comply with requirements specified in Section 01 4523, Testing and Inspection Services.

3.4 PROCEDURES FOR CLOSEOUT AND MAINTENANCE MATERIAL SUBMITTALS

- A. Closeout and maintenance material submittals are identified in the respective Specification Section and shall be submitted as specified or, if not specified, in accordance instructions provided by the Architect.
- B. Comply with the additional requirements specified in Section 01 7700, Closeout Procedures.

3.5 FORMS

- A. The following submittal forms are included as part of this Section.
 - 1. Submittal Transmittal.
 - 2. Substitution Request.
 - 3. Request for Information.
 - 4. Electronic Data Request.
 - 5. Megger Grounding Test Certificate.
 - 6. Certification of Chlorination and Sterilization.
 - 7. Certification of Compliance for Building Materials.
 - 8. Roofing Certification.

END OF SECTION

Needham Elementary School - Additions

SUBMITTAL NO.

Architect's Project #18-1366

Re-Submittal of Original No. _____

DSA File/Apl. #

Date: _____

1. SUBMITTAL TRANSMITTAL

To: Rainforth Grau Architects
2101 Capitol Avenue, Suite 100
Sacramento, CA 95816
Attn.: Jennifer Huang

Contractor: Business Name
Address
City, State Zip

Contact: _____

Sub Contractor: _____

Contact: _____

**Please submit only one
trade per submittal!**

Description Of Submitted Materials:

Quantity	Specification Section		Description
	Number	Name	

Contractor Statement: This submittal has been reviewed and approved with respect to the means, methods, techniques, and procedures of construction, safety precautions, and program incidentals thereto. This submittal complies with the contract documents and comprises no variations thereto, unless accompanied by a substitution request. By: _____ Date: _____	Architect's Received Stamp
--	----------------------------

2. TRANSMITTAL TO CONSULTANT(S):

Date: _____ Civil: _____ Struct: _____ Mech: _____ Elect: _____ Other: _____	Consultant's Received Stamp	Architect's Received Stamp
---	-----------------------------	----------------------------

3. RE-TRANSMITTAL TO CONTRACTOR:

<input type="checkbox"/> NO EXCEPTIONS TAKEN <input type="checkbox"/> SUBMIT SPECIFIED ITEM	<input type="checkbox"/> REJECTED <input type="checkbox"/> REVISE AND RESUBMIT	<input type="checkbox"/> FURNISH AS CORRECTED <input type="checkbox"/> NO ACTION REQUIRED	Distribution: Date: _____ Copies to : _____ Contr: _____ PI: _____ Owner: _____ File: _____ Other: _____
<p>Corrections or comments made on the shop drawings during this review do not relieve the Contractor from compliance with requirements of the Drawings and Specifications. This general check is only for the review of conformance with the design concept of the project and general compliance with the information given in the Contract Documents. The Contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of all the other trades, and performing his work in a safe and satisfactory manner.</p> <p>Rainforth Grau Architects By: _____ Date: _____</p> <p>Comments: _____ _____ _____ _____ _____ _____</p>			

See Specification Section 01 3300 for use of this form

**Needham Elementary School - Additions
Lodi Unified School District**

**SUBSTITUTION
REQUEST NO.**

--

Architect's Project #18-1366

DSA File/Appl. # X-XX/XX-XXXXXX

Date: _____

1. SUBSTITUTION REQUEST

To: Rainforth Grau Architects
2101 Capitol Avenue, Suite 100
Sacramento, CA 95816
Attn.: Jennifer Huang

Contractor: _____

Contact: _____

Sub Contractor: _____

Contact: _____

***Please submit only one
trade per request!***

2. PROPOSED SUBSTITUTIONS: The undersigned requests consideration of the following substitution:

Specified Item: _____ Page No.: _____ Paragraph No.: _____

Proposed Item: _____

3. REASON FOR REQUEST:

4. REQUIREMENTS FOR SUBSTITUTIONS:

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of request; applicable portions of data are clearly identified. Attached data also includes a description of changes to Contract Documents, which proposed substitution will require for its proper installation.

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

1. The proposed substitution does not affect dimensions shown on drawings and does not require design changes in the Contract Documents.
2. The undersigned will pay for changes to the building design, including engineering design, detailing and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse effect on the work, the schedule or specified warranty requirements.
4. Maintenance and service parts will be readily available for the proposed substitution.

The undersigned further states that the function, appearance and quality of the proposed substitution are equivalent or superior to the specified item.

Signature - Contractor/Subcontractor _____

Date _____

5. TRANSMITTAL TO CONSULTANT(S):

Date: _____ Civil: _____ Struct: _____ Mech: _____ Elect: _____ Other: _____	Consultant's Received Stamp	Architect's Received Stamp
---	-----------------------------	----------------------------

6. TRANSMITTAL TO CONTRACTOR:

<input type="checkbox"/> ACCEPTED	<input type="checkbox"/> ACCEPTED AS NOTED	<input type="checkbox"/> REJECTED	Distribution:
Rainforth Grau Architects			Contractor: _____
By: _____ Date: _____			PI: _____
Comments: _____			Owner: _____
_____			File: _____
_____			Other: _____
_____			_____

Needham Elementary School - Additions

RFI NO.

Architect's Project #18-1366

DSA File/Apl. #

Date: _____

1. REQUEST FOR INFORMATION

To: Rainforth Grau Architects
2101 Capitol Avenue; Suite 100
Sacramento, CA 95816

Attn.: Jennifer Huang

From: Contractor: _____
Contact: _____

Sub Contractor: _____

Contact: _____

Reference:

Dwg./Document No.: _____ Rev.: _____ Title: _____

Location: _____ Elevation: _____

2. Existing Condition:

3. Recommended Action(s):

4. Project Inspector Acknowledgment: _____ Date Reviewed: _____ Comments: _____

5. Owner / A/E Resolution(s):

Date of Response: _____ By: _____

Attachments: _____

Extra Work Involved in the Above Described Change – Yes: _____ No: _____

Distribution: GC/CM: _____ Consultant: _____

District: _____ Other: _____

PI: _____ File: _____

Needham Elementary School - Additions E-DATA REQUEST NO.

Lodi Unified School District

Architect's Project #18-1366
DSA File/Appl. #

Date: _____

1. ELECTRONIC DATA REQUEST

To: Rainforth Grau Architects
2101 Capitol Avenue, Suite 100
Sacramento, CA 95816
Attn.: Jennifer Huang

From: Contractor: [company name]
Contact: _____
Sub Contractor: _____
Contact: _____

2. DATA REQUESTED - Provide clear and detailed list of information requested:

3. REASON FOR REQUEST - Provide clear explanation of why information is desired and for what purpose it will be utilized:

4. ACKNOWLEDGEMENT OF RESPONSIBILITY:

The electronic data files requested are distributed for reference only. Transferring such files can alter, delete or change original information. Accuracy of the data cannot be guaranteed as correct or complete and the Contractor accepts full responsibility for any and all inaccuracies, regardless of cause.

The hard copy documents, including addenda and subsequent written changes to the documents, represent the complete work of the contract and all electronic files should be cross-referenced and verified from that information as electronic files may not contain all contract information. It is the Contractor's responsibility to make any changes or revisions necessary.

This electronic data is furnished without guarantee of compatibility with your hardware or software. It is the Contractor's responsibility to notify the Architect in the event a compatibility problem or disk defect is encountered and a replacement disk is necessary.

This electronic data, in its present form, remains the property of Rainforth Grau Architects and shall not be used for any other purpose than to provide background information for the project noted above. It is not to be released to any other party without the written consent of Rainforth Grau Architects.

Accepted by: _____

Representing: _____

MEGGER GROUNDING TEST CERTIFICATE

This certifies that a Megger Grounding Test for the **Needham Elementary School - Additions** for the **Lodi Unified** School District, of **[name of county]** County, California was conducted on the _____ day of _____, **[year]**, per CCR Title 24, Sections 200 H and J. The undersigned verifies that the resistance to ground was 25 ohms or less, as required, and is found to be acceptable.

Project Name: _____

DSA File No.: _____ DSA Application No.: _____

Address: _____

General Contractor's Signature: _____

Electrical Contractor's Signature: _____

Testing Agency's Signature: _____

District Inspector's Signature: _____

SEPARATE CERTIFICATE IS REQUIRED FOR EACH SITE

CERTIFICATION OF CHLORINATION AND STERILIZATION

This certifies that _____ chlorinated the domestic hot and cold water plumbing lines for the **Needham Elementary School - Additions**, **Lodi Unified** School District. The lines were first flushed and chlorine was injected in the main water line on _____, **[year]**. A minimum chlorine residual of 50 ppm was measured at each outlet. The lines were tagged, secured and the make-up water was shut off. On _____, **[year]**, (a minimum of 24 hours later) the chlorine residual was retested and found to contain a minimum of 50 ppm. The plumbing lines were then thoroughly flushed with fresh water until the chlorine residual was not greater than 0.2 ppm at all outlets. A Bacteriological Examination report has been provided.

District Inspector Signature: _____

Date _____

Name of Chlorination and Testing Firm: _____

Authorized Representative Signature: _____

Date _____

Name of General Contractor: _____

Authorized Representative Signature: _____

Date _____

CERTIFICATION OF COMPLIANCE FOR BUILDING MATERIALS

This is to certify, in accordance with the Environmental Protection Agency requirements, that the materials and equipment used in the construction of the **Needham Elementary School - Additions** for the **Lodi Unified** School District of **[name of county]** County, California, are asbestos free and are, therefore, not subject to monitoring for asbestos contamination.

Project Name: _____

Address: _____

Contractor: _____

Address: _____

Signature: _____

Title: _____

Date: _____

SEPARATE CERTIFICATE IS REQUIRED FOR EACH SITE

ROOFING CERTIFICATION

This is to certify that a representative of the manufacturer has visited the site prior to installation, inspected the surfaces which the roofing is applied and accepted those surfaces.

In addition, a representative of the manufacturer has inspected the materials and methods used, verified they are in accordance with the manufacturer's recommendations, and accepts the final installation.

A guarantee for materials and workmanship is to be provided separately.

Project name: _____

Address: _____

General Contractor: _____

Roofing Contractor: _____

Scope of Work/Roofing Type: _____

Roofing Manufacturer: _____

Manufacturer's Representative: _____

Representative's Signature: _____

Date: _____

A SEPARATE CERTIFICATE IS REQUIRED FOR EACH SITE
AND FOR EACH ROOFING TYPE

PART 1 - GENERAL

1.1 INCLUSION OF OTHER CONTRACT DOCUMENTS

- A. Appendix B and Division 1 are fully applicable to this Section, as if repeated herein.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01 5000, Temporary Facilities and Controls.
- B. Section 01 7329, Cutting and Patching.
- C. Section 02 4119, Selective Demolition.

1.3 QUALITY ASSURANCE

- A. Use only new materials and products, unless existing materials or products are specifically shown otherwise on the Drawings to be salvaged and re-used.
- B. Use materials and products of one manufacturer whenever possible.
- C. All materials, components, assemblies, workmanship and installation are to be observed by the Owner's Inspector of Record. Work not so inspected is subject to uncovering and replacement.

1.4 GUARANTEE

- A. Refer to Appendix B and Section 01 3300.

1.5 REFERENCES AND STANDARDS

- A. California Building Code (CBC), edition as noted on the drawings, as adopted by the California Division of the State Architect (DSA).

1.6 FIELD MEASUREMENTS

- A. Make and be responsible for all field dimensions necessary for proper fitting and completion of work. Report discrepancies to Architect before proceeding.

1.7 PROJECT RECORD DOCUMENTS

- A. Provide per Section 01 7700, Close-out Procedures.

**ALTERATION PROJECT
PROCEDURES
SECTION 01 3516
18-1366
Addendum 01**

PART 2 - PRODUCTS

2.1 PRODUCTS FOR PATCHING AND EXTENDING WORK

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

PART 3 - EXECUTION

3.1 COORDINATION MEETING

- A. Contractor to coordinate and conduct a meeting with the demolition contractor to verify which systems, if any, are to be protected and maintained. Such systems shall be clearly identified and marked to avoid unnecessary damage or removal.

3.2 INSPECTION

- A. Verify that demolition is complete and areas are ready for installation of new work.
- B. Beginning of restoration work means acceptance of existing conditions.
- C. Prior to installation of the work of this Section, carefully inspect and verify that installed work of all other trades is complete to the point where this installation may properly commence.
- D. Verify that specified items may be installed in accordance with the approved design.
- E. In event of discrepancy, immediately notify Architect. Do not proceed in discrepant areas until discrepancies have been fully resolved.

3.3 PREPARATION

- A. Cut, move or remove items as necessary for access to alterations and renovation work. Replace and restore at completion.
- B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished work.
- C. Remove debris and abandoned items from area and from concealed spaces.
- D. Prepare surface, and remove surface finishes to provide for proper installation of new work and finishes including blocking, framing, insulation, etc.

**ALTERATION PROJECT
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- E. Close openings in exterior surfaces to protect existing work and salvage items for weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.

3.4 INSTALLATION

- A. Coordinate work of alternations and renovations to expedite completion sequentially and to accommodate Owner occupancy.
- B. Complete Project in all respects including operational mechanical and electrical work.
- C. Remove, cut and patch work in a manner to minimize damage and to provide a means of restoring products and finishes to original condition.
- D. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.
- E. Install products as specified in individual specifications Sections.
- F. Where materials or equipment are removed, but no new finish is scheduled, patch and repair any damage to match existing wall surface.

3.5 TRANSITIONS

- A. Where new work abuts or aligns with existing, perform a smooth and even transition. Patched work is to match existing adjacent work in texture and appearance.
- B. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural point of division and make recommendation to Architect.

3.6 ADJUSTMENTS

- A. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls and ceilings to a smooth plane without breaks, steps or bulkheads.
- B. Where a change of plane of 1/8" or more occurs, submit recommendation for providing a smooth transition for Architect review.
- C. Trim existing doors as necessary to clear new floor finish. Refinish trim as required.
- D. Fit work at penetrations of surfaces as specified in Section 01 7329.

3.7 REPAIR OF DAMAGED SURFACES

- A. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- B. Repair substrate prior to patching finish.

**ALTERATION PROJECT
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3.8 FINISHES

- A. Finish surfaces as specified in individual Product Sections.
- B. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

3.9 CLEANING

- A. Upon completion of installation, remove manufacturer's temporary labels and marks of identification. Thoroughly clean surfaces and remove foreign material. Leave entire work in neat, orderly, clean and acceptable condition. Replace damaged parts and surfaces which are not free from imperfections.

3.10 PROTECTION

- A. Protect work and materials of this Section prior to and during installation, and protect the installed work and materials of other trades.
- B. In the event of damage, make all repairs and replacements necessary to the approval of the Architect at no additional cost to the Owner.
- C. Exposed finishes shall be free from scratches, dents, permanent discolorations and other defects in workmanship or material.

- END OF SECTION -

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Last Updated: March 25, 2004*

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Special environmental, sustainable, and “green” building practices related to indoor air quality, resource efficiency supplementing the Pollutant Control requirements specified under Section 01 8113.10, Sustainable Design Requirements, and to ensure healthy indoor air quality in final Project.
- B. Contractor is required to comply with sustainable building practices during construction and when considering materials for substitutions. Refer to Article “Design Requirements.”

1.2 RELATED REQUIREMENTS

- A. Section 01 6116, Volatile Organic Compound (VOC) Restrictions.
- B. Section 01 7419, Construction Waste Management and Disposal.
- C. Section 01 8113, Sustainable Design Requirements.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Submittal Procedures:
 - 1. Informational Submittals shall be submitted in accordance with Section 01 3300, Submittal Procedures.
 - 2. Sustainable Design Submittals shall comply with the additional requirement of Section 01 8113, Sustainable Design Requirements.
 - 3. Closeout Submittals shall be submitted in accordance with Section 01 7700, Closeout Procedures.

1.4 DESIGN REQUIREMENTS

- A. Owner has established general environmental goals for design and for construction of the Project.
 - 1. In addition to the Contractor, the Contractor’s construction team, including subcontractors, suppliers, and manufacturers, are encouraged to participate where possible to realize the Owner’s environmental goals.
 - 2. Intent is for environmental goals to be achieved in a manner which ultimately provides a safe and healthy environment for building occupants with minimal impact on the local, regional and global environment.
- B. Environmental Goals:
 - 1. Refer to specific Specifications Sections for more detailed construction requirements related to specific materials and systems.

ENVIRONMENTAL PROCEDURES
SECTION 01 3543
18-1366
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1.5 INFORMATIONAL SUBMITTALS

A. Indoor Air Quality (IAQ) Data:

1. Environmental Issues: Submit emission test data produced by acceptable testing laboratory, listed in this Specification Article "Quality Assurance," for materials as required in each specific Specification Section.
 - a. Laboratory reports shall contain emissions test data on Volatile Organic Compounds (VOCs) including Total Volatile Organic Compounds (TVOC), specific individual VOCs, formaldehyde and other aldehydes as described in this Section.
 - b. Identify VOCs emitted by each material as required in these Specifications, and demonstrate compliance with the California Green Building Standards Code, edition current as of the date of this Contract.
 - c. Specific test conditions and requirements are set forth in the Specifications. For required tests, submit documentation of sample acquisition, handling, and test specimen preparation, as well as test conditions, methods, and procedures. The tests consist of a 10-day conditioning period followed by a 96-hour test period.
 - 1) Samples collected during the test period at 24, 48, and 96-hours shall be analyzed for TVOC and formaldehyde.
 - 2) VOC samples collected at 96 hours shall be identified and quantified for compounds that are found on the list of Chemicals of Concern. The Chemicals of Concern list is based on the California OEHHA list as of September 2002 (The most recent list shall be used for this Specification as published at:
 - a) http://www.oehha.org/air/chronic_rels/allChrels.html.
2. Cleaning and Maintenance Products: Provide data on manufacturers' recommended maintenance, cleaning, refinishing and disposal procedures for materials and products. These procedures are for final Contractor cleaning of the project prior to Substantial Completion and for provided materials and products as required by the specific Specification Sections.
 - a. Where chemical products are recommended for these procedures, provide documentation to indicate that no component present in the cleaning product at more than 1 percent of the total mass of the cleaning product is a carcinogen or reproductive toxicant as identified in the Chemicals of Concern list referenced above.
 - b. Avoid cleaning products containing alpha-pinene, d-limonene or other unsaturated carbon double bond alkenes due to chemical reactions with ozone to form aldehydes, acidic aerosols, and ultra-fine particulate matter in indoor air.

B. Certificates:

1. Prior to Final Completion, submit a certificate signed by corporate office holder of Contractor, subcontractor, supplier, vendor, installer or manufacturer primarily responsible for the manufacturing of the product, indicating materials provided are

essentially the same, and contain essentially the same components as products and materials tested.

2. Comply with requirements specified in Specification Section 01 7700, Closeout Procedures.

1.6 CLOSEOUT SUBMITTALS

- A. Submit data relating to Environmental Issues.
 1. Submit environmental product certifications, in two forms:
 - a. Two CD-ROMs organized by CSI Division Format.
 - b. Three three-ring binders organized by CSI Division Format with Table of Contents and with dividers for each Division.

1.7 QUALITY ASSURANCE

- A. Environmental Project Management and Coordination: Contractor to identify one person on Contractor's staff to be responsible for environmental issues compliance and coordination.
 1. Experience: Environmental project manager shall have experience relating to sustainable building construction.
 2. Responsibilities: Carefully review the Contract Documents for environmental issues, coordinate work of trades, subcontractors, and suppliers; instruct workers relating to environmental issues; and oversee Project Environmental Goals.
 3. Meetings: Discuss Environmental Goals at following meetings.
 - a. Pre-construction meeting.
 - b. Pre-installation meetings.
 - c. Regularly scheduled job-site meetings.
 - d. Special sustainability issues meetings.
- B. Environmental Issues Criteria: Comply with requirements listed in the Specification Sections.
- C. Acceptable Indoor Air Emissions Testing Laboratories:
 1. Selection of testing laboratories shall include assessment of prior experience in conducting indoor source emissions tests.
 2. The proposed laboratory shall be an independent company or organization not related to the manufacturer of the products to be tested.
 3. Submit documentation on proposed laboratory for review and approval by Owner.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Packaging: Deliver materials in recyclable or in reusable packaging such as cardboard, wood, paper, or reusable blankets, which will be reclaimed by supplier or manufacturer for recycling.

ENVIRONMENTAL PROCEDURES

SECTION 01 3543

18-1366

Addendum 01

1. Minimize packaging materials to maximum extent possible while still ensuring protection of materials during delivery, storage, and handling.
 2. Unacceptable Packaging Materials: Polyurethane, polyisocyanate, polystyrene, polyethylene, and similar plastic materials such as “foam” plastics and “shrink-fit” plastics.
 3. Reusable Blankets: Deliver and store materials in reusable blankets and mats reclaimed by the manufacturers or suppliers for reuse where the reclamation program exists or where a program can be developed for such reuse.
 4. Pallets: Where pallets are used, suppliers shall be responsible to ensure pallets are removed from site for reuse or for recycling.
 5. Corrugated Cardboard and Paper: Where paper products are used, recycle as part of the construction waste management recycling program, or return to the material’s manufacturer for use by the manufacturer or supplier.
 6. Sealants, Paint, Primers, Adhesives, and Coating Containers: Return to the supplier or manufacturer for reuse where such program is available.
- B. Comply with the additional requirements specified in Section 01 7419, Construction Waste Management and Disposal.

1.9 FIELD CONDITIONS

- A. No smoking will be permitted in indoor Project site locations, in accordance with California Labor Code (Section 400-6413.5).
- B. Environmental Product Certification:
1. Include certification that indicates cleaning materials comply with requirements of these Specifications.
- C. Construction Ventilation and Preconditioning:
1. Temporary Construction Ventilation: Maintain sufficient temporary ventilation of areas where materials are being used that emit VOCs. Maintain ventilation continuously during installation, and until emissions dissipate following installation. If continuous ventilation is not possible utilizing the building’s HVAC system(s) then ventilation shall be supplied using open windows and temporary fans, sufficient to provide no less than three air changes per hour.
 - a. Period after installation shall be sufficient to dissipate odors and elevated concentrations of VOCs. Where no specific period is stated in these Specifications, a time period of 72 hours shall be used.
 - b. Ventilate areas directly to outside; ventilation to other enclosed areas is not acceptable.
 2. During dust producing activities, including drywall installation and finishing, turn ventilation system off, and openings in supply and return HVAC system shall be protected from dust infiltration. Provide temporary ventilation as required.
 3. Preconditioning: Prior to installation, allow products which have odors and significant VOC emissions to off-gas in dry, well-ventilated space for 14 calendar

days to allow for reasonable dissipation of odors and emissions prior to delivery to Project site and installation.

- a. Condition products without containers and packaging to maximize off-gassing of VOCs
- b. Condition products in ventilated warehouse or other building. Comply with substitution requirements for consideration of other locations.

D. Protection:

1. Moisture Stains: Materials with evidence of moisture damage, including stains, are not acceptable, including both stored and installed materials; immediately remove from site and properly dispose.
 - a. Take special care to prevent an accumulation of moisture on installed materials and within packaging during delivery, storage, and handling to prevent development of molds and mildew on packaging and on products
 - b. Immediately remove from site and properly dispose of materials showing signs of mold and signs of mildew, including materials with moisture stains.
 - c. Replace moldy materials with new, undamaged materials.
2. Ducts: Seal ducts during transportation, delivery, and construction to prevent accumulation of construction dust and construction debris inside of ducts.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Requests for substitutions shall comply with requirements specified in Specification Section 01 3300, Submittals, and with the following additional information required where environmental issues are specified:
 1. Indicate how each proposed substitution complies with requirements for VOCs.
 2. Owner, in consultation with Architect reserve the right to reject proposed substitutions where data for VOCs is not provided or where emissions of individual VOCs are higher than for the specified materials.
 3. Comply with the specified recycled content and other environmental requirements.

PART 3 - EXECUTION

3.1 FIELD QUALITY CONTROL

A. Sequencing:

1. On-Site Application: Where odorous and/or high VOC emitting products are applied on-site, apply prior to installation of porous and fibrous materials. Where this is not possible, protect porous materials with polyethylene vapor retarders.

ENVIRONMENTAL PROCEDURES

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2. Complete interior finish material installation no less than 14 days prior to Substantial Completion to allow for Building Flush Out as described in Paragraph 3.1B.
- B. Building Flush Out: Just prior to Substantial Completion, flush out building air continuously using maximum tempered outside air, or maximum amount of outside air while achieving reasonable indoor temperature, for at least 14 calendar days. Continuously is defined as 24 hours per day, 7 days a week. If interruptions of more than a few hours are required for testing and balancing purposes, extend flush out period accordingly in order to achieve the minimum 14 calendar day building flush out period.
1. When Contractor is required to perform touch-up work, provide temporary construction ventilation during installation and extend building flush-out by a minimum of 4 calendar days after touch-up installation is complete with maximum tempered outside air for 24 hours per day.
 2. If construction schedule permits, extend flush-out period beyond minimum building flush out period for an additional 15 days.
 3. Return ventilation system to normal operation following flush-out period to minimize energy consumption.

3.2 CLEANING

- A. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains, and foreign substances; polish transparent and glossy surfaces using cleaning and maintenance products that conform to standards as described in Part 1 of this Section.
- B. Clean equipment and fixtures to sanitary condition using cleaning and maintenance products that conform to standards as described in Part 1 of this Section.
- C. Products used for cleaning shall comply with Proposition 65 and the additional restrictions for volatile organic compounds specified in Section 01 6116.
- D. Vacuum carpeted and soft surfaces with high efficiency particulate arrestor (HEPA) vacuum.
- E. If ducts were not sealed during construction, and contain dust or dirt, clean ducts using HEPA vacuum immediately prior to Substantial Completion and prior to using ducts to circulate air. Oil film on sheet metal shall be removed before shipment to site. Ducts shall be inspected to confirm that no oil film is present. Remove oil film.
- F. Replace air filters, both pre and final filters, just prior to Substantial Completion.
- G. Remove and properly dispose of recyclable materials using construction waste management program described in Section 01 7419, Construction Waste Management and Disposal.

3.3 PROTECTION

- A. Protect interior materials from water intrusion or penetration where interior products are not intended for wet applications and are exposed to moisture.

ENVIRONMENTAL PROCEDURES
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- B. Protect installed products using methods that do not support growth of mold and mildew.
 - 1. Immediately remove from site materials with mold or mildew.

END OF SECTION

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ABBREVIATIONS & ACRONYMS
SECTION 01 4213
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PART 1 - GENERAL

1.1 INCLUSION OF OTHER CONTRACT DOCUMENTS

- A. The General Conditions, Supplementary Conditions and Division 1 are fully applicable to this Section, as if repeated herein.

1.2 LIST OF INITIALISMS

- | | | |
|----|--------|--|
| A. | AASHTO | American Association of State Highway and Transportation Officials |
| B. | ACI | American Concrete Institute |
| C. | ACS | Access Compliance Section |
| D. | AGA | American Gas Association |
| E. | AIA | American Insurance Association (successor to NBFU) |
| F. | AISC | American Institute of Steel Construction |
| G. | AISI | American Iron and Steel Institute |
| H. | AITC | American Institute of Timber Construction |
| I. | ALSC | American Lumber Standards Committee |
| J. | ANSI | American National Standards Institute |
| K. | ASTM | American Society for Testing & Materials |
| L. | AWPA | American Wood Preservers Association |
| M. | AWS | American Welding Society |
| N. | CBC | California Building Code |
| O. | CEC | California Electrical Code |
| P. | CLFMI | Chain Link Fence Manufacturing Institute |
| Q. | CPC | California Plumbing Code |
| R. | CRA | California Redwood Association |
| S. | CRSI | Concrete Reinforcing Steel Institute |
| T. | CS | Commercial Standard (US Dept. of Commerce) |

ABBREVIATIONS & ACRONYMS

SECTION 01 4213

18-1366

Addendum 01

U.	DSA	Division of the State Architect
V.	FLS	Fire & Life Safety
W.	FS	Federal Specification
X.	IOR	Inspector of Record
Y.	NBFU	National Board of Fire Underwriters (See AIA)
Z.	NEC	National Electric Code of NFPA
AA.	NEMA	National Electrical Manufacturers Association
BB.	NFPA	National Fire Protection Association
CC.	OSHA	Occupational Safety and Health Administration
DD.	PCA	Portland Cement Association
EE.	SMACNA	Sheet Metal & Air Conditioning Contractors National Association
FF.	SPR	Simplified Practice Recommendation (US Dept. of Commerce)
GG.	SWPPP	Storm Water Pollution Prevention Plan
HH.	TCA	Tile Council of America
II.	Title 19	California Code of Regulations - Public Safety
JJ.	Title 24	California Code of Regulations - Building Code
KK.	UL	Underwriter's Laboratories, Inc.
LL.	WCLIB	West Coast Lumber Inspection Bureau (successor to WCLA)
MM.	WI	Woodwork Institute
NN.	WWPA	Western Wood Products Association

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

- END OF SECTION -

DEFINITIONS & STANDARDS
SECTION 01 4216
18-1366
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PART 1 - GENERAL

1.1 INCLUSION OF OTHER CONTRACT DOCUMENTS

- A. Appendix B and Division 1 are fully applicable to this Section, as if repeated herein.

1.2 RELATED DOCUMENTS

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

1.3 DESCRIPTION OF REQUIREMENTS

- A. General: This section specifies procedural and administrative requirements for compliance with governing regulations and the codes and standards imposed upon the work. These requirements include the obtaining of permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with regulations, codes and standards.
- B. "Regulations" is defined to include laws, statutes, ordinances and lawful orders issued by governing authorities, as well as those rules, conventions and agreements within the construction industry which effectively control the performance of the work regardless of whether they are lawfully imposed by governing authority or not.
- C. Governing Regulations: Refer to General and Supplementary Conditions for requirements related to compliance with governing regulations.

1.4 DEFINITIONS

- A. General Explanation: A substantial amount of specification language consists of definitions for terms found in other contract documents, including the drawings. (Drawings must be recognized as diagrammatic in nature and not completely descriptive of the requirements indicated thereon.) Certain terms used in contract documents are defined in this Article. Definitions and explanations contained in this section are not necessarily either complete or exclusive, but are general for the work to the extent that they are not stated more explicitly in another element of the Contract Documents.
- B. General Requirements: The provisions or requirements of Division 1 sections apply to entire work of Contract and, where so indicated, to other elements which are included in project.
- C. Indicated: The term "indicated" is a cross-reference to graphic representations, notes or schedules on drawings, to other paragraphs or schedules in the specification, and to similar means of recording requirements in contract documents. Where terms such as "shown", "noted", "scheduled", and "specified" are used in lieu of "indicated", it is for purpose of helping reader locate cross-reference, and no limitation of location is intended except as specifically noted.

DEFINITIONS & STANDARDS

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- D. Directed, Requested, etc.: Where not otherwise explained, terms such as "directed", "requested", "authorized", "selected", "approved", "required", "accepted", and "permitted" mean "directed by Architect", "requested by Architect", and similar phrases. However, no such implied meaning will be interpreted to extend the Architect's responsibility into the Contractor's area of construction supervision.
- E. Approve: Where used in conjunction with Architect's/ Engineer's response to submittals, requests, applications, inquiries, reports and claims by Contractor, the meaning of term "approved" will be held to limitations of Architect's/Engineer's responsibilities and duties as specified in General and Supplementary Conditions. In no case will "approval" by Architect/Engineer be interpreted as a release of Contractor from responsibilities to fulfill requirements of contract documents.
- F. Project Site: The term "project site" is defined as the space available to the Contractor for performance of the work, either exclusively or in conjunction with others performing other work as part of the project. The extent of the project site is shown on the drawings, and may or may not be identical with the description of the land upon which the project is to be built.
- G. Furnish: Except as otherwise defined in greater detail, term "furnish" is used to mean supply and deliver to project site, unloaded, ready for assembly, installation, etc., as applicable in each instance.
- H. Install: Except as otherwise defined in greater detail, term "install" is used to describe operations at project site including unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.
- I. Provide: Except as otherwise defined in greater detail, term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.
- J. Installer: The term "installer" is defined as the entity (person or firm) engaged by the Contractor, its subcontractor or sub-subcontractor for performance of a particular unit of work at the project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (installers) be expert in the operations they are engaged to perform.
- K. Testing Laboratory: The term "testing laboratory" is defined as an independent entity engaged to perform specific inspections or tests of the work, either at the project site or elsewhere, and to report, and (if required) interpret results of those inspections or tests.
- L. Minimum Quality/Quantity: In every instance, the quality level or quantity shown or specified is intended to be the minimum for the work to be performed or provided. Except as otherwise specifically indicated, the actual work may either comply exactly with that minimum (within specified tolerances), or may exceed that minimum within reasonable limits. In complying with these requirements, indicated numeric values are either minimums or maximums as noted, or as appropriate for context of the requirements. Refer instances of uncertainty to Architect for decision before proceeding.

DEFINITIONS & STANDARDS
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- M. Specialists, Assignments: In certain instances, specification text requires (or implies) that specific work is to be assigned to specialists or expert entities, who must be engaged for the performance of that work. Such assignments shall be recognized as special requirements over which the Contractor has no choice or option. These requirements should not be interpreted so as to conflict with the enforcement of building codes and similar regulations governing the work; they are also not intended to interfere with local union jurisdiction settlements and similar conventions. Such assignments are intended to establish which party or entity involved in a specific unit of work is recognized as "expert" for the indicated construction processes or operations. Nevertheless, the final responsibility for fulfillment of the entire set of contract requirements remains with the Contractor.
- N. Trades: Except as otherwise indicated, the use of titles, such as "carpentry" in specification text, implies neither that the work must be performed by an accredited or unionized tradesperson of corresponding generic name (such as "carpenter"), nor that specified requirements apply exclusively to work by tradespersons of that corresponding generic name.
- O. Abbreviations: The language of specifications and other contract documents is of the abbreviated type in certain instances, and implies words and meanings which will be appropriately interpreted. Actual work abbreviations of a self-explanatory nature have been included in texts. Specific abbreviations have been established, principally for lengthy technical terminology and primarily in conjunction with coordination of specification requirements with notations on drawings and in schedules. These are frequently defined in sections at first instance of use. Trade association names and titles of general standards are frequently abbreviated. Singular words will be interpreted as plural and plural words will be interpreted as singular.

1.5 DRAWING SYMBOLS:

- A. General: Except as otherwise indicated, graphic symbols used on drawings are those symbols recognized in the construction industry for purposes indicated. Where not otherwise noted, symbols are defined by "Architectural Graphic Standards", published by John Wiley & Sons, Inc., seventh edition.
- B. Mechanical/Electrical Drawings: Graphic symbols used on mechanical and electrical drawings are generally aligned with symbols recommended by more specific symbols as recommended by other recognized technical associations including ASME, ASPE, IEEE and similar organizations. Refer instances of uncertainty to the Architect/Engineer for clarification before proceeding.

1.6 INDUSTRY STANDARDS:

- A. General Applicability of Standards: Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, applicable standards of the construction industry have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies were bound herewith. Refer to other contract documents for resolution of overlapping and conflicting requirements which result from

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the application of several different industry standards to the same unit of work. Refer to individual unit of work sections for indications of which specialized codes and standards the Contractor must keep at the project site, available for reference.

- B. Referenced Standards (referenced directly in contract documents or by governing regulations) have precedence over non-referenced standards which are recognized in industry for applicability to work.
- C. Non-referenced Standards are hereby defined as having no particular applicability to the work, except as a general requirement of whether the work complies with standards recognized in the construction industry.
- D. Publication Dates: Except as otherwise indicated, where compliance with an industry standard is required, comply with standard in effect as of date of contract documents.
- E. Copies of Standards: The contract documents require that each entity performing work be experienced in that part of the work being performed. Each entity is also required to be familiar with recognized industry standards applicable to that part of the work. Copies of applicable standards are not bound with the contract documents.
 - 1. Where copies of standards are needed for proper performance of the work, the Contractor is required to obtain such copies directly from the publication source.
 - 2. Although a certain number of copies of these standards may be required as a part of the submittal, the Architect/Engineer reserves the right to require the Contractor to submit additional copies of these standards as necessary for enforcement of the requirements.
- F. Abbreviations and Names: Where acronyms or abbreviations are used in the specifications or other contract documents they are defined to mean the industry recognized name of the trade association, standards generating organization, governing authority or other entity applicable to the context of the test provision. Refer to the "Encyclopedia of Associations", published by Gale Research Co., available in most libraries.

1.7 GOVERNING REGULATIONS/AUTHORITIES

- A. General: The procedure followed by Architect/Engineer has been to contact governing authorities where necessary to obtain information needed for the purpose of preparing contract documents; recognizing that such information may or may not be of significance in relation to Contractor's responsibilities for performing the work. Contact governing authorities directly for necessary information and decisions having a bearing on performance of the work.

1.8 SUBMITTALS

- A. Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipt for fee payments, judgments, and similar documents, correspondence and

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records established in conjunction with compliance with standards and regulations bearing upon performance of the work.

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PART 3 - EXECUTION – NOT USED

- END OF SECTION -

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PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements related to inspections, tests, and related quality control procedures required to be performed by the Contractor and that facilitate the Contractor's compliance with the Contract Documents.

1.2 RELATED REQUIREMENTS

- A. Section 01 3300, Submittal Procedures; submission of manufacturers' instructions and certificates.
- B. Section 01 4523, Testing and Inspecting Services, and DSA 103; Special Tests and Inspections required by authorities having jurisdiction and are the responsibility of Owner.
- C. Section 01 7700, Closeout Procedures.
- D. Specific requirements for testing, inspections, mockups, and other quality control requirements as described in the various Sections of the Specifications.

1.3 DEFINITIONS

- A. Experienced: When used with an entity or individual, and unless otherwise specified, means having successfully completed a minimum of three previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- B. Field Quality-Control Tests: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- C. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, subcontractor, or sub-subcontractor, to perform a particular construction operation, including installation, erection, application, assembly, and similar operations.
- D. Mockups: Full-size, physical assemblies that are constructed on-site and in-place mockups to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, interface, testing, and operation of various building components. Mockups are not samples.
- E. Tests: Procedures intended to establish the quality, performance, or reliability of a product or system conducted by a qualified Testing Agency.
- F. Source Quality-Control Tests: Tests and inspections related to materials manufactured or fabricated away from the jobsite that will be incorporated into the work.

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- G. Testing Agency: An independent entity engaged to perform specific tests, inspections, or both, is qualified to operate in California, and meets the additional requirements specified.
 - 1. Testing laboratory shall mean the same as Testing Agency.
- H. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- I. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include Contract administration activities performed by Architect.

1.4 REFERENCES AND STANDARD SPECIFICATIONS

- A. General:
 - 1. The Contract Documents contain references to various standard specifications, codes, practices, and requirements for materials, work quality, installation, inspections, and tests published and issued by the organizations, societies, and associations.
 - 2. Contractor shall obtain its own copies of required specified referenced publications.
 - 3. The specification or standard referred to shall have full force and effect as though printed in these Specifications.
 - 4. When the effective date of a reference standard is not specified, it shall be understood that the current edition or latest revision thereof and any amendments or supplements thereto in effect on the date of the DSA approval, shall govern the Work.
 - 5. The contractual relationships, duties, and responsibilities of the parties in Contract or those of the Architect shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.
- B. Products or workmanship specified by association, trade, or other consensus standards shall comply with requirements of the referenced standard or specification except when more rigid requirements are specified or are required by applicable codes.
- C. Conflicting Requirements:
 - 1. If compliance with two or more standards or requirements are specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement.
 - 2. Refer conflicting requirements that are different, but apparently equal, to Architect for direction before proceeding.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Submittal Procedures:
 - 1. Informational Submittals shall be submitted in accordance with Section 01 3300, Submittal Procedures.
 - 2. Closeout Submittals shall be submitted in accordance with Section 01 7700, Closeout Procedures.

1.6 INFORMATIONAL SUBMITTALS

- A. Schedule of Tests and Inspections.
- B. Field Superintendent's Quality Control Responsibilities
- C. Procedures for inspection prior to subsequent Work or cover up.
- D. Qualifications of Contractor's Testing Agencies.
- E. Certified copies of Reports and Documents.

1.7 CLOSEOUT SUBMITTALS

- A. Permits, Licenses, and Certificates: Copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.
- B. Test and Inspection Log including final record for each test and inspection as specified in Part 3 and in accordance with Section 01 7839, Project Record Documents.

1.8 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports where specified in the Specification Sections. Include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making tests and inspections.
 - 6. Description of the Work and test and inspection method.
 - 7. Identification of product and Specification Section.
 - 8. Complete test or inspection data.
 - 9. Test and inspection results and an interpretation of test results.
 - 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.

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11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and re-inspecting.

1.9 QUALITY ASSURANCE

- A. Minimum Quantity or Quality Levels:
 1. The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements.
 2. Refer uncertainties to Architect for a decision before proceeding.
- B. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- C. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- D. Correct conditions or workmanship not in conformance with specified standards or quality. Do so immediately after non-conformance item is discovered or within a reasonable time frame agreed upon with Construction Manager.
- E. Comply with manufacturers' instructions, including each step in sequence. Should manufacturers' instructions conflict with Contract Documents, request clarification from the Architect before proceeding.
- F. Comply with specified standards as minimum quality for the Work, except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- G. Perform Work by persons qualified to produce required and specified quality.
- H. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
- I. Upon delivery to the jobsite, materials and products shall be inspected for compliance with the Project Specifications.
 1. Nonconforming materials, products, equipment, hardware, tools and/or safety devices shall be removed immediately from the general work area and stored within a secured area approved by the Owner as "NON CONFORMING MATERIALS AREA" to ensure that defective or nonconforming materials are not incorporated into or used on the project

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2. Materials or products shall not be removed from the designated area until they are deemed by the Architect to be in compliance, or until they are modified or fixed to meet the project specifications, or until they are removed from the jobsite for the purposes of disposal or shipment back to the manufacturer.

1.10 CONTRACTORS TESTING AGENCY

- A. Qualifications: An independent testing laboratory nationally recognized according to 29 CFR 1910.7 and accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP,) or other independent agency with the experience and capability to conduct testing and inspecting indicated, documented according to ASTM E329; with additional qualifications specified in individual Sections; and, where required, that is acceptable to authorities having jurisdiction.
- B. Testing Agency shall cooperate with Architect, Construction Manager, Owner's Project Inspector, and Contractor in performance of duties.
- C. Testing Agency shall provide qualified personnel to perform required tests and inspections.
- D. Testing Agency shall not be authorized to release, revoke, alter, or increase the Contract Document requirements, approve or accept any portion of the Work, or perform any duties of Contractor.

1.11 TESTS AND INSPECTIONS

- A. Preconstruction Testing: Where preconstruction testing is specified to verify performance requirements, comply with the following as applicable:
 1. Contractor Responsibilities:
 - a. Provide test specimens representative of proposed products and construction.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
 - d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
 - e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
 - f. When testing is complete, remove test specimens, assemblies, and mockups; do not reuse products on Project unless approved by Architect in writing.
- B. Tests and Inspections indicated in individual Specification Sections shall be conducted by a qualified Testing Agency. The responsibilities of the Testing Agency shall be as follows:

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1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
 2. Notifying Architect, Construction Manager, Owner's Project Inspector, and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 3. Submit a certified written report of each test, inspection, and similar quality-control service to Architect, Construction Manager, and Owner's Project Inspector with copy to Contractor and to DSA.
 4. Submit a final report of tests and inspections at Substantial Completion which includes a list of unresolved deficiencies.
 5. Interpret tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 6. Retest and reinspect corrected work.
- C. Monitoring and Documentation: Contractor shall maintain testing and inspection reports including log of approved and rejected results as specified in Part 3.
1. Include work Architect has indicated as nonconforming or defective.
 2. Indicate corrective actions taken to bring nonconforming work into compliance with requirements.
 3. Comply with requirements of the California Division of the State Architect (DSA).

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 NOTIFICATIONS

- A. Contractor shall provide the following notifications;
1. Owner's Project Inspector writing:
 - a. 24 hours in advance of starting new Work
 - b. 24 hours in advance of each test or inspection
 2. 48 hours' prior notice, minimum, to the Testing Agency for required tests and inspections.

3.2 TEST AND INSPECTION FIELD BINDER

- A. Contractor shall maintain in the Field Office a Test and Inspection Field Binder that includes a hard copy of the following documents:
1. Approved Quality Control Plan.
 2. Specification Sections that apply to the respective portions of work.

3. ASI's, RFI's, CCD's or other approved document that changes the work.
4. Manufacturer's Installation Instructions (MII).
5. Specific details of the Work as requested by the Inspector.
6. Test and Inspection Log.

3.3 TEST AND INSPECTION LOG

- A. Prepare and maintain a record of tests and inspections using an electronic spreadsheet.
- B. Include the following information:
 1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. List pertinent detail/sheet number.
 4. List pertinent Specification Section.
 5. Attach manufacturer's installation inspections if applicable.
 6. List and attach RFI's, ASI's or CCD's affecting the Work.
 7. Date Inspector verified work is acceptable.
- C. Final record for each test and inspection shall be submitted on Contractors letterhead and include the name of the responsible person to verify Work was in accordance with the approved Contract Documents.

3.4 MANUFACTURERS' FIELD SERVICES

- A. When specified in respective Specification Sections, Contractor shall require supplier or manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, testing, adjusting and balancing of equipment as applicable, and to make appropriate recommendations. Contractor is responsible for proper notification of manufacturer's representative before installation of applicable work and for obtaining necessary inspection certificate stating that installation was observed and approved.
- B. Product Performance Verification: The supplier of products specified based on performance criteria shall, at the request of the Agency, inspect the installed product and certify conformance of the product to specified criteria under the installed conditions.
- C. Manufacturer's representative shall submit written report to the Architect listing observations and recommendations.

3.5 TOLERANCES - GENERAL

- A. Monitor tolerance control of installed products or portions to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.

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

3.6 DIMENSIONING AND TOLERANCES FOR ACCESSIBILITY

- A. While it is recognized that construction practices generally permit a level of reasonable dimensional tolerance, the installation of items subject to compliance with the Americans with Disabilities Act Accessibility Guidelines and Chapter 11B of the California Building Code, typically does not allow such tolerances. Therefore, these dimensions are to be considered absolute and will be strictly enforced. Items found to be out of tolerance may require modification and/or replacement at Contractor's expense.

3.7 REPAIR AND PROTECTION

- A. On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes.
 - 2. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 01 7329, Cutting and Patching.
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

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PART 1 - GENERAL

1.1 INCLUSION OF OTHER CONTRACT DOCUMENTS

- A. Appendix B and Division 1 are fully applicable to this Section, as if repeated herein.

1.2 RELATED SECTIONS AND DOCUMENTS

- A. Geologic Hazards & Soils Report.
- B. DSA 103 - Structural Test & Inspections List.
- C. Section 01 3300, Submittal Procedures.
- D. Section 01 7700, Closeout Procedures.
- E. Section 13 3423, Relocatable Modular Buildings.
- F. Section 31 0000, Earthwork.
- G. Individual Specification Sections: Inspections and tests required, and standards for testing.

1.3 REFERENCES

- A. California Code of Regulations (CCR), Title 24, Part 1.
- B. California Building Code (CBC), edition as noted on the drawings, as adopted by the California Division of the State Architect (DSA).

1.4 SELECTION AND PAYMENT

- A. Testing laboratory shall be approved by both the Architect and the Division of the State Architect.
- B. Owner will employ and pay for services of an independent testing laboratory to perform specified inspection and testing. Retesting costs for failed tests will be the Contractors responsibility and will be back-charged against the contract.
- C. Under provisions for Relocatable Building construction, Owner limits his exposure to in-plant inspection and testing costs. Refer to other Specification Sections related to such specific construction.
- D. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform work in accordance with requirements of Contract Documents.

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1.5 LABORATORY REPORTS

- A. After each inspection and test, promptly submit two copies of laboratory report to Owner, Architect, Contractor and DSA.
- B. Include:
 - 1. Date of issue,
 - 2. DSA Application and File numbers,
 - 3. Project title and number,
 - 4. Name of inspector,
 - 5. Date and time of sampling or inspection,
 - 6. Identification of product and Specification Section,
 - 7. Location in the Project,
 - 8. Type of inspection or test,
 - 9. Date of test,
 - 10. Results of test,
 - 11. Conformance with Contract Documents.
- C. When requested by Architect, provide interpretation of test results.

1.6 LIMITS ON TESTING LABORATORY AUTHORITY

- A. Laboratory may not release, revoke, alter or enlarge on requirements of Contract Documents.
- B. Laboratory may not approve or accept any portion of the work.
- C. Laboratory may not assume any duties of Contractor.
- D. Laboratory has no authority to stop the work.

1.7 CONTRACTOR RESPONSIBILITIES

- A. Deliver to laboratory at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs. Allow reasonable time for review and testing.
- B. Arrange for, and coordinate with, laboratory for all required testing and inspection. Provide adequate notice, in advance, for proper scheduling and processing of testing. The Inspector will not be responsible for scheduling or arranging for testing and inspection services.
- C. Cooperate with laboratory personnel, and provide access to the work and to manufacturer's facilities.

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- D. Provide incidental labor and facilities to provide access to work to be tested, to obtain and handle samples at the site or at the source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.
- E. Notify Architect, Inspector, Structural Engineer (when applicable) and laboratory 24 hours prior to expected time for operations requiring inspection and testing services.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

- END OF SECTION -

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Last Updated: May 8, 2008*

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Included: Except as otherwise specified, temporary facilities and controls required for performance of the Contract including, but not necessarily limited to:

1. Field offices.
2. Temporary utilities.
3. Sanitary facilities.
4. Construction equipment.
5. Enclosures, fencing and barricades.
6. Temporary signs.
7. Site access and parking.
8. Temporary controls.
9. Winterization.
10. Fire alarm, intrusion alarm and fire sprinkler systems.
11. Existing conditions.

1.2 RELATED REQUIREMENTS

- A. Section 01 7419, Construction Waste Management and Disposal.
- B. Section 01 7700, Closeout Procedures; final cleaning.
- C. Permanent Utilities: As specified under other Specification Sections.

1.3 REQUIREMENTS OF REGULATORY AGENCIES

- A. General:
1. Temporary facilities and controls shall be approved by local, state and federal authorities and regulatory agencies having jurisdiction, including insurance companies, with regard to safety precautions, operation and fire hazard.
 2. Contractor shall contact local authorities prior to start of work to coordinate local requirements.
- B. Comply with applicable standards referenced in Section 01 4216, Definitions and Standards.
- C. Contractor shall:
1. Take suitable steps to ensure that public utilities encountered in connection with the Work will not be damaged.

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2. Send notices, make necessary arrangements and provide services required for the care of gas mains, water pipes, sewer pipes, conduits, cables, and other equipment or property.
3. Arrange with utility companies for fees required to move or remove their meters, poles, cables, guy wires, or equipment in or set under the property which will interfere with the construction work or which will not be required in the new construction.

1.4 PRODUCT HANDLING

- A. Protection: Use all means necessary to protect and maintain temporary facilities and controls in proper and safe condition throughout progress of work.
- B. Replacements: In event of loss or damage, immediately make necessary repairs and replacements; as approved by Architect at no additional cost to Owner.

PART 2 - TEMPORARY FACILITIES AND CONTROLS

2.1 MATERIALS

- A. General: Materials may be new or used but shall be adequate in capacity for the required usage, shall not create unsafe conditions, and shall not violate requirements of applicable codes and standards.
- B. Tools, extension cords, and electrical equipment shall conform to Underwriters' Laboratory standards and OSHA requirements and shall be in proper working order to preclude hazard to occupants and premises.

2.2 FIELD OFFICES - GENERAL

- A. Minimum Requirements: Provide the facilities specified.
- B. Construction: Waterproof, weather tight, with adequate lighting, and windows.
- C. Provide adequate measures to secure Field Office contents from theft that may include, but are not limited to, alarms, security guards on windows, exterior lighting, and lock guards.
- D. Contractor shall comply with City Ordinances and requirements regarding but not limited to the number and location of all temporary trailers, offices, and equipment. Contractor shall apply and pay for all required permits.
- E. Office and equipment shall remain property of Contractor and shall be removed by Contractor upon completion of work.
- F. Utilities: Provide power for lighting and equipment and make provisions for adequate heating and cooling.

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- G. Contractor shall provide paper, and service and maintenance contract, for dedicated copiers and multi-function machines.
- H. Contractor shall arrange with the telephone utility and provide and pay for specified temporary telephone service in the Architect's and Inspector's Field Office.
 - 1. Maintain service for the duration of operations under this Contract.
- I. Contractor shall provide for the storage of tools and equipment.
- J. Mobile trailers complying with the specified Field Office requirements are acceptable.
- K. Field offices are subject to approval by Owner and Architect.

2.3 CONTRACTOR'S FIELD OFFICE

- A. Furnish and install a temporary Contractor's Field Office for use by the Contractor's superintendent, complete with meeting space, drinking water, plan table, lighting, adequate storage facilities, and telephone and duplication service as specified.
- B. Construction:
 - 1. Minimum size to be 250 square feet with minimum 150 square feet dedicated to meeting space.
 - 2. Minimum width to be 10'.
 - 3. Flooring to be VCT or sheet vinyl (no carpet).
 - 4. Trailer to be manufactured after 2010.
- C. Furnishings:
 - 1. One (1) 36" x 120" conference table.
 - 2. Ten (10) folding chairs for use as needed.
 - 3. One (1) 36" x 144" plan table.
 - 4. One (1) plan rack with plan capacity appropriate for the size of project.
 - 5. One hot/cold bottled water dispenser with maintenance for life of contract.
- D. Temporary Telephone and Internet Service: Provide the following minimum service.
 - 1. One direct-line voice telephone.
 - 2. One direct-line for receiving facsimile transmissions to the multi-function machine specified below. Automatic voice/fax switching is acceptable.
 - 3. Direct internet access with service capable of sending and receiving large files.
 - 4. Minimum downstream Speed 50.0 Mbps and Upstream Speed 25 Mbps,
- E. Duplication: Provide the following minimum electronics.
 - 1. Multi-Function Copy/Scanner/Facsimile (FAX) Machine:

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- a. Type: Color laser.
 - b. Auto feed with collating capabilities.
 - c. Paper Sizes: 8-1/2" x 11" and 11" x 17".
 2. Network System: 801.11g wireless router with 4 Ethernet ports.
 3. Cables and Wiring: All necessary cables and wiring to connect the above components.
 4. Provide hardware and/or software support for items above.
- F. Provide additional facilities as agreed upon by Owner and Contractor.

2.4 TEMPORARY UTILITIES

- A. General: Provide water, electricity, gas, fire protection and other specified utility services required during construction and extend temporary service lines to construction areas to allow use by all trades and subcontractors.
- B. Telephone:
1. In addition to requirements for phones in Field Offices, Contractor and its Superintendent shall have a cell phone for communication with the Architect and Owner when at the Project site.
- C. Temporary Water:
1. Owner will provide source and pay for water for construction purposes from existing available source(s) on site. This does not include use of hydrants or off-site sources. If necessary provide and pay for these services.
 2. Provide temporary connections to source and sufficient hose or pipe to carry water to every required part of construction.
 3. Drinking Water Facilities: Provide clean, sanitary and adequate drinking water.
- D. Temporary Electrical Facilities:
1. Electrical Service: Provide such temporary electrical power and facilities as necessary to supply lighting for work operations and power for portable power driven tools and for testing.
 2. Owner will provide temporary power free of charge from existing outlets. If existing sources are insufficient, provide and pay for temporary service from off-site.
 3. Construction Requirements: Construct and maintain all temporary electrical facilities in accordance with division of Industrial Safety "Electrical Safety Orders" (ESO), Public Utilities Commission "Rules for Overhead Line Construction" (G.O. 95), and requirements of equipment used for these facilities shall be in good and safe condition, but need not be new.
- E. Temporary Heat and Ventilation:

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1. Provide heat and ventilation to protect work and materials and to keep humidity down to extent required to prevent corrosion of metal and to prevent dampness or mildew which is potentially damaging to materials and finishes. In addition, provide heat and ventilation prior to and during specific work operations, as follows
 - a. Provide sufficient heat to produce temperature of not less than 65 degrees F for 7 days prior to placing of interior finish materials and throughout application of drywall, painting and laying of resilient flooring materials.
 - b. Provide sufficient heat to maintain temperature of not less than 60 degrees after finishing trades are complete and until final acceptance or occupancy by Owner.
 2. Fuel, equipment and method of heating and ventilating shall be approved by Architect.
- F. Trash Removal:
1. Store trash or rubbish resulting from construction within the Contract work area.
 2. Provide the necessary on-site containers for the collection of recycling materials, waste materials and debris.
 3. Remove recycling materials, waste materials and debris from the site regularly and dispose of at recycling centers or legal disposal sites.
 4. Keep the work area clean at all times. Increase frequency of trash removal when requested by the Owner to conform to this requirement.
 5. Waste material and debris shall not be buried or burned at the site.
 6. See additional requirement in Section 01 7419, Construction Waste Management and Disposal.

2.5 SANITARY FACILITIES

- A. Toilet Facilities: Provide sufficient suitably enclosed chemical toilets with urinal for use workers on project.
1. Toilets shall be in place at the time work starts and maintained until the permanent toilet facilities are in operation if approved for use by the Owner.
 2. Temporary toilets shall be of the chemical type.
 3. The number and maintenance of temporary toilets shall meet the requirements of State and local health regulations and ordinances.
 4. Locate on the site so as not to be visually offensive and in locations acceptable to the Owner.
 5. Sanitary waste from the portable toilets shall be collected as required but not more than weekly.
- B. Washing Facilities: Provide properly mounted and adequate wash sinks connected to water supply; in location as approved by Architect.

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2.6 CONSTRUCTION AIDS

- A. General: Erect, equip, operate, and maintain all construction equipment in strict accordance with applicable statutes, laws, ordinances, rules, and regulations of authorities having jurisdiction; including insurance companies, with regard to safety, operation and fire hazard.
- B. Provide and maintain scaffolding, staging, runways and similar equipment, as needed. Coordinate use and furnishing with subcontractors.
- C. Provide and maintain hoists and construction elevators, including elevators for hoisting workers; complete with operators, power and signals, as necessary for operation. Comply with the following:
 - 1. California Title 8, State Elevator Safety Order 3041c, and other applicable state and local codes.
 - 2. "American National Standard Safety Code for Elevators, Dumbwaiters, Escalators, and Moving Walks," ANSI A17.1.
 - 3. California Elevator Safety Construction Code.

2.7 ENCLOSURES, FENCING AND BARRICADES

- A. General: Provide and maintain barricades, fencing, shoring, pedestrian walkways including attached lights, other lights, and other safety precautions to properly guard against personal injury and property damage as prescribed by authority having jurisdiction; including insurance companies.
- B. Attention is directed to Safety Orders issued by State of California, Division of Industrial Safety. Contractor shall obtain copies of such Safety Orders as are applicable to type of work to be performed, shall be governed by requirements thereof in all construction operations, and shall fully inform subcontractors and material suppliers as to the requirements of applicable Safety Orders.
- C. Contractor's Corporation Yard: Locate where shown or agreed on with Owner and Architect. Enclose with fence and gates as required for security, and as approved.
- D. Provide and maintain 6 foot high temporary fencing around entire work area to keep unauthorized personnel from accessing the area. Protect work in place from damage, including fields, roads, landscaping, and other existing site improvements to remain. No work is allowed outside the designated construction boundary.
- E. The Architect, the Owner, and field inspectors are not hired to review or approve safety procedures followed by the Contractor.

2.8 SITE ACCESS AND PARKING

- A. Parking: On-site parking after occupancy may be limited or may not be permitted during the school year due to limited existing conditions. Check with District office to ascertain parking availability and do not park on-site if not permitted.

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- B. Entrance to Work Site: Contractor and his employees shall use certain access roads or entrance ways as indicated on Drawings or as agreed to by Architect and Owner. Access shall not interfere with on-going operations, if any. Maintain these roads in satisfactory condition during the Contract time, and repair damages attributable to work of this project at intervals as needed. At completion of Contract, roads and entrance ways shall be left in condition at least equal to that existing at start of Contract, except as may be otherwise required by Contract Documents.
- C. Temporary access roads are to be provided by and completely removed by the Contractor upon completion of work. Place material such as base rock to provide and maintain safe access to temporary facilities, temporary parking and all areas of work required for continuing operations during winter months so that work may proceed in accordance with project schedule. Contractor is to restore these areas to condition at least equal to that at start of Contract or improve as required in the Contract Documents. All traffic is restricted to these access roads and the designated construction boundary.
- D. Site Storage and Work Areas: Owner will allocate available on-site storage and work areas to Contractor, subject to change as may be necessary by job progress, such as site development or other intervening work. If necessary, Contractor shall obtain off-site facilities for storage at his expense. No storage will be allowed beyond the designated construction boundary, or within designated Fire Lane.
- E. Regulations: Observe and comply with rules and regulations in effect at occupied campuses or other facilities, including, but not restricted to, parking and traffic regulations, security restrictions, and hours of access.
- F. Use of public Sidewalks and Streets (if applicable): Make arrangements with public authorities for temporary use of streets and sidewalks for offices, shops, storage, etc.. Abide by rules, regulations, and ordinances, obtain permits, and pay fees therefor.

2.9 TEMPORARY CONTROLS

- A. Debris Control: Keep work and storage areas clean and free of debris. Dispose of debris off premises, as it accumulates. Pay all fees required for use of public dumps. Burning on premises is prohibited.
- B. Dust Controls:
 - 1. Indoor Operations: Control dust resulting from indoor construction operations by localizing it to greatest practicable extent using temporary partitions, curtains, or other means which will prevent spread of dust beyond immediate work area. Duct openings and other openings communicating with other parts of building shall have effective temporary closures.
 - 2. Outdoor Operations: Use water wagons or spray from hoses to control dust created by outdoor work operations. Comply with all local and state dust control ordinances.
- C. Dewatering Facilities: Provide and maintain dewatering and pumping facilities to keep site reasonably dry, and to protect materials and installed work from water damage until

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dewatering is no longer required. Dewatering shall also include dewatering of trenches and footings due to surface run-off or sub-surface drainage facilities encountered, interrupted or damaged. Contractor is responsible for providing proper drainage and conditions at utility trenches, footing excavations or any other excavation as necessary for completing backfilling and compaction operations.

- D. Temporary Shoring: Provide all necessary shoring at trenches or other excavations as required to stabilize the trench or excavation walls. Shoring shall be provided in strict accordance with applicable statutes, laws, ordinances, rules, and regulations of authorities having jurisdiction
- E. Security: Contractor is responsible for security of areas of its work during entire time of Contract. Make good all damages to the work and loss of materials due to vandalism or theft, within this responsibility. This includes damages due to construction activities caused to existing facilities.
- F. Contractor may wish to provide a security force at its expense. The Owner will not provide any monitoring for security purposes.
- G. Use and Storage of Hazardous or Flammable Materials:
 - 1. Use and store hazardous or flammable chemicals, liquids, or gases brought into the Project site in approved containers, conforming to local, state, and national fire codes.
 - 2. Use hazardous materials in a manner that will prevent their accidental release into other areas.
 - 3. Do not discard hazardous materials into the jobsite waste-disposal facilities.
 - 4. Remove empty containers from the premises immediately, and disposed of in a legal manner.
- H. Welding: There shall be at the jobsite adequate shields, guards, or covering placed so as to protect adjacent persons or property during the progress of work requiring welding and cutting equipment including heat, flame, or spark-producing devices.

2.10 WINTERIZATION

- A. Provide winterization preparations as required for the full duration of the project. Necessary efforts shall be taken to ensure that work may proceed on the project during normal, expected weather conditions based on the project schedule.
- B. Access onto and around the site shall be maintained during wet conditions by placement of gravel or other material. Such materials shall be removed to allow installation of specified finish material.
- C. On-site water shall be collected and controlled until storm drainage and roof drain systems are complete, to prevent damage or delay due to runoff, in accordance with the SWPPP.

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- D. Contractor shall take other measures necessary, including but not limited to, temporary roofing, protection of openings, interior conditioning, etc.

2.11 FIRE ALARM, INTRUSION ALARM AND FIRE SPRINKLER SYSTEMS

A. Existing Systems:

1. Prior to start of demolition, the Contractor shall fully test the fire and intrusion alarms systems in the presence of district personnel to determine the working status of the systems. The test results shall be coordinated with the Owner's Project Inspector, documented and provided to the Owner and Architect.
2. During construction, the Contractor shall protect and maintain the fire and intrusion alarm systems and the fire sprinkler protection systems of the existing and completed buildings. Failure to provide such protection and maintenance shall result in the Contractor assuming full responsibility for all existing and new unprotected buildings and property - whether a part of the Contract or not.

B. Fire Protection During Construction:

1. General: Comply with NFPA 241, "Standard for Safeguarding Construction, Alteration, and Demolition Operations" and any additional temporary fire protection requirements of Owner's Insurance Representative and governing authorities.
2. During demolition and construction phases, the Contractor shall provide fire safety precautions as described in and required by the California Fire Code, Chapter 33 – Fire Safety during Construction and Demolition. Safety measures include but are not limited to maintaining fire department access, cutting and welding precautions and maintaining water supplies for firefighting purposes.
3. In the event the Contractor discovers utilities not identified in the Contract Drawings or specifications, the Contractor shall immediately notify the Architect and the utility owner by the most expeditious means available and later confirm in writing.
4. Existing building utilities shall not be interrupted during normal operating hours.
5. Fire Extinguishers:
 - a. During the progress of work, there shall be at the jobsite an adequate number and type of fire extinguishers accessible for use.
 - b. Provide Type A extinguishers at locations of low-potential hazard for either electrical or grease-oil-flammable liquids fires; provide Type ABC dry chemical extinguishers at other locations; comply with recommendations of NFPA No. 10.
 - c. Post warning and quick-instructions at each extinguisher location, and instruct personnel at Project site, at time of their first arrival, on proper use of extinguishers and other available facilities at Project site.
6. Provide temporary, battery operated, heat detectors until permanent detection and alarm system is activated. Locate based on area layout including separation of spaces.

C. Smoking:

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1. Contractor shall prohibit smoking in all areas of the Project and shall use due diligence to see that such prohibition is enforced.
2. No Smoking signs shall be furnished and posted in accordance with governing fire regulations.

2.12 EXISTING CONDITIONS

- A. Before commencement of work on the site, take digital photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.
- B. Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as cracking or other damage caused by site preparation, earthwork, and building construction operations.
- C. Submit digital file and prints as specified for periodic construction photographs.
- D. Submit before Work begins.

PART 3 - EXECUTION

3.1 USE OF PERMANENT SYSTEMS FOR CONSTRUCTION PURPOSES

- A. Obtain Owner's prior written authorization of use of permanent systems. Authorization will indicate:
 1. Reason for use.
 2. Condition of use.
 3. Which parts of system may be used.
 4. Disconnection from source, restoration, and cleaning of system.

3.2 MAINTENANCE AND REMOVAL

- A. Maintain all temporary facilities and controls as long as needed for safe and proper completion of Work; remove all such temporary facilities and controls as rapidly as progress of Work will permit.
- B. Non-compliance with requirements within this Section may result in payment being withheld and/or deductive change orders for lack of proper facilities and controls. If necessary, the Owner will provide such facilities and controls required and back-charge the Contractor.

3.3 ADJUSTING

- A. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

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- B. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
- C. Restore existing facilities used for temporary services to specified or to original condition.

3.4 CLEAN UP

- A. Contractor shall be responsible for controlling, containing and cleaning up of all construction debris throughout construction period.
- B. Full compensation for cleanup shall be included in the Contract. No separate compensation will be allowed for work pertaining to cleanup or disposal of material.

END OF SECTION

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PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: VOC restrictions for product categories listed below under Article "DEFINITIONS" and in compliance with the following.
 - 1. California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green".
- B. All products of each category that are installed in the project must comply; applicable laws and ordinances do not allow for partial compliance.
- C. Listing of a product in these Specifications shall not be construed as a solicitation or requirement to use any product or combination of products in violation of the requirements of South Coast Air Quality Management District Rule No.1168, as described in Rule 1168(g).
 - 1. If a listed product does not meet the requirements of this rule, request approval for use of an alternate product by the same or another manufacturer meeting the requirements of this rule.
 - 2. Do not use products which do not meet the requirements of this rule.

1.2 RELATED REQUIREMENTS

- A. Divisions 01 through 33 contain related requirements specific to the work of each of these Sections. Requirements may or may not include reference to this section.
- B. Section 01 8113, Sustainable Design Requirements.

1.3 REFERENCES

- A. California Green Building Standards Code, edition as noted on the Drawings, as adopted by the California Division of the State Architect (DSA).
- B. CRI (GLCC) - Green Label Testing Program - Approved Product Categories for Carpet Cushion; Carpet and Rug Institute; Current Edition.
- C. CRI (GLP) - Green Label Plus Carpet Testing Program - Approved Products; Carpet and Rug Institute; Current Edition.
- D. GEI (SCH) - GREENGUARD "Children and Schools" Certified Products; GREENGUARD Environmental Institute; current listings at www.greenguard.org.
- E. GreenSeal GS-36 - Commercial Adhesives; Green Seal, Inc.
- F. SCAQMD 1168 - South Coast Air Quality Management District Rule No.1168; current edition; www.aqmd.gov.

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- G. SCS (CPD) - SCS Certified Products; Scientific Certification Systems; current listings at www.scscertified.com.

1.4 DEFINITIONS

- A. VOC-Restricted Products: All products of each of the following categories when installed or applied on-site:
 - 1. Adhesives, sealants, and sealer coatings, regardless of specification section or division.
 - 2. Paints and coatings.
 - 3. Carpet and resilient flooring.
 - 4. Composite wood products; plywood, particleboard, wood fiberboard.
- B. Adhesives: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.
- C. Sealants: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.

1.5 SUBMITTAL REQUIREMENTS

- A. Product Data: For each VOC-restricted product used in the project, submit product data showing compliance, except when another type of evidence of compliance is required.
- B. Evidence of Compliance: Submit for each different product in each applicable category.
 - 1. Identify evidence submittals with the words "CAL-Green VOC Compliance Report".
- C. Installer Certifications for Accessory Materials: Require each installer of any type of product, (not just the products for which VOC restrictions are specified) to certify that either 1) no adhesives, joint sealants, paints, coatings, or composite wood or agrifiber products have been used in the installation of his products, or 2) that such products used comply with these requirements.
 - 1. Use the form following this Section for installer certifications.

1.6 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this Section.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General:

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1. Provide products conforming to local, State and Federal government requirements limiting the amount of volatile organic compounds contained in the product, for its intended application. If specified product exceeds current requirement, provide conforming product at no additional cost.
 2. Provide only products having volatile organic compound (VOC) content not greater than required by South Coast Air Quality Management District Rule No.1168 and less where required by code.
 - a. These products may be specified in multiple Sections throughout these Specifications.
- B. Adhesives (Including Carpet Adhesives): Comply with Title 24, Part 11, Table 5.504.4.1.
1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Report of laboratory testing performed in accordance with requirements.
 - b. Published product data showing compliance with requirements.
 - c. Certification by manufacturer that product complies with requirements.
- C. Joint Sealants: Comply with Title 24, Part 11, Table 5.504.4.2.
1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Report of laboratory testing performed in accordance with requirements.
 - b. Published product data showing compliance with requirements.
 - c. Certification by manufacturer that product complies with requirements.
- D. Aerosol Adhesives: Comply with Title 24, Part 11, Table 5.504.4.1. and California Code of Regulations Title 17, Section 94507.
1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Current GreenSeal Certification.
 - b. Report of laboratory testing performed in accordance with GreenSeal GS-36 requirements.
 - c. Published product data showing compliance with requirements.
- E. Paints and Coatings: Comply with Title 24, Part 11, Table 5.504.4.3; California Air Resources Board, Architectural Coatings Suggested Control Measure, February 1, 2008.
1. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
 - a. Evidence of Compliance: Acceptable types of evidence are:
 - 1) Report of laboratory testing performed in accordance with requirements.
 - 2) Published product data showing compliance with requirements.
 - 3) Certification by manufacturer that product complies with requirements.

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2. Provide coatings that comply with the most stringent requirements specified in the following:
 - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
 - b. South Coast Air Quality Management District Rule No.1168.
 3. Aerosol Paints and Coatings: Comply with Title 24, Part 11, 5.504.4.3.1 and, for projects in the jurisdiction of BAAQMD, comply with VOC by weight of product limits of regulation 8, Rule 49.
- F. Carpet: Comply with Title 24, Part 11, 5.504.4.4; meet testing and product requirements of one of the following:
1. Carpet & Rug Institute "Green Label Plus".
 2. California Department of Public Health Standard Practice for testing of VOC's (Specification 01350).
 3. NSF/ANSI 140 at Gold Level.
 4. Scientific Certification Systems Sustainable Choice.
- G. Carpet Cushion: Comply with Title 24, Part 11, Table 5.504.4.1 and the following:
1. Carpet cushion installed shall meet requirements of Carpet & Rug Institute "Green Label Program".
- H. Resilient Flooring Products: Comply with Title 24, Part 11, 5.504.4.6. Fifty percent of floor area receiving resilient flooring shall have flooring complying with VOC emission limits in CHPS 2009 criteria and listed on the Low Emitting Materials List or Product Registry or certified under the Resilient Floor Covering Institute (RFCI) FloorScore program.
1. Provide documentation verifying that finish materials are certified to meet pollutant limits. Acceptable types of evidence are:
 - a. Published product data showing compliance with requirements.
 - b. Inclusion on one of the following lists:
 - 1) www.chps.net/dev/drupal/node/381
 - 2) www.rfci.com/int_FS-ProdCert.htm
 - 3) www.greenguard.org/default.aspx?tabid=135.
 - c. Other method acceptable to enforcing agency.
- I. Composite Wood Products: Comply with Title 24, Part 11, Table 5.504.4.5 formaldehyde limits for hardwood plywood, particleboard, and medium density fiberboard composite wood products.

Title 24, Part 11, Table 5.504.4.5 Composite Wood Products Maximum Formaldehyde Emissions in Parts per Million	
Product	Current limit (July 1, 2012)
Hardwood Plywood veneer core	0.05
Hardwood Plywood composite core	0.05

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Title 24, Part 11, Table 5.504.4.5 Composite Wood Products Maximum Formaldehyde Emissions in Parts per Million	
Product	Current limit (July 1, 2012)
Particleboard	0.09
Medium Density Fiberboard	0.11
Thin Medium Density Fiberboard	0.13

1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Chain of custody certifications
 - b. Published product data showing compliance with requirements.
 - c. Certification by manufacturer that product complies with requirements.
 - d. Other method acceptable to enforcing agency.

PART 3 - EXECUTION

3.1 FIELD QUALITY CONTROL

- A. Owner reserves the right to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to Owner.
- B. All additional costs to restore indoor air quality, including fines by authorities, due to installation of non-compliant products will be borne by Contractor.

3.2 RESTRICTED COMPONENTS

- A. Restricted Components:
 1. Paints and coatings shall not contain any of the following:
 - a. Acrolein.
 - b. Acrylonitrile.
 - c. Antimony.
 - d. Benzene.
 - e. Butyl benzyl phthalate.
 - f. Cadmium.
 - g. Di (2-ethylhexyl) phthalate.
 - h. Di-n-butyl phthalate.
 - i. Di-n-octyl phthalate.
 - j. 1,2-dichlorobenzene.
 - k. Diethyl phthalate.
 - l. Dimethyl phthalate.
 - m. Ethylbenzene.
 - n. Formaldehyde.
 - o. Hexavalent chromium.
 - p. Isophorone.

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- q. Lead.
- r. Mercury.
- s. Methyl ethyl ketone.
- t. Methyl isobutyl ketone.
- u. Methylene chloride.
- v. Naphthalene.
- w. Toluene (methylbenzene).
- x. 1,1,1-trichloroethane.
- y. Vinyl chloride.

3.3 ADHESIVES AND SEALANTS

- A. The following tables are taken from South Coast Air Quality Management District Rule No.1168. All products used shall comply with these limits.

Table 5.504.4.1 ADHESIVE VOC LIMIT				
Architectural Applications		Current VOC Limit		
Indoor Carpet Adhesives		50		
Carpet Pad Adhesives		50		
Outdoor Carpet Adhesives		150		
Wood Flooring Adhesive		100		
Rubber Floor Adhesives		60		
Subfloor Adhesives		50		
Ceramic Tile Adhesives		65		
VCT and Asphalt Tile Adhesives		50		
Dry Wall and Panel Adhesives		50		
Cove Base Adhesives		50		
Multipurpose Construction Adhesives		70		
Structural Glazing Adhesives		100		
Single Ply Roof Membrane Adhesives		250		
VOC Limits and Effective Dates**				
Specialty Applications	Current VOC Limit	1-1-05	7-1-05	1-1-07
PVC Welding	510			
CPVC Welding	490			
ABS Welding	400		325	
Plastic Cement Welding	350	250		
Adhesive Primer for Plastic	650		550	
Computer Diskette Manufacturing	350			
Contact Adhesive	80			
Special Purpose Contact Adhesive	250			
Tire Retread	100			
Adhesive Primer for Traffic Marking Tape	150			

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Table 5.504.4.1 ADHESIVE VOC LIMIT				
Structural Wood Member Adhesive	140			
Sheet Applied Rubber Lining Operations	850			
Top and Trim Adhesive	540			250
** The specified limits remain in effect unless revised limits are listed in subsequent columns.				
For adhesives, adhesive bonding primers, or any other primer not regulated by the above two tables and applied to the following substrates, the following limits shall apply:				
Substrate Specific Applications		Current VOC Limit		
Metal to Metal		30		
Plastic Foams		50		
Porous Material (except wood)		50		
Wood		30		
Fiberglass 80				

Table 5.504.4.2 SEALANT VOC LIMIT	
If an adhesive is used to bond dissimilar substrates together the adhesive with the highest VOC content shall be allowed.	
Sealant	Current VOC Limit
Architectural	250
Marine Deck	760
Nonmembrane Roof	300
Roadway	250
Single-Ply Roof Membrane	450
Other	420
Sealant Primers	Current VOC Limit
Architectural	
Non Porous	250
Porous	775
Modified Bituminous	500
Marine Deck	760
Other	750
For low-solid adhesives or sealants the VOC limit is expressed in grams per liter of material as determined in paragraph (b)(32); for all other adhesives and sealants, VOC limits are expressed as grams of VOC per liter of adhesive or sealant less water and less exempt compounds as determined in paragraph (b)(31).	

3.4 PAINTS AND COATINGS

- A. Architectural Paints and Coatings shall comply with VOC limits in Table 1 of ARB Architectural Coatings Suggested Control Measure, California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green" Table 5.504.4.3. All products used in this category shall comply with these limits, unless more stringent local and regional rules apply.

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Table 5.504.4.3 VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS (See Notes 2 & 3 below)	
Grams of VOC per Liter of Coating, less water and less exempt compounds	
COATING CATEGORY	Current VOC Limit 1/1/2012
Flat Coatings	50
Nonflat Coatings	100
Nonflat High Gloss Coatings	150
Specialty Coatings	
Aluminum Roof Coatings	400
Basement Specialty Coatings	400
Bituminous Roof Coatings	50
Bituminous Roof Primers	350
Bond Breakers	350
Concrete Curing Compounds	350
Concrete / Masonry Sealers	100
Driveway Sealers	50
Dry Fog Coatings	150
Faux Finishing Coatings	350
Fire Resistive Coatings	350
Floor Coatings	100
Form-Release Compounds	250
Graphic Arts Coatings (Sign Paints)	500
High-Temperature Coatings	420
Industrial Maintenance Coatings	250
Low Solids Coatings (See Note 1 below)	120
Magnesite Cement Coatings	450
Mastic Texture Coatings	100
Metallic Pigmented Coatings	500
Multicolor Coatings	250
Pretreatment Wash Primers	420
Primers, Sealers and Undercoaters	100
Reactive Penetrating Sealers	350
Recycled Coatings	250
Roof Coatings	50
Rust Preventative Coatings	250
Shellacs:	
Clear	730
Opaque	550
Specialty Primers, Sealers and Undercoaters	100
Stains	250
Stone Consolidants	450
Swimming Pool Coatings	340
Traffic Marking Coatings	100
Waterproofing Membranes	250
Wood Coatings	275
Wood Preservatives	350
Zinc Rich Primers	340
Note 1: Grams of VOC per liter of coating including water and including exempt compounds	
Note 2: Not Applicable	
Note 3: Values in this table are derived from those specified by the California Air Resources Board, Architectural Coatings Suggested Control Measure, February 1, 2008. More information is available from the Air Resources Board.	

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END OF SECTION

Installer Certification Form is Included on the Following Page

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ACCESSORY MATERIAL VOC CONTENT CERTIFICATION FORM

IDENTIFICATION:

1. Project Name: _____
2. Project No.: _____
3. Architect: _____

USE OF THIS FORM:

1. Because installers are allowed and directed to choose accessory materials suitable for the applicable installation, there is a possibility that such accessory materials might contain VOC content in excess of that permitted, especially where such materials have not been explicitly specified.
2. Contractor is required to obtain and submit this form from each installer of work on this project.
3. For each product category listed, circle the correct words in brackets: either [HAS] or [HAS NOT].
4. If any of these accessory materials has been used, attach to this form product data and MSDS sheet for each such product.

VOC content restrictions are specified in Section 01 6116.

PRODUCT CERTIFICATION: I certify that the installation work of my firm on this project:

1. [HAS] [HAS NOT] required the use of any ADHESIVES.
2. [HAS] [HAS NOT] required the use of any JOINT SEALANTS.
3. [HAS] [HAS NOT] required the use of any PAINTS OR COATINGS.
4. [HAS] [HAS NOT] required the use of any COMPOSITE WOOD or AGRIFIBER PRODUCTS.

Product data and MSDS sheets are attached.

CERTIFIED BY (Installer/Manufacturer/Supplier Firm):

Firm Name: _____

Print Name: _____

Signature: _____

Title: _____ (officer of company)

Date: _____

VOLATILE ORGANIC COMPOUND (VOC) RESTRICTIONS
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**CONSTRUCTION WASTE
MANAGEMENT AND DISPOSAL
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PART 1 - GENERAL

1.1 INCLUSION OF OTHER CONTRACT DOCUMENTS

- A. Appendix B and Division 1 are fully applicable to this Section, as if repeated herein.

1.2 SUMMARY

- A. Section includes: Requirements and procedures for ensuring optimal diversion of construction waste materials generated by the Work from landfill disposal within the limits of the Construction Schedule and Contract Sum.
 - 1. The Work of this Contract requires that a minimum of 65% by weight of the construction and demolition materials generated in the Work is diverted from landfill disposal through a combination of re-use and recycling activities.
 - 2. Alternate waste reduction methods developed in cooperation with local agencies if diversion or recycle facilities capable of compliance with CAL-Green requirements do not exist within the haul boundary of the jobsite (California Code of Regulations, Title 24, Part 11, 5.408).
 - 3. Requirements for submittal of Contractor's Construction Waste and Recycling Plan prior to the commencement of the Work.
 - 4. Contractor's quantitative reports for construction waste materials as a condition of approval of progress payments submitted to the Architect and Construction Manager.

1.3 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01 3516, Alteration Project Procedures.
- B. Section 01 5000, Temporary Facilities & Controls.
- C. Section 01 7329, Cutting and Patching.
- D. Section 01 8113, Sustainable Design Requirements.
- E. Section 02 4119, Selective Demolition.
- F. Section 31 1000, Site Clearing.

1.4 REFERENCES

- A. California Green Building Standards Code, edition as noted on the drawings, as adopted by the California Division of the State Architect (DSA).

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1.5 DEFINITIONS

- A. Class III Landfill: A landfill that accepts non-hazardous resources such as household, commercial, and industrial waste, resulting from construction, remodeling, repair, and demolition operations. A Class III landfill must have a solid waste facilities permit from the California Integrated Waste Management Board (CIWMB) and is regulated by the Enforcement Agency (EA).
- B. Construction and Demolition Debris: Building materials and solid waste resulting from construction, remodeling, repair, cleanup, or demolition operations that are not hazardous as defined in California Code of Regulations, Title 22, Section 66261.3 et seq. This term includes, but is not limited to, asphalt concrete, Portland cement concrete, brick, lumber, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, plastic pipe, and steel. The debris may be commingled with rock, soil, tree stumps, and other vegetative matter resulting from land clearing and landscaping for construction or land development projects.
- C. C&D Recycling Center. A facility that receives only C&D material that has been separated for reuse prior to receipt, in which the residual (disposed) amount of waste in the material is less than 10% of the amount separated for reuse by weight.
- D. Disposal. Final deposition of construction and demolition or inert debris into land, including stockpiling onto land of construction and demolition debris that has not been sorted for further processing or resale, if such stockpiling is for a period of time greater than 30 days; and construction and demolition debris that has been sorted for further processing or resale, if such stockpiling is for a period of time greater than one year, or stockpiling onto land of inert debris that is for a period of time greater than one year.
- E. Enforcement Agency (EA). Enforcement agency is the authority having jurisdiction within the Project location.
- F. Inert Disposal Facility or Inert Waste Landfill: A disposal facility that accepts only inert waste such as soil and rock, fully cured asphalt paving, uncontaminated concrete (including fiberglass or steel reinforcing rods embedded in the concrete), brick, glass, and ceramics, for land disposal.
- G. Mixed Debris: Loads that include commingled recyclable and non-recyclable materials generated at the construction site.
- H. Mixed Debris Recycling Facility: A processing facility that accepts loads of commingled construction and demolition debris for the purpose of recovering re-usable and recyclable materials and disposing the non-recyclable residual materials.
- I. Recycling: The process of sorting, cleansing, treating and reconstituting materials for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating or thermally destroying solid waste.

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- J. Reuse. The use, in the same or similar form as it was produced, of a material which might otherwise be discarded.
- K. Separated for Reuse. Materials, including commingled recyclables, that have been separated or kept separate from the solid waste stream for the purpose of additional sorting or processing those materials for reuse or recycling in order to return them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace, and includes materials that have been "source separated".
- L. Solid Waste: All putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. "Solid waste" does not include hazardous waste, radioactive waste, or medical waste as defined or regulated by State law.
- M. Source-Separated: Materials, including commingled recyclables, that have been separated or kept separate from the solid waste stream at the point of generation, for the purpose of additional sorting or processing of those materials for reuse or recycling in order to return them to the economic mainstream in the form of raw materials for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace.
- N. Waste Hauler: A company that possesses a valid permit from the local waste management authority having jurisdiction to collect and transport solid wastes from individuals or businesses for the purpose of recycling or disposal.

1.6 SUBMITTALS

- A. Refer to Section 01 3300.
- B. Contractor's Construction Waste and Recycling Plan:
 - 1. Review Contract Documents and estimate the types and quantities of materials under the Work that are anticipated to be feasible for on-site processing, source separation for re-use or recycling. Indicate the procedures that will be implemented in this program to effect jobsite source separation, such as, identifying a convenient location where dumpsters would be located, putting signage to identify materials to be placed in dumpsters, etc.
 - 2. Prior to commencing the Work, submit Contractor's Construction Waste and Recycling Plan. Submit in format provided with this specification section. The Plan must include, but is not limited to the following:
 - a. Contractor's name and project identification information;
 - b. Procedures to be used;
 - c. Materials to be re-used and recycled;

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- d. Estimated quantities of materials;
 - e. Names and locations of re-use and recycling facilities/sites;
 - f. Tonnage calculations that demonstrate that Contractor will re-use and recycle a minimum of 65% by weight of the construction waste materials generated by the Work.
 - 3. Contractor's Construction Waste and Recycling Plan must be approved by the Architect prior to the start of Work.
 - 4. Contractor's Construction Waste and Recycling Plan will not otherwise relieve the Contractor of responsibility for adequate and continuing control of pollutants and other environmental protection measures
- C. Contractor's Reuse, Recycling, and Disposal Report:
- 1. Submit Contractor's Reuse, Recycling, and Disposal Report on the form provided with this specification section with each Application & Certificate for Payment. Failure to submit the form and its supporting documentation will render the Application & Certificate for Payment incomplete and delay progress payments. If applicable, include manifests, weight tickets, receipts, and invoices specifically identifying the Project for re-used and recycled materials:
 - a. Reuse of building materials or salvage items on site (i.e. crushed base or red clay brick).
 - b. Salvaging building materials or salvage items at an offsite salvage or reuse center (i.e. lighting, fixtures).
 - c. Recycling source separated materials on site (i.e. crushing asphalt/concrete for base course, or grinding for mulch).
 - d. Recycling source separated material at an offsite recycling center (i.e. scrap metal or green materials).
 - e. Use of material as Alternative Daily Cover (ADC) at landfills.
 - f. Delivery of soils or mixed inerts to an inert landfill for disposal (inert fill).
 - g. Disposal at a landfill or transfer station (where no recycling takes place).
 - h. Other (describe).
- D. Contractor's Reuse, Recycling, and Disposal Report must quantify all materials generated in the Work, disposed in Class III landfills, or diverted from disposal through recycling. Indicate zero (0) if there is no quantity to report for a type of material. As indicated on the form:
- 1. Report disposal or recycling either in tons or in cubic yards. If scales are available at disposal or recycling facility, report in tons; otherwise, report in cubic yards. Report in units for salvage items when no tonnage or cubic yard measurement is feasible.
 - 2. Indicate locations to which materials are delivered for reuse, salvage, recycling, accepted as daily cover, inert backfill, or disposal in landfills or transfer stations.

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3. Provide legible copies of weight tickets, receipts, or invoices that specifically identify the project generating the material. Said documents must be from recyclers and/or disposal site operators that can legally accept the materials for the purpose of re-use, recycling, or disposal.
 - a. Indicate project title, project number, progress payment number, name of the company completing the Contractor's Report and compiling backup documentation, the printed name, signature, and daytime phone number of the person completing the form, the beginning and ending dates of the period covered on the Contractor's Report, and the date that the Contractor's Report is completed.
- E. Demonstrate compliance with California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green" 5.408.2, to the satisfaction of the enforcing agency.
 1. Landfill **[and Incinerator]** Disposal Records: Indicate receipt and acceptance of waste by landfills **[and incinerator]** facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
 2. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

PART 2 - PRODUCTS-NOT USED

PART 3 - EXECUTION

3.1 WASTE MANAGEMENT PLAN

- A. Implement a construction waste management plan that complies with California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green" 5.408.2:
 1. Identifies materials to be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale.
 2. Determines if materials will be sorted on-site or mixed.
 3. Identifies diversion facilities where material collected will be taken.
 4. Specifies that quantities of diverted material will be calculated by weight or volume, but not both.

3.2 SALVAGE, RE-USE, RECYCLING AND PROCEDURES

- A. Identify re-use, salvage, and recycling facilities.
- B. Develop and implement procedures to re-use, salvage, and recycle new construction and excavation materials, based on the Contract Documents, the Contractor's

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Construction Waste and Recycling Plan, estimated quantities of available materials, and availability of recycling facilities. Procedures may include on-site recycling, source separated recycling, and/or mixed debris recycling efforts.

1. Identify materials that are feasible for salvage, determine requirements for site storage, and transportation of materials to a salvage facility.
2. Source separate new construction, excavation and demolition materials including, but not limited to the following types
 - a. Asphalt.
 - b. Concrete, concrete block, slump stone (decorative concrete block), and rocks.
 - c. Drywall.
 - d. Green materials (i.e. tree trimmings and land clearing debris).
 - e. Metal (ferrous and non-ferrous).
 - f. Miscellaneous Construction Debris.
 - g. Paper or cardboard.
 - h. Red Clay Brick.
 - i. Reuse or Salvage Materials
 - j. Soils.
 - k. Wire and Cable.
 - l. Wood.
 - m. Other (describe)
3. Miscellaneous Construction Debris: Develop and implement a program to transport loads of mixed (commingled) new construction materials that cannot be feasibly source separated to a mixed materials recycling facility

3.3 DISPOSAL OPERATIONS AND WASTE HAULING

- A. Legally transport and dispose of materials that cannot be delivered to a source separated or mixed recycling facility to a transfer station or disposal facility that can legally accept the materials for the purpose of disposal.
- B. Use a permitted waste hauler or Contractor's trucking services and personnel. To confirm valid permitted status of waste haulers, contact the local solid waste authority having jurisdiction.
- C. Become familiar with the conditions for acceptance of new construction, excavation and demolition materials at recycling facilities, prior to delivering materials.
- D. Deliver to facilities that can legally accept new construction, excavation and demolition materials for purpose of re-use, recycling, composting, or disposal.
- E. Do not burn, bury or otherwise dispose of solid waste on the project job-site.

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3.4 RE-USE AND DONATION OPTIONS

- A. Implement a re-use program to the greatest extent feasible. Options may include:
 - 1. California Materials Exchange (CAL-MAX) Program is sponsored by the California Integrated Waste Management Board. CAL-MAX is a free service provided by the California Integrated Waste Management Board, designed to help businesses find markets for materials that traditionally would be discarded. The premise of the CAL-MAX Program is that material discarded by one business may be a resource for another business. To obtain a current Materials Listings Catalog, call CAL-MAX/California Integrated Waste Management Board at (916) 255-2369 or send a FAX to (916) 255-2200. The CALMAX Catalog is available through the Internet Site at <http://www.ciwmb/ca.gov/calmax>.

3.5 REVENUE

- A. Revenues or other savings obtained from recycled, re-used, or salvaged materials shall accrue to Contractor unless otherwise noted in the Contract Documents

- END OF SECTION -

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Last Updated: December 13, 2017*

SECTION 01 7419A
CONTRACTOR'S CONSTRUCTION WASTE AND RECYCLING PLAN
(Submit After Award of Contract and Prior to Start of Work)

Project Title:							
Contract or Work Order No.:							
Contractor's Name:							
Street Address:							
City:			State:		Zip:		
Phone: ()			Fax: ()				
E-Mail Address:							
Prepared by: (Print Name)							
Date Submitted:							
Project Period:		From:		TO:			
Reuse, Recycling or Disposal Processes To Be Used							
Describe the types of recycling processes or disposal activities that will be used for material generated in the project. Indicate the type of process or activity by number, types of materials, and estimated quantities that will be recycled or disposed in the sections below:							
01 - Reuse of building materials or salvage items on site (i.e. crushed base or red clay brick)							
02 - Salvaging building materials or salvage items at an off site salvage or re-use center (i.e. lighting, fixtures)							
03 - Recycling source separated materials on site (i.e. crushing asphalt/concrete for reuse or grinding for mulch)							
04 - Recycling source separated materials at an off site recycling center (i.e. scrap metal or green matls)							
05 - Recycling commingled loads of C&D matls at an off site mixed debris recycling center or transfer station							
06 - Recycling material as Alternative Daily Cover at landfills							
07 - Delivery of soils or mixed inerts to an inert landfill for disposal (inert fill).							
08 - Disposal at a landfill or transfer station.							
09 - Other (please describe) _____							
Types of Material To Be Generated							
Use these codes to indicate the types of material that will be generated on the project							
A = Asphalt		C = Concrete		M = Metals		I = Mixed Inert G = Green Matls	
D = Drywall		P/C=Paper/Cardboard		W/C = Wire/Cable		S= Soils (Non Hazardous)	
M/C = Miscellaneous Construction Debris		R = Reuse/Salvage		W = Wood		O = Other (describe)	
Facilities Used: Provide Name of Facility and Location (City)							
Total Truck Loads: Provide Number of Trucks Hauled from Site During Reporting Period							
Total Quantities: If scales are available at sites, report in tons. If not, quantify by cubic yards. For salvage/reuse items, quantify by estimated weight (or units).							
SECTION I - RE-USED/RECYCLED MATERIALS							
Include all recycling activities for source separated or mixed material recycling centers where recycling will occur.							
Type of	Type	Facility to be			Total Truck	Total Quantities	
Material	of Activity	Used/Location			Loads	Tons	Cubic YD Other Wt.
(ex.) M	04	ABC Metals, Los Angeles			24	355	
a. Total Diversion					0	0	0 0

[PROJECT TITLE]
[DATE]

Contractor's Construction Waste and Recycling Plan
Section 01 7419A-1

SECTION 01 7419A
CONTRACTOR'S CONSTRUCTION WASTE AND RECYCLING PLAN
Continued

SECTION II - DISPOSED MATERIALS						
<i>Include all disposal activities for landfills, transfer stations, or inert landfills where no recycling will occur.</i>						
Type of Material	Type of Activity	Facility to be Used/Location		Total Truck Loads	Total Quantities	
					Tons	Cubic YD
(ex.) D	08	DEF Landfill, Los Angeles		2	35	
b. Total Disposal					0	0

SECTION III - TOTAL MATERIALS GENERATED						
<i>This section calculates the total materials to be generated during the project period (Reuse/Recycle + Disposal = Generation)</i>						
					Tons	Cubic YD
a. Total Reused/Recycled					0	0
b. Total Disposed					0	0
c. Total Generated					0	0

SECTION IV - CONTRACTOR'S LANDFILL DIVERSION RATE CALCULATION						
<i>Add totals from Section I + Section II</i>						
		Tons	Cubic Yards	Other Wt.		
a. Materials Re-Used and Recycled		0				
b. Materials Disposed		0				
c. Total Materials Generated (a. + b. = c.)		0	0	0		
d. Landfill Diversion Rate (Tons Only)*		#DIV/0!				

* Use tons only to calculate recycling percentages: Tons Reused/Recycled/Tons Generated = % Recycled

Contractor's Comments (Provide any additional information pertinent to planned reuse, recycling, or disposal activities):						

Notes:						
1. Suggested Conversion Factors: From Cubic Yards to Tons (Use when scales are not available)						
Asphalt: .61 (ex. 1000 CY Asphalt = 610 tons. Applies to broken chunks of asphalt)						
Concrete: .93 (ex. 1000 CY Concrete = 930 tons. Applies to broken chunks of concrete)						
Ferrous Metals: .22 (ex. 1000 CY Ferrous Metal = 220 tons)						
Non-Ferrous Metals: .10 (ex. 1000 CY Non-Ferrous Metals = 100 tons)						
Drywall Scrap: .20						
Wood Scrap: .16						

SECTION 01 7419B
CONTRACTOR'S REUSE, RECYCLING, AND DISPOSAL REPORT
(Submit With Each Progress Payment)

Project Title:		
Contract or Work Order No.:		
Contractor's Name:		
Street Address:		
City:	State:	Zip:
Phone: ()	Fax: ()	
E-Mail Address:		
Prepared by: (Print Name)		

Date Submitted:		
Period Covered:	From:	To:

Reuse, Recycling or Disposal Processes Used

Describe the types of recycling processes or disposal activities used for material generated in the project. Indicate the type of process or activity by number, types of materials, and quantities that were recycled or disposed in the sections below:

- 01 - Reuse of building materials or salvage items on site (i.e. crushed base or red clay brick)
- 02 - Salvaging building materials or salvage items at an off site salvage or re-use center (i.e. lighting, fixtures)
- 03 - Recycling source separated materials on site (i.e. crushing asphalt/concrete for reuse or grinding for mulch)
- 04 - Recycling source separated materials at an off site recycling center (i.e. scrap metal or green matls)
- 05 - Recycling commingled loads of C&D matls at an off site mixed debris recycling center or transfer station
- 06 - Recycling material as Alternative Daily Cover at landfills
- 07 - Delivery of soils or mixed inerts to an inert landfill for disposal (inert fill).
- 08 - Disposal at a landfill or transfer station.
- 09 - Other (please describe) _____

Types of Material Generated

Use these codes to indicate the types of material that were generated on the project

A = Asphalt	C = Concrete	M = Metals	I = Mixed Inert	G = Green Matls
D = Drywall	P/C=Paper/Cardboard	W/C = Wire/Cable	S= Soils (Non Hazardous)	
M/C = Miscellaneous Construction Debris	R = Reuse/Salvage	W = Wood	O = Other (describe)	

Facilities Used: Provide Name of Facility and Location (City)

Total Truck Loads: Provide Number of Trucks Hauled from Site During Reporting Period

Total Quantities: If scales are available at sites, report in tons. If not, quantify by cubic yards. For salvage/reuse items, quantify by estimated weight (or units).

SECTION I - RE-USED/RECYCLED MATERIALS

Include all recycling activities for source separated or mixed material recycling centers where recycling occurred.

Type of Material	Type of Activity	Facilities Used/Location	Total Truck Loads	Total Quantities		
				Tons	Cubic YD	Other Wt.
(ex.) M	04	ABC Metals, Los Angeles	24	355		
a. Total Diversion			0	0	0	0

SECTION 01 7419B
CONTRACTOR'S REUSE, RECYCLING, AND DISPOSAL REPORT
Continued

SECTION II - DISPOSED MATERIALS						
<i>Include all disposal activities for landfills, transfer stations, or inert landfills where no recycling occurred.</i>						
Type of Material	Type of Activity	Facilities Used/Location	Total Truck Loads	Total Quantities		
				Tons	Cubic YD	Other Wt.
(ex.) D	08	DEF Landfill, Los Angeles	2	35		
b. Total Disposal				0	0	0

SECTION III - TOTAL MATERIALS GENERATED						
<i>This section calculates the total materials generated during the project period (Reuse/Recycle + Disposal = Generation)</i>						
				Tons	Cubic YD	Other Wt.
a. Total Reused/Recycled				0	0	0
b. Total Disposed				0	0	0
c. Total Generated				0	0	0

SECTION IV - CONTRACTOR'S LANDFILL DIVERSION RATE CALCULATION						
<i>Add totals from Section I + Section II</i>						
	Tons	Cubic Yards	Other Wt.			
a. Materials Re-Used and Recycled	0					
b. Materials Disposed	0					
c. Total Materials Generated (a. + b. = c.)	0	0	0			
d. Landfill Diversion Rate (Tons Only)*	#DIV/0!					

* Use tons only to calculate recycling percentages: Tons Reused/Recycled/Tons Generated = % Recycled

Contractor's Comments (<i>Provide any additional information pertinent to planned reuse, recycling, or disposal activities</i>):						

Notes:						
1. Suggested Conversion Factors: From Cubic Yards to Tons (Use when scales are not available)						
Asphalt: .61 (ex. 1000 CY Asphalt = 610 tons. Applies to broken chunks of asphalt)						
Concrete: .93 (ex. 1000 CY Concrete = 930 tons. Applies to broken chunks of concrete)						
Ferrous Metals: .22 (ex. 1000 CY Ferrous Metal = 220 tons)						
Non-Ferrous Metals: .10 (ex. 1000 CY Non-Ferrous Metals = 100 tons)						
				Drywall Scrap: .20		
				Wood Scrap: .16		

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements for Contract closeout.
- B. These requirements supplement those included in the General Conditions and are subject to modification upon mutual agreement between the Architect, Owner, and Contractor.

1.2 FINAL CLEANING

- A. Immediately prior to completion and occupancy, remove marks, stains, fingerprints, dust, dirt and paint drippings resulting from work of this project, both interior and exterior including roofs, walls, floors, sidewalks, paving and other finished surfaces.
- B. Contractor shall engage the services of an independent, professional cleaning service to perform final cleaning after Contractor's final clean-up is completed.
- C. Materials:
 - 1. Use only those cleaning materials that will neither create hazards to health or property, damage surfaces, and are in compliance with Proposition 65.
 - 2. Use only those cleaning materials and methods recommended by manufacturer of the surface material to be cleaned.
 - 3. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.
 - 4. Use only environmentally acceptable "green" cleaning products.
- D. Wash tile, plumbing and other fixtures clean.
- E. Clean and polish hardware and other unpainted metals.
- F. Remove temporary labels, tags and paper covering.
- G. Glass, both interior and exterior, and mirrors shall be cleaned to the level expected by a professional window washer.

1.3 REQUIREMENTS PREPARATORY TO FINAL ACCEPTANCE

- A. Temporary facilities shall be removed from site.
- B. Plumbing, mechanical and electrical equipment shall operate quietly and free from vibration. Properly adjust, repair, balance, or replace equipment producing objectionable noise or vibration in occupied areas of building. Provide additional brackets, bracing, etc., to prevent objectionable noise or vibration. Systems shall operate without humming, surging, or rapid cycling.
- C. Operating instructions for equipment shall be properly mounted and posted.

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- D. Training: Provide training and orientation of Owner's operating staff in proper care and operation of equipment, systems and controls including:
 - 1. Resetting fire rated overhead coiling doors.
 - 2. Kitchen equipment.
 - 3. Fire protection systems.
 - 4. Plumbing equipment.
 - 5. HVAC equipment.
 - 6. Control systems.
 - 7. Signal systems.
 - 8. Telephone communication systems.
 - 9. Data systems.
 - 10. Television/Video systems.
 - 11. Fire alarm systems.
 - 12. Intrusion alarm systems.
 - 13. Stage lighting systems.
 - 14. Sound systems.
 - 15. Other systems as required in the specifications or needed to properly instruct Owner's representatives.
 - 16. Three copies of certificate, signed by the Owner's representative, attesting to their having been instructed.
- E. The following shall be submitted in accordance with Section 01 3300, Submittal Procedures.
 - 1. Completed Record Drawings signed by Contractor and Inspector.
 - 2. Maintenance and Operating instructions and manuals.
 - 3. Certifications completed and signed.
 - 4. Guarantees and warranties as specified and required by the General Conditions.
- F. Contractor's Final Verified Report (Form DSA 6-C) and other Reports and Affidavits required by Division of State Architect shall be submitted; originals and one copy.
- G. Extra Stock shall be delivered and acknowledged by the Owner in quantities specified.

1.4 PUNCH LIST

- A. Prior to Architect's punch list, Contractor shall prepare and address initial deficiencies list for all work. Upon completion, this list shall be sent to the Architect.
- B. Contractor shall notify Architect when Contractor, with concurrence of Inspector, feels project is complete enough for preparation of Architect's punch list.
- C. Architect will then notify appropriate consultants including civil, mechanical and electrical engineers, landscape architect, food service designer and others as needed, to make

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their inspections and prepare "punch lists". Consultant "punch lists" will be completed before Architect will make its "punch list".

- D. Architect will prepare a "punch list".
- E. Punch lists will be published separately within 14 days of Architect's walk through.
- F. Work on the punch list, except minor items as determined by the Architect, shall be completed prior to completion and occupancy.

1.5 FINAL ACCEPTANCE

- A. After requirements preparatory to Final Acceptance have been completed as hereinbefore specified, Contractor shall notify Architect to perform acceptance tour. Notice shall be given at least three days in advance of the time the acceptance tour is to be performed.
- B. Contractor or its principal superintendents authorized to act in behalf of Contractor, shall accompany Architect and Inspector on acceptance tour, as well as any principal subcontractors that Architect may request to be present.
- C. If work has been completed in accordance with Contract Documents, and no further corrective measures are required, Architect will recommend Final Acceptance to the Owner and initiate the filing of the Notice of Completion.
- D. If work has been substantially completed in accordance with Contract Documents, and only minor corrective measures are required, Architect will recommend that Owner conditionally accept Project and file Notice of Completion based upon Contractor's assurance that corrective measures will be completed within shortest practicable time period (but absolutely not later than 30 days).
- E. If work has not been substantially completed in accordance with Contract Documents, and several or many corrective measures are still required, Architect will recommend one or the other of the following:
 - 1. That Owner accept Project and file Notice of Completion only upon receiving from Contractor a Cashier's Check in amount sufficient to account for corrective measures still required, in the event that Owner had to have others complete the work.
 - 2. That Owner not accept project and not file Notice of Completion. Instead, based on information gathered from acceptance tour, Contractor will be required to complete all corrective measures and then call for another project acceptance tour following procedure outlined above.
- F. Should any corrective measures remain incomplete at time final payment is due, Contractor shall provide Owner with Money Order(s) or Cashier's Check in exchange for retention. Money Order(s) or Cashier's Check shall be in an amount one and one-half times the agreed estimated cost as determined by the Architect.

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- G. Upon Final Acceptance of Project by Owner, Contractor shall submit his request for final payment, less retention. Retention payment will not be made by Owner until 35 days after board acceptance and filing of Notice of Completion with County Recorder, as specified in General Conditions.
- H. Retention payment will not be made until Contractor has filed the required Form DSA 6-C with DSA with two original copies to the Architect.

1.6 CLOSEOUT CHECKLIST

- A. The following items are to be fully completed and/or submitted as a condition for final acceptance of the project (as applicable)
 - 1. Specifications and Plans Review for Closeout
 - 2. Fire Alarm System Certification
 - 3. Megger Grounding Test Certificate
 - 4. Certificate of Chlorination and Sterilization
 - 5. Certificate of Compliance for Building Materials
 - 6. Contractor's Reuse, Recycling and Disposal Report
 - 7. Environmental Product Certification as required under Section 01 3543
 - 8. Indoor Air Quality Report (Section 01 3543)
 - 9. Roofing Certification
 - 10. Certifications as required under Section 01 3300.
 - 11. Air Balance Report
 - 12. Operation & Maintenance Manuals
 - 13. Guarantees/Warranties
 - 14. Training
 - 15. Record Drawings
 - 16. Labels and name plates on all electrical panels
 - 17. Keys (from Contractor - properly labeled):
 - a. water shut off key
 - b. gate valve key
 - c. electrical panel keys
 - d. communication panel keys
 - e. all cabinet keys
 - f. toilet accessories
 - g. extra door keys as required by specifications
 - 18. All deferred approval stamps for items listed on the Drawing Title Page:
 - a. Substitutions (when applicable)
 - 19. Punch List Items Completed
 - 20. Extra Stock of Specified Items, delivered to Owner (including documents)
 - 21. Back charges Resolved

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- 22. Removal of Stop Notices
- 23. Contractor's Final Verified Reports (DSA 6-C)

END OF SECTION

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Last Updated: July 13, 2018

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Requirements for explicit warranties, bonds, and service and maintenance contracts specified in the individual Sections and supplementing the requirements included in Appendix B.
 - 2. Guarantee and warranty period inspections.
 - 3. Forms for Guarantees/Warranties.

1.2 RELATED REQUIREMENTS

- A. Section 01 3300, Submittal Procedures; additional requirements and submittal procedures for Contractor guarantees/warranties.

1.3 DEFINITIONS

- A. Standard Product Guarantees/Warranties: Preprinted written warranties published by individual manufacturers for particular products and specifically endorsed by the manufacturer to the Owner.
- B. Special Guarantees/Warranties: Written guarantees/warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard guarantees/warranties or to provide greater rights for the Owner.

1.4 GENERAL REQUIREMENTS

- A. Guarantees/warranties between Contractor and manufacturers and between Contractor and suppliers shall not affect those issued to the Owner.
- B. Contractor shall not be held responsible for defects due to misuse, negligence, willful damage, improper maintenance, or accident caused by others nor shall it be responsible for damaged parts whose replacement is necessitated by failure of Owner's maintenance forces to properly clean and service them, provided that Contractor has furnished complete operating and maintenance instructions to Owner.
- C. By terms of each guarantee/warranty, unless otherwise specified or stipulated, also agree to remove and replace other work, as required, that has been connected to or superimposed on substrate material to be replaced.
- D. In addition to other requirements specified:
 - 1. Compile specified service and maintenance contracts.
 - 2. Coexecute submittals when specified.
 - 3. Review submittals to verify compliance with Contract Documents.
 - 4. Submit to Architect for review and transmittal to Owner.

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- E. In case of items remaining incomplete after date of filing of the Notice of Completion, the guarantee/warranty period shall run from the date of acceptance of such items.
- F. Special guarantees/warranties applicable to definite parts of the Work and as specifically stipulated in the respective Sections of the Specifications or other Contract Documents shall be subject to the terms of this Section.
- G. If repairs or changes are required in connection with the work within a guarantee/warranty period, the Contractor shall, promptly upon receipt of notice from the Owner and without expense to the Owner, comply with the following:
 - 1. Correct defects and place in satisfactory condition the work covered by the respective guarantee/warranty.
 - 2. Repair, to the satisfaction of the Owner, damage to the Buildings and/or site that is the result of the cause for said repairs and changes.
 - 3. Repairs and corrective work shall be made to the satisfaction of the Owner including the equipment and contents of the Buildings and/or site disturbed during performance of the guarantee/warranty work.
- H. The Owner may, at its sole discretion, proceed with the correction work at Contractor's expense if Contractor does not proceed with the corrective work within a reasonable time fixed by written notice from the Owner.
 - 1. As part of the corrective work, the Owner reserves the right to remove and store or dispose of defective equipment or material at Contractor's expense.
 - 2. If Contractor does not pay the costs of such removal and storage within ten days thereafter, the Owner may, upon ten additional days' written notice, sell such defective items and shall account for the net proceeds after deducting all the costs that should have been borne by the Contractor, including compensation for the Architect's additional services.
 - 3. If the proceeds from the sale are insufficient to cover all amounts chargeable to Contractor, Contractor shall pay the difference to the Owner.
- I. If repairs or changes are required in connection with guarantee/warranty work and notice is given within the guarantee/warranty period, the warranty shall continue until the corrective work has been completed, regardless of the termination of the specified guarantee/warranty period.
- J. In case of work performed by subcontractors and where a special guarantee/warranty is required, guarantees/warranties addressed to and in favor of the Owner shall be secured from said subcontractors.
- K. No provision in the Contract Documents or in any special or general guarantee/warranty shall be held to limit, as to time or scope of liability, the Contractor's liability for defects or the liability of its sureties to less than the legal limit of liability under laws having jurisdiction.
- L. The delivery of any guarantees/warranties shall not relieve the Contractor from any obligation assumed under any other provision of the Contract Documents.

- M. The obligation of the Contractor under this Section shall survive the termination of the Contract.

1.5 SUBMITTAL REQUIREMENTS

- A. Assemble guarantees/warranties, bonds, and service and maintenance contracts executed by each of the respective manufacturers, suppliers, and subcontractors.
- B. Format:
 - 1. Size: 8-1/2-inch-by 11-inch sheets, punched for three-ring binder. Fold larger sheets to fit into binders.
 - 2. Binders: Commercial quality, three-ring, "View" type, with durable and cleanable plastic covers.
 - 3. Cover: Identify each packet with typed or printed title, "GUARANTEES/WARRANTIES," and list the title of Project and name of Contractor.
- C. Contents:
 - 1. Neatly typed, in orderly sequence.
 - 2. Provide complete information for each item including:
 - a. Product or work item.
 - b. Firm name with name of principal, address, and telephone number.
 - c. Beginning date and duration of warranty, bond, or service and maintenance contract.
 - 3. Provide the following information for Owner's personnel:
 - a. Proper procedure in case of failure.
 - b. Circumstances that might affect the validity of guarantee/warranty or bond.
 - 4. Contractor's name, name of responsible principal, address, and telephone number.
- D. Refer to Section 01 3300, Submittal Procedures, for additional requirements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 TIME OF SUBMITTALS

- A. Typical: Within 30 days after filing date of Notice of Completion.
- B. Equipment or component parts of equipment put into service during progress of construction; submit documents within 10 days after inspection and acceptance.

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- C. Items of work, where acceptance is delayed materially beyond date of Substantial Completion; provide updated submittal within 14 days after acceptance, listing date of acceptance as start of guarantee/warranty period.

3.2 GUARANTEE PERIOD INSPECTIONS

- A. Contractor and all subcontractors performing the construction work are required to guarantee workmanship and materials for the period noted in the Contract. Within a month of the end of such guarantee period, Contractor's agent shall prepare an inspection report indicating the condition of the Owner's facility and related common facility, itemizing the work to be completed, performed and/or corrected. Such guarantee period shall be continued in effect and extended until such time as Owner submits to Contractor written confirmation of the satisfactory completion of the itemized work, which confirmation shall be submitted within a reasonable period of time.

3.3 GUARANTEE/WARRANTY FORMS

- A. Special Guarantee/Warranty: Unless otherwise mutually agreed, submit the following written Special Guarantee/Warranty, typed on subcontractor's letterhead, when required by a Specification Section for a period in excess of 2 years:

(Remainder of this Page is Blank)

(Letterhead of Subcontractor)

SPECIAL EXTENDED WRITTEN GUARANTEE / WARRANTY

We hereby warrant that

which we have provided in _____

_____ Name of Project

for _____

_____ District

has been completed in accordance with Specification Section _____ and requirements of the Contract Documents.

We agree to repair or replace any or all of our work, together with any other adjacent work which may be displaced or damaged by so doing, which may prove to be either patently defective in its workmanship or materials within the period of time prescribed by law or latently defective in its workmanship or materials within a period of _____ year(s) from date of filing the Notice of Completion of the above-named Project by the Board of Trustees of the School District without any expense whatsoever to said Board of Trustees, ordinary wear and tear and unusual abuse or neglect excepted.

We also agree to repair any and all damages resulting from such defects.

In the event of our failure to comply with above-mentioned conditions within a reasonable time but in no case longer than 10 calendar days after being notified in writing by the Owner, we collectively and separately do hereby authorize the Owner to have said defective work and damages repaired or replaced and made good at our expense and will honor and pay the costs and charges therefore upon demand.

SIGNED (Subcontractor)

(Name)

(Address)

(License Number)

(Date of Signing)

COUNTERSIGNED (General Contractor)

(Name)

(Address)

(License Number)

(Date of Signing)

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- B. Submit the following written Standard Guarantee/Warranty form for the overall Work against defects in materials and workmanship for the period of guarantee/warranty required under the Contract after the filing of the Notice of Completion.

(Remainder of this Page is Blank)

(Letterhead of Contractor)

STANDARD GUARANTEE / WARRANTY

for

Project Name

Contract No.

We hereby guarantee/warrant that the Work we have provided under the above reference Contract has been completed in accordance with the Drawings, Specifications, and other Contract Documents.

We agree to repair or replace any or all of our work, together with any other adjacent work which may be displaced or damaged by so doing, which may prove to be either patently defective in its workmanship or materials within the period of **[24]** months from the date of filing of the Notice of Completion of the above named Project, and we also agree to repair any and all damages resulting from such defects, all without any expense to the Owner, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of our failure to comply with above-mentioned conditions within ten (10) day after being notified in writing by the Owner, we collectively and separately do hereby authorize the Owner to have said defective work and damages repaired or replaced and made good at our expense and will honor and pay the costs and charges therefore upon demand.

SIGNED (Contractor) _____

(Address)

(Printed Name of Authorized Representative)

Signature

(License Number)

(Date of Signing)

COUNTERSIGNED (Owner) _____

(Printed Name of Authorized Representative)

Signature

Date of Filing or Notice of Completion: _____

END OF SECTION

(Letterhead of Company)

SPECIAL EXTENDED WRITTEN GUARANTEE / WARRANTY

We hereby warrant that

which we have provided in _____

Name of Project

for _____

District

has been completed in accordance with Specification Section _____ and requirements of the Contract Documents.

We agree to repair or replace any or all of our work, together with any other adjacent work which may be displaced or damaged by so doing, which may prove to be either patently defective in its workmanship or materials within the period of time prescribed by law or latently defective in its workmanship or materials within a period of _____ year(s) from date of filing the Notice of Completion of the above-named Project by the Board of Trustees of the School District without any expense whatsoever to said Board of Trustees, ordinary wear and tear and unusual abuse or neglect excepted.

We also agree to repair any and all damages resulting from such defects.

In the event of our failure to comply with above-mentioned conditions within a reasonable time but in no case longer than 10 calendar days after being notified in writing by the Owner, we collectively and separately do hereby authorize the Owner to have said defective work and damages repaired or replaced and made good at our expense and will honor and pay the costs and charges therefore upon demand.

SIGNED (Subcontractor)

(Name)

(Address)

(License Number)

(Date of Signing)

COUNTERSIGNED (General Contractor)

(Name)

(Address)

(License Number)

(Date of Signing)

(Letterhead of Contractor)

STANDARD GUARANTEE / WARRANTY

for

Project Name

Contract No.

We hereby guarantee/warrant that the Work we have provided under the above reference Contract has been completed in accordance with the Drawings, Specifications, and other Contract Documents.

We agree to repair or replace any or all of our work, together with any other adjacent work which may be displaced or damaged by so doing, which may prove to be either patently defective in its workmanship or materials within the period of **[24]** months from the date of filing of the Notice of Completion of the above named Project, and we also agree to repair any and all damages resulting from such defects, all without any expense to the Owner, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of our failure to comply with above-mentioned conditions within ten (10) day after being notified in writing by the Owner, we collectively and separately do hereby authorize the Owner to have said defective work and damages repaired or replaced and made good at our expense and will honor and pay the costs and charges therefore upon demand.

SIGNED (Contractor) _____

(Address)

(Printed Name of Authorized Representative)

Signature

(License Number)

(Date of Signing)

COUNTERSIGNED (Owner) _____

(Printed Name of Authorized Representative)

Signature

Date of Filing or Notice of Completion: _____

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general requirements and procedures for compliance with California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green".
 - 1. Chapter 5- Non-Residential Mandatory Measures.

1.2 RELATED REQUIREMENTS

- A. Pertinent sections specifying erosion control.
- B. Section 01 3543, Environmental Procedures.
- C. Section 01 6116, Volatile Organic Compound (VOC) Restrictions.
- D. Section 01 7419, Construction Waste Management and Disposal.
- E. Section 01 7700, Closeout Procedures.
- F. Pertinent sections specifying landscape irrigation.

1.3 DEFINITIONS

- A. CAL-Green Definitions: Certain terms are defined by CAL-Green in Chapter 5 of the code. Words and terms used in this section shall have the meanings shown therein.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Respond to questions and requests from Architect and the jurisdiction having authority regarding CAL-Green credits that are the responsibility of the Contractor, that depend on product selection or product qualities, or that depend on Contractor's procedures. Document responses as informational submittals.

1.5 ACTION SUBMITTALS

- A. CAL-GREEN Submittals: Submit CAL-GREEN submittals required by code and in other Specification Sections.
 - 1. CAL-GREEN submittals are in addition to other submittals. If submitted item is identical to that submitted to comply with other requirements, submit duplicate copies as a separate submittal to verify compliance with indicated CAL-GREEN requirements.
 - 2. Acceptable verification submittals are specified in the related sections.

SUSTAINABLE DESIGN REQUIREMENTS

SECTION 01 8113.10

18-1366

Addendum 01

PART 2 - PRODUCTS

2.1 REQUIREMENTS - GENERAL

- A. Provide products and procedures necessary to confirm CAL-GREEN compliance required in this Section. Although other Sections may specify some CAL-GREEN requirements, the Contractor shall determine additional materials, techniques, means, methods and procedures necessary to comply with CAL-GREEN requirements.

2.2 STORM WATER POLLUTION PREVENTION PLAN

- A. Section 5.106.1: Comply with requirements of this code section, local ordinances, General Conditions, Special Provisions, and related sections specifying erosion control.

2.3 OUTDOOR WATER USE

- A. Section 5.304.3.1: Irrigation Controllers: Comply with requirements of this code section, local ordinances and Section 32 8000.

2.4 CONSTRUCTION WASTE REDUCTION

- A. Section 5.408 Construction Waste Management, Diversion and Recycling: Comply with requirements of this code section, local ordinances and Section 01 7419.

2.5 POLLUTANT CONTROL

- A. Section 5.504.3 Indoor Air Quality: Comply with requirements of this code section, local ordinances and Section 01 3543.
 - 1. During storage, rough installation and until final start-up of HVAC equipment, securely cover all ducts and air distribution component openings with plastic, tape, sheet metal or other methods acceptable to enforcing agency to reduce dust or debris collected in the system.
- B. Section 5.504.4 Finish Material Pollutant Control: All Finish materials shall comply with requirements of this code section, local ordinances and Section 01 6116.

PART 3 - EXECUTION

3.1 GENERAL

- A. Comply with Section 01 7419, Construction Waste Management and Disposal.
- B. Comply with execution requirements of related sections and applicable local codes and ordinances.

END OF SECTION

SUSTAINABLE DESIGN REQUIREMENTS
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Last Updated: April 8, 2019

SUBGRADE PREPARATION

BUILDING ADJACENT

FOLLOWING SITE EXCAVATION ACTIVITIES, THE EXPOSED SURFACE SHALL BE PROTECTED FROM WEATHER AND CONTAMINATION. THE EXPOSED SURFACE SHALL BE COVERED WITH A MINIMUM OF 18 INCHES OF TOP SOIL OR EQUIVALENT. THE SUB-GRADATION SHALL EXTEND AT LEAST 5 FEET BEYOND THE EXCAVATION PERIMETER. THE SUB-GRADATION SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.

FOLLOWING OVER-EXCAVATION, THE EXPOSED SOILS SHALL BE PROTECTED FROM WEATHER AND CONTAMINATION. THE EXPOSED SOILS SHALL BE COVERED WITH A MINIMUM OF 18 INCHES OF TOP SOIL OR EQUIVALENT. THE SUB-GRADATION SHALL EXTEND AT LEAST 5 FEET BEYOND THE EXCAVATION PERIMETER. THE SUB-GRADATION SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.

FOR AREAS TO BE FILLED TO ACHIEVE SUBGRADE, SCARIFY EXPOSED SOILS TO A MINIMUM OF 6 INCHES. THE SCARIFIED SOILS SHALL BE MOISTENED TO AT LEAST THE OPTIMUM MOISTURE CONTENT AND UNIFORMITY COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557. IF THE EXISTING SUBGRADE IS FOUND TO BE WEAK OR UNSTABLE, IT SHALL BE REMOVED TO A MINIMUM OF 18 INCHES BELOW THE EXISTING FINISH GRADE. THE EXPOSED SOILS SHALL BE COVERED WITH A MINIMUM OF 18 INCHES OF TOP SOIL OR EQUIVALENT. THE SUB-GRADATION SHALL EXTEND AT LEAST 5 FEET BEYOND THE EXCAVATION PERIMETER. THE SUB-GRADATION SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.

ASPHALT AND FLATWORK SUBGRADE PREP

ASPHALT

FOLLOWING SITE CLEANING, STRIPPING AND DEMOLITION ACTIVITIES, THE EXPOSED SURFACE SHALL BE PROTECTED FROM WEATHER AND CONTAMINATION. THE EXPOSED SURFACE SHALL BE COVERED WITH A MINIMUM OF 18 INCHES OF TOP SOIL OR EQUIVALENT. THE SUB-GRADATION SHALL EXTEND AT LEAST 5 FEET BEYOND THE EXCAVATION PERIMETER. THE SUB-GRADATION SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.

FOR AREAS TO BE FILLED TO ACHIEVE SUBGRADE, SCARIFY EXPOSED SOILS TO A MINIMUM OF 6 INCHES. THE SCARIFIED SOILS SHALL BE MOISTENED TO AT LEAST THE OPTIMUM MOISTURE CONTENT AND UNIFORMITY COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557. IF THE EXISTING SUBGRADE IS FOUND TO BE WEAK OR UNSTABLE, IT SHALL BE REMOVED TO A MINIMUM OF 18 INCHES BELOW THE EXISTING FINISH GRADE. THE EXPOSED SOILS SHALL BE COVERED WITH A MINIMUM OF 18 INCHES OF TOP SOIL OR EQUIVALENT. THE SUB-GRADATION SHALL EXTEND AT LEAST 5 FEET BEYOND THE EXCAVATION PERIMETER. THE SUB-GRADATION SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.

GENERAL NOTES

1. IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT SHOWN ON THESE PLANS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT FOR INSTRUCTIONS.
2. NO BURNING SHALL BE PERMITTED.
3. THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND TYPE OF ALL UTILITIES PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETION OF ALL UTILITIES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR THE COMPLETION OF ANY UTILITIES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR THE COMPLETION OF ANY UTILITIES NOT SHOWN ON THESE PLANS.

