

DIVISION 1 - GENERAL REQUIREMENTS
SECTION 01100
SUMMARY OF WORK

PART 1 – GENERAL

1.01 CONDITIONS AND REQUIREMENTS

- A. Division 1 - General Requirements shall govern work under all Divisions of the Specifications

1.02 SCHEDULE OF DRAWINGS, SPECIFICATIONS AND ADDENDA

- A. Drawing Index:
- B. Project Manual:
- C. Addenda: All Addenda issued prior to bidding.

1.03 EXAMINATION OF SITE

- A. Site Visit: Failure to visit site will in no way relieve any Contractor from necessity of furnishing materials or performing work that may be required to complete work in accordance with Drawings and Specifications without additional cost to Owner.

1.04 SEPARATE CONTRACTS

- A. All work under this contract, will be executed under one prime contract between the Owner and the General Contractor.

1.05 PROTECTION OF PROPERTY

- A. The Contractor shall limit his operations and site access to areas of the site affected by the construction and staging areas arranged with the school administration at each facility. Other areas shall be left undisturbed. Any damage to such areas may require repair at the Contractor's expense.
- B. Damage to existing landscaping, fencing, sod, or other existing building or site features will be repaired at the Contractor's expense.

1.06 COORDINATION

- A. Coordinate the installation of remediation materials to allow for required cure times and to accommodate the school class schedules as described on Sheets 1GN and 2GN of the Drawings.
- B. All work installed that interferes with the work of others and was not coordinated with existing conditions and the work of others shall be removed and reinstalled at no extra cost to the Owner.

1.07 TIME OF COMPLETION

- A. The work associated with this project shall be substantially complete no later than the dates listed on _____. The Contractor agrees to substantially complete the work on or before that date. If the Contractor fails to meet that date, the Contractor agrees to pay the Owner as liquidated damages the sum of Five Hundred and No/100 Dollars (\$500.00) for each consecutive calendar day thereafter that the work is not substantially complete.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01230 ALTERNATES

PART 1 – GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

- A. Definitions and Explanations: "Alternates" are defined as alternate products, materials, equipment, systems, and methods, units of work or major elements of the construction, which may, at the Owner's option, be selected for the work in lieu of the corresponding requirements of the base bid Contract Documents. Selection may occur prior to the Contract Date, or may be deferred for possible selection at a subsequent date. Alternates may or may not change the scope and general character of the work substantially. Refer to Owner-Contractor Agreements, and subsequent modifications thereof (if any), for the determination of which of the alternates listed have been accepted, and are, therefore, in full force and effect as though originally included in the Contract Documents for the base bid.
- B. Notification: Immediately following the award of the Contract, the Contractor shall prepare and distribute to each entity or person to be involved in the performance of the Work, a notification of the status of each alternate, including those subsequently added by notification during bidding. Indicate which alternates have been: 1) accepted, 2) rejected, and 3) deferred for consideration at a later date as indicated. Include full description of negotiated modifications to alternates, if any.
- C. General Alternate Requirements: The description for each alternate is recognized to be incomplete and abbreviated, but implies that each change must be complete for the scope of work affected. Refer to applicable sections of the Specification and to applicable portions of the Drawings for the specific requirements of the work, whether or not references are so noted in the description of each alternate. Modify surrounding work as required to integrate with the work of each alternate.

1.02 ALTERNATES

- A. No alternates are scheduled at this time. However, alternates may be added during the bidding process.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01270
UNIT PRICES

PART 1 – PAYMENT

1.01 DESCRIPTION OF REQUIREMENTS

- A. The Contractor shall receive and accept compensation on the basis of the Contract unit price provisions set forth in the General Conditions (Section 00700).
- B. The unit price may be used to add or deduct quantities of units as represented by the unit price.
- C. Payment procedures shall be as defined in the General Conditions (Section 00700).
- D. Compensation to the Contractor as provided for in the Contract and as described above shall be full payment for completion of the Work as specified, indicated, or directed, and in full accordance with all provisions, stipulations, requirements, and conditions of the Contract; for completing all incidentals thereto; for furnishing all materials, equipment, tools, labor, and incidentals required to complete the Work; for cleaning up the site; and for all risk, loss, damage, or expense of whatever character arising out of the nature or performance of the Work.

1.02 EVIDENCE OF WORK

- A. The Contractor must provide actual measurements of unit price work and photos of completed work to the Engineer as evidence of completion and quantity of unit price work. This information is to be submitted to the Engineer using the Submittal process described in Section 01330. Only approved Submittals will be considered for payment.
- B. Not Used

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01311 PROJECT MEETINGS

PART 1 – GENERAL

1.01 PRECONSTRUCTION MEETINGS

- A. Preconstruction and Contract Accomplishment Conference: A meeting will be scheduled by the Owner within ten (10) days following Notice of Award, at which time the Contractor will submit executed bonds and insurance certificates. Administrative requirements such as subcontractor lists, payment applications, change order procedures, sales tax records, and project closeout will be reviewed in detail.
- B. Site Mobilization Conference: A meeting will be scheduled by the Engineer at the site prior to Contractor move-in. Representatives of the Contractor, Engineer, and Owner will be present. Job site procedures, to include the following items, will be discussed: 1.) Procedures for maintaining record documents; 2.) Owner's requirements; 3.) Construction facilities and controls; 4.) Temporary utilities; 5.) Security and housekeeping procedures; 6.) Materials testing; 7.) Building layout; 8.) Use of Engineer's Consultants

1.02 PROGRESS MEETINGS

- A. Regular meetings shall be scheduled at Contractor's job site field office. The Contractor's Project Manager and Superintendent, Owner's Representative, and Engineer will be present. Minutes of progress meetings shall be kept and distributed by the Contractor. Minutes shall record only actual statements made and items discussed during the meetings. The following items will be discussed: 1.) Review of Work Progress since Previous Meeting; 2.) Field Observations, Problems, Conflicts; 3.) Status of Previous Instructions Issued; 4.) Problems Which Impede Construction Schedule; 5.) Review of Material Delivery Schedules; 6.) Review Status of Contractor's Construction Schedule; 7.) Discuss Procedures to Regain Projected Schedule; 8.) Itemize Work for Succeeding Work Period Up to Next Progress Meeting; 9.) Coordination of Schedules; 10.) Maintenance of Quality Standards; 11.) Review Contractor's Submittals; 12.) Review Proposed Changes for Effect on Other Trades, Construction Schedule, Completion Date, and Costs; 13.) Work In Progress during Visit; 14.) Other Business as Required.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01322
CONSTRUCTION SCHEDULE

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedures for preparation, submission, review of Contractor's Construction Schedule (network analysis schedules), and periodic updating.
- B. The requirements of this Section are in addition to and not in lieu of any other requirements of the General and Supplementary Conditions of the Contract.

1.02 RELATED REQUIREMENTS

- A. Project Schedule as described in General Notes on the Drawings
- B. Summary of the Work: Section 01100
- C. Project Meetings: Section 01311
- D. Submittals: Section 01330
- E. Shop Drawings, Product Data, and Samples: Section 01331

1.03 REFERENCES

- A. "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry", The Associated General Contractors of America (AGC), Washington, D.C., current edition. "

1.04 GENERAL

- A. The Construction Schedule will be an integral part of the Contract, and will establish interim Contract completion dates for the various activities. Unless otherwise specifically stated elsewhere in the Contract Documents, "day" shall mean calendar day.

1.05 QUALITY ASSURANCE

- A. The Construction Schedule and all updates shall be prepared and maintained by personnel thoroughly trained and experienced in compiling construction schedule data, in analyzing by use of Critical

Path Method (CPM), and in preparation and issue of periodic updates and reports as required herein.

1.06 FORMAT

- A. Listings: Read from left to right, in ascending order for each activity. Identify each activity with the applicable specification Section number.
- B. Scale and Spacing: To allow for notations and revisions.

1.07 CONSTRUCTION SCHEDULES

- A. Prepare network analysis diagrams and supporting mathematical analyses using the Critical Path Method, under concepts and methods outlined in AGC's "The use of CPM in Construction - A Manual for General Contractors and the Construction Industry".
- B. Diagrams: Illustrate order and interdependence of activities and sequence of work; how start of a given activity depends on completion of preceding activities, and how completion of the activity may restrain start of following activities.
- C. Illustrate complete sequence of construction by activity, identifying work of separate stages, floors and other logical divisions of the Project as appropriate. Provide dates for submittals, including those for Owner-furnished items (if any) and return of submittals; dates for procurement and delivery of critical products; and dates for installation and for testing. Provide legend for symbols and abbreviations used.
- D. Mathematical Analysis: Tabulate each activity of detailed network diagrams, using calendar dates, and giving for each activity:
 - 1. Preceding and following event numbers.
 - 2. Activity description.
 - 3. Estimated duration of activity, in maximum 15 day intervals.
 - 4. Earliest start date.
 - 5. Earliest finish date.
 - 6. Actual start date.
 - 7. Actual finish date.
 - 8. Latest start date.
 - 9. Latest finish date.
 - 10. Total and free float.
 - 11. Percentage of activity completed.
 - 12. Contractors earnings based on portion of activity completed.

13. Responsibility.

- E. Analysis Program: Capable of accepting revised completion dates and recompilation of all dates and floats.
- F. Required Sorts: List activities in sorts or groups as follows:
 - 1. By preceding work item or event number from lowest to highest.
 - 2. By amount of float, then in order of early start.
 - 3. By responsibility in order of earliest possible start date.
 - 4. In order of latest allowable start dates.
 - 5. In order of latest allowable finish dates.
 - 6. Contractor's periodic payment request sorted by Schedule of Values listings.
 - 7. Listing of basic input data which generates the report.
 - 8. Listing of activities on the critical path.

1.08 SUBMITTALS

- A. Within 10 days after date of Owner-Contractor Agreement, submit proposed preliminary network diagram defining planned operations for the Work.
- B. Present proposed preliminary network diagram to Engineer and Owner at the first Project regularly scheduled Project meeting required by Section 01311.
- C. Within 14 days after presentation to Engineer and Owner of proposed preliminary network diagram, submit draft of proposed complete network diagram for review and present same at next regularly scheduled Project meeting. Include written certification that major subcontractors and material suppliers (identified by name and trade) have reviewed and accepted proposed schedule.
- D. Submit updated network schedules with each monthly Application for Payment.

1.09 REVIEW AND EVALUATION

- A. Conduct a joint review and evaluation of network diagrams and analysis with Engineer and Owner at each monthly submittal.
- B. Evaluate project status to determine work behind schedule and work ahead of schedule.

- C. After review, revise as necessary as result of review, and resubmit within 10 days.

1.10 UPDATING SCHEDULES

- A. Maintain schedules to record actual start and finish dates of completed activities. Indicate progress of each activity to date of revision, with projected completion date of each activity. Update diagrams to graphically depict current status of Work.
- B. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- C. Indicate changes required to maintain Date of Substantial Completion for the entire Project as well as any specified portions of the Project. Submit sorts required to support recommended changes.
- D. Provide narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect, including the effect of changes on schedules of separate contractors.

1.11 DISTRIBUTION

- A. Following joint review, distribute copies of updated schedules to Contractor's job site file, Owner, suppliers, subcontractors, Engineer, and other concerned entities. Instruct suppliers and subcontractors to promptly report, in writing, problems anticipated by projections shown on schedule.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01330 SUBMITTALS

PART 1 – GENERAL

1.01 INFORMATION INCLUDED

- A. Submittal defined
- B. Submittal Categories established
- C. Requirements, procedures, and conditions
- D. Submittal coordination requirements

1.02 RELATED REQUIREMENTS

- A. Requirements pertaining to various submittals as described in the General Conditions.
- B. Requirements for submittals described in other individual Specification Sections.

1.03 SUBMITTALS DEFINED AND CLASSIFIED

- A. A submittal is anything required in the Contract Documents to be submitted by the Contractor to the Engineer.
- B. Category I submittals require approval by the Engineer and include:
 - 1. Shop Drawings
 - 2. Product Data
 - 3. Samples
 - 4. Applications for Payment
 - 5. Substitution requests
 - 6. Any item specifically classified in individual Sections as a Category I submittal.
- C. Category II submittals are required for the Engineer's and/or Owner's information and as evidence of the Contractor's compliance with provisions of the Contract Documents. They are not required to be approved by the Engineer. Consequently, Category II submittals will not be approved by the Engineer and will normally not be returned to the Contractor. The Engineer reserves the right to require the Contractor to resubmit any Category II submittal if the Engineer becomes aware, at any time, of anything

concerning the submittal which does not comply with the requirements of the Contract Documents. Any such discovery or lack thereof shall not relieve the Contractor from the obligation of having fully complied with, or the obligation to yet fully comply with, the conditions and provisions of the Contract Documents and the Owner shall not be prevented from requiring removal and replacement of nonconforming work.

Category II submittals include:

1. Construction Schedule(s) and updates
2. Performance and Labor and Material Payment Bonds
3. Quality control plan
4. Certificates & certifications
5. Manufacturer's instructions
6. Contractor's list of corrections
7. Warranties; sample and final copies
8. Affidavits of Payment of Debts and Claims
9. Lien waivers
10. Consent of Surety to Final Payment
11. All project closeout documents specified in Section 01770
12. Any item specifically classified in individual Sections as a Category II submittal

- D. For any required submittal not listed in this section, the Engineer shall, upon discovery or request from the Contractor, determine the proper category of such submittal.

1.04 REQUIREMENTS, PROCEDURES, AND CONDITIONS

- A. The requirements of this Section are in addition to and not in lieu of any other requirements of the General Conditions of the Contract.
- B. Make all submittals required by the Contract Documents and revise and resubmit as necessary to fully comply with specified requirements.
- C. Where a conflict occurs between or within specified standards and the Contract Documents, or should the Contractor have any question regarding the intent of the Contract Documents or any requirement thereof, the Contractor shall prior to submission of any affected submittal, ensure his full understanding of such intent requirement by making written Request for Interpretation / Information using the form provided in the Project Manual for such purpose.

- D. Contractor shall review all submittals to ensure conformance with requirements of the Contract Documents. Prior to each submittal, Contractor shall carefully review and coordinate all aspects of each item being submitted and verify that each item and the submittal for it conforms in all respects with the requirements of the Contract Documents. By affixing Contractor's signature to each submittal, he certifies that this review and coordination has been performed. Contractor's signature shall constitute prima facie evidence of Contractor's compliance with this provision.
- E. Deliver submittals to Engineer at the address listed on front cover of Project Manual.
- F. Transmit each item under Contractor's specific transmittal form or AIA Form G810. Show date and identify Project, Engineer, Contractor, subcontractor, manufacturer, supplier, and separate shop drawing producer if pertinent. List numbers of drawings and Specification Section number as appropriate. Identify and explain deviations from Contract Documents.
- G. On at least the first page of each submittal, and elsewhere as required for positive identification, clearly indicate the Specification Section number in-which the item was included. Separate submittals are required for each Specification Section involved. Identify various components specified within a particular Section with the appropriate Article and Paragraph numbers and/or Drawing and Detail references. If the material data sheet or other submittal information includes multiple products, clearly indicate the product or products being submitted.
- H. When an item is being resubmitted for any reason, transmit said item under new letter of transmittal and with a revised submittal number. Resubmittals shall have the same number as the original submittal with alphanumeric suffix consecutively numbered.
- I. Maintain an accurate submittal log for the duration of the Contract, showing current status of all submittals. Make the submittal log available to the Engineer upon request.
- J. Unless otherwise specified, make all submittals in groups containing all associated items. Where possible, provide all submittals required by an individual Section at the same time. Partial or incomplete submittals will be returned without further review and the Contractor shall be strictly liable for all resulting delays.

- K. Make all submittals far enough in advance of scheduled dates for installation to provide all time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery.
- L. Allow at least 15 calendar days (after receipt of submittal in Engineer's office) for each review by Engineer.
- M. Delays caused by tardiness in receipt of submittals will not be an acceptable basis for extension of the Contract completion date.
- N. The Contract Documents impose upon the Contractor, subcontractors, manufacturers, suppliers, and distributors (collectively "contractor"), various contractual responsibilities. Any note or comment on any submittal that (1) diminishes, disclaims, contravenes, or otherwise is inconsistent with responsibility imposed by the Contract Documents on contractor, or (2) imposes any responsibility whatsoever on the Engineer and/or its consultants, or expands any responsibility the Engineer may have under its agreement with the Owner, shall have no force or effect and shall otherwise be deemed null and void whether or not such note or comment be stricken by the Engineer during the submittal review process.
- O. Notwithstanding any purported ownership and/or copyright by Contractor, any subcontractor, supplier, manufacturer, or other submittal producer, copies of all submittals will be retained by the Engineer, Contractor, and Owner as part of the Project Record Documents.

1.05 SUBMITTAL COORDINATION

- A. Coordination: Coordinate the schedule of submittals with all necessary subcontractors and material suppliers to ensure their understanding of the importance of adhering to the Project schedule and their ability to do so.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01331
SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Shop drawing definition and requirements
- B. Product data definition and requirements
- C. Sample definition and requirements
- D. Mockup requirements

1.02 RELATED REQUIREMENTS

- A. Requirements pertaining to Shop drawings, Product Data, and Samples as described in the General Conditions
- B. Submittals: Section 01330
- C. Requirements for Shop drawings, Product Data, Samples, and Mockup Panels described in other individual Specification Sections

1.03 REQUIREMENTS, PROCEDURES, AND CONDITIONS

- A. Requirements of this Section are in addition to and not in lieu of any other requirements of the General and Supplementary Conditions of the Contract.
- B. Contractor shall review all shop drawings, product data, and samples (collectively referred to in this Section as "submittal" or "submittals") to ensure specific conformance with the requirements of the Contract Documents. Prior to submitting any such submittal, Contractor shall carefully review and coordinate all aspects of each item being submitted and verify that each item and the submittal for it conforms in all respects with the requirements of the Contract Documents. By affixing the Contractor's signature to each submittal he certifies that this review and coordination has been performed and that the submittal is therefore approved by Contractor. Submittals that have not been approved and certified by the Contractor will be rejected and returned to the Contractor without further action by the Engineer.

- C. Submit only the submittals required by the Contract Documents. Shop drawings, product data, and samples not required by the Contract Documents will not be processed by the Engineer and will be returned to the Contractor without action.
- D. Provide all submittals required by an individual Specification Section at the same time. Partial or incomplete submittals will be returned to Contractor without action.
- E. Submittals not meeting the requirements of this Section or that of any other Section shall be rejected.
- F. Make all submittals required by the Contract Documents, and revise and resubmit as necessary to fully comply with specified requirements.
- G. Engineer's Review: After review, submittals made under provisions of this Section shall be returned to the Contractor marked with one or more of the actions noted below, as appropriate:
 - 1. No Exceptions Taken": Contractor may proceed with fabrication, purchase, or both of items so marked.
 - 2. Make Corrections Noted": Contractor may, subject to the corrections noted, proceed with fabrication, purchase or both of items so marked.
 - 3. Revise and Resubmit": Contractor may not proceed with fabrication or purchase. Submittal must be revised and resubmitted.
 - 4. Rejected": Contractor may not proceed with fabrication or purchase of items so marked.
- H. When an action of "Revise and Resubmit" is used, it applies to an entire submittal package made under provisions of a particular Section. Submittals so marked must be resubmitted meeting all requirements as if submitted for the first time, including new copies of all required submittals (both Category I and II) specified under that Section.
- I. Submittal items returned with an action of "Rejected" must be resubmitted providing revised copies of submittal information for only those items that were so marked.

1.04 SHOP DRAWINGS

- A. Shop Drawings are drawings, diagrams, and schedules prepared by the Contractor, a subcontractor, supplier, or manufacturer to

illustrate some portion of the Work. Individual Specification Sections may limit which of these entities shall produce shop drawings required under that Section. Shop drawings show fabrication details, layout or placement of materials, products, and equipment as may be required to demonstrate that such materials, products, and equipment, and the location/position thereof, conform to the requirements of the Contract Documents. Shop drawings establish the actual detail of all manufactured or fabricated items; indicate proper relation to and coordination with adjoining work; amplify design details in relation to physical spaces and conditions of installation, and identify and incorporate minor adjustments of design or construction to suit actual conditions and/or constraints, if any are necessary for the proper use and installation of said materials, products, or equipment.

- B. Shop drawings shall not be reproductions of Contract Documents but shall be original drawings. Do not copy or submit manufacturer's standard information sheets as the basis for shop drawings. Submit drawings, drawn to accurate scale, specifically prepared for this Project. Highlight, encircle, or otherwise distinctively indicate deviations from the Contract Documents. Standard information prepared without specific reference to the Project is unacceptable as shop drawings.
- C. Unless otherwise specified in individual specification Sections, submit three (3) prints per shop drawing sheet. Drawings submitted in excess of the number specified will be discarded.
- D. Engineer's review comments will be noted on each set of said shop drawings, and two copies will be returned to the Contractor. The Contractor shall make and distribute all copies required for his purposes.
- E. Each and every sheet of shop drawings shall be checked, stamped, and dated by the Contractor.
- F. References: Shop drawings shall be referenced to applicable construction drawings and Specification Sections using the identical reference marks/numbers established by the Engineer and his consultants.

1.05 PRODUCT DATA

- A. Product Data are illustrations, schedules, performance charts, graphs, and/or facts, printed descriptions, brochures, catalog cuts, diagrams, graphic depictions, pictures, manufacturer's color or

finish charts, and other such information furnished by the Contractor to describe a manufactured material, product, assembly, or system for some portion of the Work. Where product data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings".

- B. Unless otherwise specified in individual specification sections, submit four (4) copies of brochure material.
- C. Mark each copy to show applicable choices and options. Where printed product data includes information on several products, some of which are not required, strike through all information that does not pertain to the required product(s). All products that are part of the submittal should be clearly indicated.
- D. References: Product Data shall be referenced to applicable construction Drawings and Specification Sections using the identical reference marks/numbers established by the Engineer and his consultants.
- E. Photocopies or printouts of color charts are not permitted.

1.06 SAMPLES

- A. Samples are physical examples of individual materials, products, equipment, devices, and items (collectively "materials"), or assemblies of materials furnished by the Contractor for incorporation into the Project. Samples are not imitations or simulations of anything else and are made of the actual material(s) to be incorporated into the Project. Submit samples as may be required by the Engineer to determine whether the kind, quality, construction, workmanship, finish, color, and other characteristics of the materials proposed by the Contractor conform to the required characteristics of the various parts of the Work.
- B. The Contractor shall deliver to the Engineer two (2) complete collections of all samples (of sufficient size to establish general visual effect) required by individual Sections for a color, texture, pattern, or other finish (collectively, "color") selection by the Engineer, as well as two (2) samples of any item which has been specified in individual Sections with color selection already made. A comprehensive list of all samples delivered shall be included and shall cross-reference each sample to the appropriate Section number. Upon receipt of a complete collection of such samples the Engineer will, with reasonable promptness and after receiving any required Owner approval, make the necessary selections, and

deliver to the Contractor a schedule documenting the selections made.

- C. The color selection process will not begin until all samples required by Article 1.06, Paragraph B are properly submitted. Color selection will not be made on an individual basis. Samples other than those described in Article 1.06, Paragraph B Shall be submitted as part of and concurrently with, all other submittals required under that Section.

1.06 MOCKUP PANELS

Not Used

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01410 REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 PERMITS AND FEES

- A. See General Conditions.

1.02 APPROVAL AND RECOMMENDATION AGENCIES

- A. The Colorado Department of Labor & Employment, Public School Section, has jurisdiction for approval of this project. Codes that have been adopted by the Public School Section are:
 - 1. International Building Code, 2003 Edition
 - 2. International Fire Code, 2003 Edition
 - 3. International Plumbing Code, 2003 Edition
 - 4. International Energy Conservation Code, 2003 Edition
- B. Comply with all requirements and codes adopted by the Fire Department, Utility Company, and Health Department having jurisdiction. Comply with all other requirements of the Public School Section, and any other local, state or federal requirements that are applicable. In case of a conflict between referenced applicable codes or other requirements, the one having the more stringent requirements shall govern. Where governing codes or requirements indicate that the Drawings or Specifications do not comply with the minimum requirements of the codes or requirements, the Contractor shall be responsible to immediately report the offending condition to the Engineer. He shall then, with the Engineer's approval, provide an installation that will comply with code requirements. Drawings and Specifications shall be followed where they are superior to code requirements.

1.03 OSHA AND EEO COMPLIANCE

- A. The Contractor shall have sole responsibility for compliance on the job site to all applicable portions of the Occupational Safety and Health Act and compliance with the Equal Employment Opportunity Act. Protection of life, health and public welfare as it relates to the execution of the construction contract is the responsibility of the Contractor. The Owner, Engineer and Engineer's Consultants will not provide observation, inspection, supervision, or any comment on plans, procedures or actions employed at the project as they relate to safety of life, health, or public welfare. If conditions are

imposed by the Owner which interfere with, or imply actions detrimental to safety, written notice shall be provided by the Contractor for action prior to affecting any unsafe conditions.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01420
REFERENCE STANDARDS AND ABBREVIATIONS

PART 1 - GENERAL

1.01 QUALITY ASSURANCE

- A. For products or workmanship specified by association, trade or Federal Standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The date of the standard is that in effect as of the bid date except when a specific date is specified or when the standard is part of an applicable code which includes an edition date.
- C. When required by individual sections, obtain a copy of standard. Maintain copy at job site during the work.

1.02 SPECIFICATION LANGUAGE EXPLANATION

- A. Specifications are of abbreviated, simplified or streamlined type and include incomplete sentences. Omissions of words or phrases such as "the Contractor shall", "in conformity therewith", "shall be", "as noted on the drawings", "a", and "the" are intentional. Supply omitted words or phrases by inference in same manner as they are when "NOTE" occurs on Drawings. Supply words "shall be" or "shall" by inference when colon is used within sentences or phrases. Supply words "on the Drawings" by inference when "as indicated" is used with sentences or phrases.
- B. Imperative language is directed to the Contractor.
 - 1. The term "provide" used in the text is defined to mean "furnish and install complete, in place, and ready for operation and use", unless specifically indicated otherwise.
 - 2. The term "furnish" used in the text is defined to mean "supply and deliver", unless specifically indicated otherwise.
 - 3. The term "install" used in the text is defined to mean "place and fix in position, complete and ready for operation and use". Unless specifically indicated otherwise.

1.03 ABBREVIATIONS

- A. Trade Associations: Reference in Contract Documents to trade associations, technical societies, recognized authorities and other

institutions include following organizations, which are sometimes referred to only by corresponding abbreviations:

AA - Aluminum Association
AAMA - American Architectural Manufacturer's Association
ACI - American Concrete Institute
AIMA - Acoustical and Insulating Materials Association
AISC - American Institute of Steel Construction
ANSI - American National Standards Institute
APA - American Plywood Association
ASHRAE - American Society of Heating, Refrigerating and Air Conditioning Engineers.
ASTM - American Society for Testing and Materials
AWS - American Welding Society
BIA - Brick Institute of America
CRSI - Concrete Reinforcing Steel Institute
EIMA - EIFS Industry Members Association
NAAMM - National Association of Architectural Metal Manufacturers
NCMA - National Concrete Masonry Association
NEC - National Electric Code (of NFPA)
NFPA - National Fire Protection Association
NWMA - National Woodwork Manufacturer's Association
PCA - Portland Cement Association
PCI - Pre-stressed Concrete Institute
SMACNA - Sheet Metal and Air Conditioning Contractors National Association
SSPC - Steel Structures Painting Council
UL - Underwriters' Laboratories, Inc.
WWPA - Western Wood Products Association

1.04 DRAWINGS AND SCHEDULES

- A. The following abbreviations are commonly used on drawings and schedules. Drawings and Schedules may contain other abbreviations as listed in Specific Legends. Not all of the following abbreviations may apply to this project.

AB - Anchor Bolt
ABV - Above
AD - Area Drain
CF - Cubic Foot
AFF - Above Finish Floor
ALT - Alternate
ALUM - Aluminum
CJ - Control Joint

CLG - Ceiling
CMP - Corrugated Metal Pipe
BEL - Below
BLDG - Building
CMU - Concrete Masonry Unit
BLK - Block (CMU)
CONC - Concrete
BO - Bottom of
CONST - Construction
BOT - Bottom
CONT - Continues, Continuous
BRK - Brick
CONTR - Contractor
CY - Cubic Yard
FG - Finished Final Grade
FIN - Finish(ed)
D - Deep
FLG - Flashing
DBL - Double
FLR - Floor
DEMO - Demolish, Demolition
FND - Foundation(s)
FO - Face of
DIA - Diameter
DIM - Dimension
DR - Door
FT - Foot, Feet
DS - Downspout
FTG - Footing
DTL - Detail
FV - Field Verify
DWG - Drawing, Drawings
E - East
EA - Each
EBL - Existing Block
EBR - Existing Brick
EC - Existing Concrete
EJ - Expansion Joint
EL - Elevation
ELEC - Electrical
ENG - Engineer
EQUIP - Equipment
EXG - Existing
EXH - Exhaust
EXP - Expansion
EXT - Exterior

FDN - Foundation
GA - Gauge
GB - Gypsum Board
GC - General Contract(or)
GL - Glass, Glazing
GS - Gypsum Sheathing
GT - Grout
GV - Galvanized
H - High, Height
HB - Hose Bib
HM - Hollow Metal
HORIZ - Horizontal
HR - Hour
HT - Height
HVAC - Heating Ventilation/Air Conditioning
ID - Inside Diameter
INCL - Include(d/ing)
INSUL - Insulation
INT - Interior
INV - Invert
JST - Joist
JT - Joint
L - Length, Long
LF - Linear Feet
LG - Large
LH - Left Hand
LLV - Long Leg Vertical
LT - Light
M - Meter
MAS - Masonry
MATL - Material
MAX - Maximum
MECH - Mechanical
MFR - Manufacture(er)
MIN - Minimum, Minute(s)
MISC - Miscellaneous
MJ – Masonry / Movement Joint
MTD - Mounted
MTL - Metal
N - North
NIC - Not in Contract
NO - Number
NOM - Nominal
NTS - Not to Scale
OC - On Center
OD - Outside Diameter

OH - Overhead
OPG - Opening
OPP - Opposite
PT - Paint
PRFN - Prefinished
PL - Plate
PLAS - Plaster
PREP - Preparation
PROV - Provide
PSF - Pounds per Square Foot
PSI - Pounds per Square Inch
PVC - Polyvinyl Chloride
PWD - Plywood
QT - Quarry Tile
R - Radius
RD - Roof Drain
RDL - Roof Drain Leader
REBAR - Reinforcing Bar(s)
REM - Remove
REQD - Required
REV - Revise(d/ion)
RFG - Roofing
RFH - Roof Hatch
RFL - Reflected
RH - Right Hand
RM - Room
RNF - Reinforce, Reinforcing
RO - Rough Opening
RTU - Roof Top Unit
RVR - Reversed
S - South
SCS - Suspended Ceiling
SEA - Sealer
SECT - Section
SF - Square Feet
SHT - Sheet
SIM - Similar
SLV - Short Leg Vertical
SM - Small
SLNT - Sealant
SPEC(S) - Specification(s)
SQ - Square
SS - Stainless Steel
STD - Standard
STL - Steel
STRUCT - Structure. Structural

SUSP - Suspended. Suspension
SYN - Synthetic
SYS - System
T - Treads
T&G - Tongue and Groove
THK - Thick(ness)
TO - Top of
TOW - Top of Wall
TYP - Typical
UNO - Unless Noted Otherwise
VB - Vapor Barrier
VERT - Vertical
W - West, Wide, Width
W/ - With
WD - Wood
WDW - Window
W/O - Without
WP - Water Proofing
WR - Water Repellent (Resistant)
WWF - Welded Wire Fabric

PART 2 – PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

QUALITY CONTROL PART 1 - GENERAL

1.01 TESTING

- A. Owner will contract directly with accredited testing laboratory for required testing. Contractor shall provide on-site equipment and facilities required by the testing laboratory for conducting field tests, and collecting and forwarding samples.
- B. Contractor shall not use any materials or equipment represented by samples until tests, if required, have been made and the materials or equipment are found to be acceptable. Any product deemed unfit for use shall not be incorporated into the work.
- C. Contractor shall furnish the required samples without charge and give sufficient notice of the placing of orders to permit testing. Products may be sampled either prior to shipment or after being received at the site of the work.
- D. Tests noted below shall be made by an accredited testing laboratory, paid by the Owner.
- E. Where additional or specific information concerning testing methods, procedures, sample sizes. etc., is required. Requirements are included under the applicable Sections of the specifications.

1.02 SPECIAL INSPECTIONS

- A. Special Inspections will be required per the 2003 International Building Code. These tests will be made at the Owner's Expense. The Contractor shall coordinate the work schedule with the Owner's Special Inspector.

1.03 OTHER TESTING

- A. If required, the following testing shall be performed at the expense of the Contractor:
 - 1. Material Substitution: Testing of basic material or fabricated equipment offered as a substitute for specified item may be required in order to prove its compliance with the Specifications.
 - 2. Any test that fails shall be paid for by the Contractor:
 - a. Quantity and nature of tests will be determined by the Engineer.

- b. Proof of noncompliance will make the Contractor liable for any corrective action which the Engineer feels is prudent including complete removal and replacement of defective material.
- 3. Nothing contained herein is intended to imply that the Contractor does not have the right to have tests performed on any material at any time for his own information and job control so long as the Owner does not assume responsibility for costs or for giving them consideration when appraising quality of materials.

1.04 TEST REPORTS

- A. Reports of tests conducted by testing laboratories shall be distributed by the testing laboratory as follows:

- 1 copy - Contractor
 - 1 copy - Applicable supplier or subcontractor
 - 1 copy - Owner
 - 1 copy - Engineer
 - Other copies - as directed

1.05 QUALITY CONTROL SYSTEM

- A. General: Contractor shall establish a quality control system to perform sufficient inspection and tests of all items of work, including that of all subcontractors, to ensure conformance to the Contract Documents for materials, workmanship, construction, finish, functional performance and identification. This control shall be established for all construction except where the Contract Documents provide for specific compliance tests by testing laboratories or engineers employed by the Owner. The quality control system shall specifically include all testing assigned to subcontractors by various Sections of the specifications.
- B. The quality control system shall be the means by which the Contractor is assured that the construction complies with the requirements of the Contract Documents. Control shall be adequate to cover all construction operations and should be keyed to the proposed construction schedule.
- C. Records: The Contractor shall maintain correct records on an appropriate form for all inspections and tests performed. Instructions received from the Engineer, and actions taken as a result of those instructions. These records shall include evidence that the required inspections or tests have been performed

(including type and number of inspections or tests, nature of defects, causes for rejection, etc.) proposed or directed remedial action, and corrective action taken. The Contractor shall document inspections and tests as required by each Section of the specifications.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01500
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 TEMPORARY ELECTRICITY AND LIGHTING

A. Service and Distribution:

1. Contractor shall provide generators as needed to provide electrical service for construction. In addition, provide temporary wiring, outlets, lights, etc., as required for construction power and lighting during construction period. Remove all temporary wiring upon completion of work. The use of school electrical outlets is prohibited.
2. Provide ground fault interrupters as required by Code. Distribution equipment and wiring devices for temporary power and lighting need not be new; however, the installation shall conform to good safe general practice as required by the Occupational Safety and Health Administration.

B. Temporary Power:

1. Contractor shall provide double duplex 120V outlets and special outlets as needed. Each subcontractor shall furnish extension cords necessary to convey electricity from outlets to portions of the building in which their work is in progress.

C. Temporary Lighting:

1. Each trade shall provide working lights (plug-in portable lights) as required completing their portion of the work.
2. Contractor shall be responsible for seeing that temporary lighting is turned off at times when no work is in progress, unless required for security.

1.02 TEMPORARY HEAT AND ENCLOSURES

- A. Contractor shall provide temporary heat necessary for the execution of the work on the project. Temporary heating apparatus shall be installed, maintained, and operated by the Contractor in a safe manner to facilitate the continuation and protection of the work.

1. The trade requiring same shall provide temporary enclosures necessary for holding temporary heat such as enclosures for masonry or concrete work or for thawing frozen ground.

1.03 FIELD OFFICE AND OTHER TEMPORARY STRUCTURES

- A. Contractor shall provide and maintain a suitable temporary field office for his own use. The use of an office within 10 miles of any of the subject schools is permissible, provided it can serve the functions of a field office. Offices and all other temporary structures shall be removed from the site upon completion of the work. Temporary field office shall be large enough to accommodate weekly progress meetings as specified in Section 01311.
- B. Temporary structures or storage areas used for storage and offices for contractors shall be located on the site in an orderly manner as determined by the Contractor.

1.04 TEMPORARY TELEPHONE SERVICE

- A. Contractor shall cause to be installed in his field office a telephone and facsimile machine for the use of him and others engaged in the work. Contractor shall pay for the installation, maintenance, removal, and all other charges for the use of this telephone and facsimile machine.

1.05 TEMPORARY WATER

- A. Contractor shall provide water required in the work as well as temporary connection, plumbing, piping, etc., necessary to convey same to places needed.

1.06 TEMPORARY SANITARY FACILITIES

- A. Contractor shall provide and maintain, in a neat and sanitary condition, adequate chemical toilet facilities for the use of employees engaged in the work, in strict compliance with the requirements of applicable codes, regulations, laws, and ordinances.
- B. Toilet facilities shall be located a minimum of 200 feet away from school buildings.

1.07 TEMPORARY PROTECTIVE FACILITIES

- A. Contractor shall provide and maintain protective devices and facilities for the protection of the public and the general protection of workers on the project including, but not limited to, the following:
1. Danger signs warning against hazards created by such features of construction such as protruding nails, hoists, and falling materials.
 2. Fire protection equipment. Contractor shall provide and maintain fire extinguishers and active fire hydrants where indicated, maintain fire lanes to hydrants, and provide other equipment as necessary for proper fire protection during construction. Such equipment shall be used for fire protection only.
 3. Contractor and each subcontractor shall provide temporary walks, roadways, trench covers, barricades, bulkheads, railings, danger lights, and signals, etc., required for work by Federal, State, and Municipal safety laws and building codes.
 4. Temporary protective facilities shall be maintained in good condition throughout the term of the work. At completion of the work, they shall be removed and all work damaged thereby shall be repaired and replaced to good condition.
 5. Danger lights shall be kept lighted each night from sunset to sunrise.
 6. Overhead protection above entries and emergency exits in work areas if school is in session.
 7. Protected emergency exit paths through the construction area must be maintained at all exterior doors while school is in session.

1.08 SCAFFOLDING AND RUNWAYS

- A. Scaffolding shall be the responsibility of the trade requiring same who shall include its cost in his bid and shall be responsible for its maintenance.
- B. Contractor shall furnish, erect, and maintain runways, guard rails. Platforms, and similar temporary construction, as he may deem necessary for the safe performance of the contract. Such facilities shall be of type and arrangement as required for their specific use; shall be substantially constructed throughout. Strongly supported, well secured, and shall comply with applicable rules and regulations or applicable state and local codes.

1.09 CLOSURES

- A. Contractor shall erect temporary closures over openings when weather conditions render such action necessary for proper installation of any portion of the work.

1.10 PROTECTION FOR WORK IN PLACE

- A. Work in place that is Subject to injury because of adjacent operations shall be covered, boarded up, or substantially enclosed with adequate protection. All forms of protection shall be constructed in a manner such that, upon completion, the entire work will be delivered to the Owner in undamaged condition.

1.11 CONSTRUCTION FENCE

- A. Contractor shall erect construction fencing as required for protection of the public. The fence shall be 6'-0" high, constructed of chain link with steel posts at 8'-0" on center. Top of fabric shall be knuckled to remove all sharp edges. Provide gates where required. Gates shall be kept closed and locked after working hours. At completion of exterior work, fences shall be removed from the site. Patch areas damaged by fence posts after removal. Install "No Trespassing - Construction Area" signs on fence.
- B. Construction fences shall be in place between work areas and children when school is in session. Coordinate fencing locations with school administration at each school.

1.12 ACCESS

- A. Limit access to necessary routes to perform the work.

1.13 TEMPORARY CONTROLS

- A. General: Comply with applicable codes, ordinances. and regulations.
- B. Noise Control: Minimize noise at all times near residential areas. Equipment shall be properly muffled. Do not operate equipment after hours. Heavy equipment, generators, and other equipment that could disrupt school must be kept away from the buildings while school is in session. Coordinate noisy work and equipment locations with local school administration.
- C. Dust Control: When construction procedures result in dust that becomes a nuisance to the Owner, private property, or traffic, Contractor shall control said dust.

- D. Water Control: Provide means necessary to control flow of water at the work to prevent damage to the Owner's property and adjacent property.
- E. Debris Control: Contractor shall continually police the work area to prevent collection and scattering of debris, loosened, uncovered or caused by execution of the work. Contractor shall provide and maintain in a neat and orderly condition, adequate trash and debris containers of sufficient size for the use of the Contractor and subcontractors on this project. Contractor shall allow and accommodate use of the trash and debris containers by the Owner's separate contractors. Coordinate debris container locations and service with local school administrators.
- F. Pollution Control: Take extreme caution to prevent spilling or littering of water polluting substances. Do not pump foreign materials into any portion of the sanitary or storm sewer collection systems. Provide labor, equipment, and materials necessary to remedy such pollution. No burning of debris, or any other air polluting methods or equipment, shall be allowed.
- G. Erosion Control: Provide such facilities as might be necessary to prevent erosive damage to the Owner's property or to adjacent properties.

1.14 CLEAN-UP DURING CONSTRUCTION

- A. Clean-Up during Construction: Contractor shall keep the building and premises free from surplus material, waste material, dirt and rubbish caused by the work. At the completion of work, Contractor shall remove surplus material, waste material, dirt and rubbish, tools, equipment, scaffolding, and shall leave the project premises clean.
- B. Contractor shall perform clean-up daily and transport rubbish to an on-site trash and debris container as described in Article 1.13 at a location coordinated with each school administration, who shall arrange for its maintenance and removal.

1.15.1 PARKING

- A. Contractor and workers shall not park in school parking lots while classes are in session, 45 minutes prior to the start of classes, and 45 minutes after the end of classes.

- B. Construction traffic and parking shall be coordinated with the administration at each school.
- C. Do not block streets, parking lot access, or fire lanes.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01600
MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS

- A. General and Supplementary Conditions.

1.02 PRODUCTS

- A. Products include material, equipment and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.
 - 1. Manufacturers and systems listed within a Specification Section are acceptable subject to their fully meeting the detail requirements of that particular section.
- C. Components required to be supplied in quantity within a Specification Section shall be the same, and shall be interchangeable.
- D. No asbestos containing materials will be incorporated into project. See Section 01770.

1.03 TRANSPORTATION AND HANDLING

- A. Transport and handle products by methods to prevent soiling or damage.
- B. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

1.04 STORAGE AND PROTECTION

- A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.

- C. Store loose granular materials on solid surfaces in a well drained area; prevent mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.
- E. After installation, provide coverings, to protect products from damage from traffic and construction operations, remove when no longer needed.

1.05 PRODUCTS LIST

- A. Included in the Proposal Form, provide a list of major products which are proposed for installation, including name of manufacturer and supplier. This list does not replace requirements for material information and submittals for these products.

1.06 PRODUCTS OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards.
- B. Products Specified by Naming One or More Manufacturers with a Substitution Paragraph: Submit a request for substitution for any manufacturer not specifically named.
- C. Product Specified by Naming Several Manufacturers: Products of named manufacturers meeting specifications; no options, no substitutions.
- D. Products Specified by Naming Only One Manufacturer: No option; no substitution allowed.

1.07 LIMITATION ON SUBSTITUTIONS

- A. During the bidding period, Document 00200 governs times for submitting requests for substitutions under requirements specified in this Section.
- B. Substitutions after Award of Contract will only be considered 1) due to unavailability of specified product for reasons beyond the Contractors control; 2) which result in a better job; 3) which improve lead time; and 4) which result in a saving to the Owner.

- C. Substitutions will not be considered when indicated on Shop Drawings or Product Data submittals 1) without a prior formal request; 2) when requested directly by subcontractor or supplier; 3) or when acceptance will require substantial revision of Contract Documents.
- D. Requests for substitution shall be accompanied by a written comparison between the specified item and the substitute item. Request submittals shall be accompanied by complete technical data, including laboratory reports, if applicable, on the proposed product. Each item proposed for substitution shall be clearly identified. Submit listing of local installations where proposed products have been provided, include names and phone number of references familiar with installation and proposed product's performance. Explain fully the differences, if any, between the proposed product and the products named in the Specifications, i.e., delivery time.
- E. Substitute products shall not be ordered or installed without written acceptance.
- F. Only one (1) request for substitution for each product will be considered. When substitution is not accepted, provide specified product.
- G. Engineer will determine acceptability of Substitutions.

1.08 CONTRACTOR REPRESENTATION

- A. Request for substitution constitutes a representation that Contractor has investigated proposed product and has determined that it is equal to or superior in all respects to specified product.
- B. Contractor will provide same warranty for substitution as for specified product.
- C. Contractor will coordinate installation of accepted substitute, making such changes as may be required for work to be completed in all respects.
- D. Contractor waives claims for additional costs related to Substitution that may later become apparent.
- E. If such substituted products do not meet or exceed the above requirements, whether before, during or incorporated into the work, the Contractor shall, at no additional cost to the Owner, replace substituted products with the products originally specified.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01730
CUTTING AND PATCHING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work Included: Contractor shall be responsible for all cutting, fitting and patching including related excavation and backfill, required to complete the work or to:
1. Make its parts fit together properly.
 2. Uncover portions of the work to provide for installation of ill-timed work.
 3. Remove and replace defective work.
 4. Remove and replace work not conforming to requirements of Contract Documents.
 5. Remove samples of installed work installed for material testing purposes only. Remove mockup panel installations or portions of mockup panel installations that are rejected by the Engineer.
 6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.

1.02 QUALITY ASSURANCE

- A. Notification of Engineer: Notify Engineer well in advance of executing any cutting or alteration which affects:
1. The work of the Owner or any separate contractor.
 2. The structural value or integrity of any element to the Project.
 3. The integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
 4. The efficiency. Operational life, maintenance or safety of operational elements.
 5. The visual qualities of sight-exposed elements.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Comply with specifications and standards for each specific product involved.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Inspect existing conditions of the Project. Including elements subject to damage or to movement during cutting and patching. After uncovering work, inspect the conditions affecting the installation of products, or performance of the work. Report unsatisfactory or questionable conditions to the Engineer; do not proceed with the work until the Engineer has provided further instructions.

3.02 PREPARATION

- A. Provide devices and methods to protect other portions of the project from damage. Provide protection from the elements for that portion of the project which may be exposed by cutting and patching work, and maintain excavations free from water.

3.03 CUTTING AND PATCHING

- A. General: Openings in construction which are required by the work shall be left by trade involved. It is the responsibility of the contractor to supply or obtain in advance proper and sufficiently detailed information required for openings.
- B. Cutting: Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation or repairs. Execute excavating and backfilling by methods which will prevent settlement or damage to other work. Employ the installer or fabricator of work on this project to perform cutting and patching for:
 - 1. Weather-exposed or moisture-resistant elements.
 - 2. Sight-exposed finished surfaces. Cut asphalt, concrete or masonry using a saw or core drills as applicable. Pneumatic impact tools will not be allowed unless approved by Engineer.
- C. Fitting: Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- D. Patching: Not Used
- E. Finishing: Where surfaces are exposed, finish with same materials specified in finish schedule or material that is on constructed

surfaces. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes:

1. For continuous surfaces, refinish to nearest intersection or joint as necessary to provide an even finish.

END OF SECTION

SECTION 01740
FINAL CLEANING

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS

- A. Construction Facilities & Temporary Controls: Section 01500

1.02 CLEANERS

- A. Cleaners: With the exception of clean-up of the site and cleaning specifically assigned to contractors under the various sections of the Specifications, all final clean-up of exterior and interior of the building shall be done by professional cleaners.

1.03 FINAL CLEAN-UP

- A. Exterior: In addition to items specified below, all surfaces on exterior, concrete, metal, etc., shall be carefully and thoroughly cleaned.
- B. Add new fencing to replace damaged / removed during construction esp. at gas meters and mechanical items.
- C. Glass: Exterior surface of all glass shall be carefully and thoroughly cleaned by professional window cleaners and left absolutely clean and free from paint, labels, grease, dirt etc.
- D. Fixtures: Clean all electric fixtures, lights, hose bibs, etc., and leave clean from paint, grease, dirt, etc.

1.04 COMPLETION

- A. The entire work inside and out, and the entire premises shall be in first-class, clean condition upon completion before being accepted by the Owner.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01770
CONTRACT CLOSEOUT REQUIREMENTS, INTERMEDIATE AND FINAL

PART 1 - GENERAL

1.01 PROJECT RECORD DOCUMENTS

- A. Job Site Documents: Maintain at the job site, one (1) record copy of the following:
 - 1. Drawings
 - 2. Project Manual
 - 3. Addenda
 - 4. Reviewed and Accepted Shop Drawings and Product Data Submittals
 - 5. Change Orders
 - 6. Other Modifications to Contract
 - 7. Field Test Records
- B. Do not use record documents for construction purposes. Maintain documents in clean, dry, legible condition. Apart from documents used for construction.
- C. Record Information: Label each record document "Project Record". Mark all information with contrasting color using indelible ink. Keep each record current. Do not permanently conceal any work until required information is recorded. Record following information on the Record Drawings:
 - 1. Field changes of dimension and detail
 - 2. Changes by addendum, change order, or field order
 - 3. Details not on original contract drawings
- D. Record following information in the Record Project Manual:
 - 1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment in each section actually installed
 - 2. Changes by addendum, change order, or field order
 - 3. Other matters not originally specified
- E. Maintain Shop Drawings/Product Data Submittals as record documents: Record changes made after review by all parties.

1.02 SUBSTANTIAL COMPLETION

- A. Preparation: Contractor shall submit written certification that project, or designated portion of project is substantially complete and request a Punch List Observation by the Engineer. Attached to said request shall be the Contractor's own Punch List describing incomplete work or work requiring correction.
- B. Observation: Upon receipt of the Contractor's request for Punch List Observation, the Engineer will visit the site for purposes of determining Substantial Completion. Should the Engineer determine that the work is substantially complete, he will prepare, if necessary, a Punch List of deficiencies in addition to those listed on the Contractor's Punch List that need to be corrected before Final Observation. The Engineer may then issue a Certificate of Substantial Completion with the deficiencies noted. Should the Engineer determine that the work is not substantially complete, he will notify the Contractor, in writing, stating reasons. After Contractor completes work, he shall resubmit certification and request for Punch List Observation.

1.03 REINSPECTION FEES

- A. Should the Contractor fail to complete and/or correct all punch list items such that additional inspections are required by the Engineer, the Contractor will be billed at \$150.00 per hour plus mileage and per diem for the Engineer's additional services. If the Contractor has any questions with regards to any item on the punch list, he is to request clarification before final inspection.

1.04 FINAL OBSERVATION AND ACCEPTANCE

- A. Preparation: Prior to the Final Observation by the Engineer, The Contractor shall submit written certification that:
 - 1. Project has been inspected for compliance with Contract Documents.
 - 2. Work has been completed in accordance with Contract Documents.
 - 3. Project is completed and ready for Final Observation.
- B. Observation: Upon receipt of written certification that project is complete; the Engineer shall visit the site for purposes of determining final completion of the work.

1.05 CONTRACT CLOSEOUT SUBMITTALS

- A. Evidence of Payments and Release of Liens:

1. Affidavit of Payment of Debts and Claims: AIA G706.
 2. Affidavit of Release of Liens: AIA G706A.
 3. Consent of Surety to Final Payment: AIA G707.
- B. Warranties: Upon completion of the work, the Contractor shall deliver to the Engineer in duplicate, a written warranty addressed to the Owner, properly signed and notarized, warranting that the Contractor and each subcontractor shall remedy any defects due to faulty materials or workmanship and pay for consequential damage resulting there from. Which appear in his work within a period of one (1) year from the Date of Substantial Completion and in accordance with the terms of any special warranties (in excess of one year) as specified in individual Sections of the Specification. The Owner shall give notice of observed defects to the Contractor with reasonable promptness during the warranty period. Submit special warranties as specified in individual Sections of the Specifications. All warranties shall include the name and address of the Contractor, subcontractor or supplier, the project name, and the item(s) being warranted. Warranties specified under individual Sections of the Specification for periods longer than specified above shall be submitted as stated above and shall include payment for consequential damage due to faulty materials or workmanship for full duration of warranty.
- C. Inspection Certificates: Each subcontractor shall, upon completion of the work, secure in triplicate all certificates from any State or local governing body having jurisdiction in dictating that the work is in strict accordance with applicable codes and deliver same to the Contractor for transmittal to the Engineer.
- D. Spare Parts and Materials: As specified in individual Sections. Deliver to Owner stating amounts of materials delivered (number of gallons, cases, etc.). Provide evidence of delivery to Owner by signed receipt.
- E. Asbestos Containing Material: Provide a letter certifying that to the best of Contractor's knowledge and belief, no asbestos containing materials have been incorporated into this project.
- F. Record Documents: At completion of project, deliver Record Documents (as defined in Article 1.01, Paragraph A of this Section) to Engineer with transmittal letter containing date, project title and number, contractor's name and address, title and number of each record document. Include certification letter that each document is

complete and accurate. Contractor or his authorized representative shall sign submittal.

1.06 FINAL COMPLETION AND FINAL PAYMENT

- A. Submit final Application for Payment to the Engineer in accordance with the requirements of the General and Supplementary Conditions. Application shall not be submitted until all contract closeout requirements have been met.
- B. Application shall reflect all adjustments:
 - 1. Original Contract sum
 - 2. Additions and deductions resulting from:
 - a. Change orders
 - b. Unit prices
 - c. Allowances
 - d. Deductions for uncorrected work
 - e. Deductions for re-inspection fees (see below)
 - f. Other adjustments
 - 3. Total Contract Sum, as adjusted
 - 4. Previous payments
 - 5. Sum remaining due
- C. Re-inspection Fees: Contractor shall reimburse the Owner for any re-inspection fees charged by the Engineer as a result of the Contractor's failure to achieve Substantial Completion or Final Completion when such status has been so stated by the Contractor pursuant to Article 1.03.

1.07 POST-CONSTRUCTION INSPECTION

- A. Prior to expiration of one (1) year from Date of Substantial Completion, the Owner, Engineer and Contractor will inspect project to determine whether corrective work is required. Contractor will be notified in writing of all deficiencies. Contractor must correct noted deficiencies within ten (10) days of receipt of notification.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION