
ISSUED MAY 21, 2025

CHESANING UNION SCHOOLS

BIG ROCK ELEMENTARY & HIGH SCHOOL REMODELING

BID OPENING
JUNE 11, 2025 @ 1:00 P.M.

PRE-BID MEETING
JUNE 4, 2025 @ 1:00 P.M.



SECTION 00 0100

PROJECT DIRECTORY

PROJECT: Chesaning Union Schools
Big Rock Elementary & High School Remodeling

PROJECT LOCATION: Big Rock Elementary School
920 E. Broad St.
Chesaning, MI 48616

Chesaning Union High School
850 N. Fourth St.
Chesaning, MI 48616

CONSTRUCTION MANAGER: R.C. Hendrick & Son, Inc.
2885 S. Graham Road
Saginaw, MI 48609
989.781.8116 (Phone)
989.781.9512 (Fax)

ARCHITECT: French Associates
2851 High Meadow Circle, Suite 100
Auburn hills, MI 48326
248.656.1377 (Phone)

END OF SECTION 00 0100

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END OF SECTION 00 0110

SECTION 00 1000

ADVERTISEMENT FOR BID

Notice is hereby given that Chesaning Union Schools is receiving bids from trade contractors for the following project:

**BIG ROCK ELEMENTARY & HIGH SCHOOL REMODELING
Work for 2026 - Addition / Renovations / Mechanical / Electrical / Site Work**

Complete proposals will be received for the following work categories for both buildings in accordance with drawings and specifications.

**BID CATEGORY 1: GENERAL TRADES
BID CATEGORY 2: GLASS & GLAZING
BID CATEGORY 3: DRYWALL & ACOUSTICAL
BID CATEGORY 4: FLOORING
BID CATEGORY 5: PAINTING
BID CATEGORY 6: MECHANICAL
BID CATEGORY 7: ELECTRICAL
BID CATEGORY 8: ASPHALT PAVING / MARKINGS**

Bids will be received at the Office of the Superintendent at **1:00 p.m. on Wednesday, June 11th, 2025** at which time the bids will be publicly opened and read aloud.

Proposals should be submitted and be addressed to:

Michael McGough - Superintendent
Chesaning Union Schools
850 N. Fourth St.
Chesaning, MI 48616

The Owner reserves the right to reject any, part of any or all bids and to waive all informalities in the bidding procedures. The Owner reserves the right to reject any bid when Bidder fails to submit data required by the Bidding Documents, or if the bid is submitted incomplete or irregular. No telephonic, telegraphic, email, fax bids or modification to a submitted bid will be received or considered by the Owner.

Bids may not be withdrawn for a period of sixty (60) days after the bid date.

Bid and Performance Bond & Labor and Material Payment Bond are required.

THIS IS A PREVAILING WAGE PROJECT.

PRE-BID CONFERENCE

A pre-bid meeting is scheduled at **1:00 p.m. on Wednesday, June 4th, 2025**. Please meet at the High School Cafeteria.

SCHEDULE

Project starts no later than June 5, 2026. Some items may be able to start earlier.

QUESTIONS / RFIs

All questions regarding the plans and specifications are to be emailed to R.C. Hendrick & Son, Inc. at chip@rchendrick.com.

DRAWINGS, SPECIFICATIONS AND ADDENDUMS

Plans, Specifications and Addendums will be available for download from the R.C. Hendrick Plan Room located at www.rchendrick.com. Click on "Plan Room" and then follow the link to access the project files. If a password is required to access the files, please email the Project Manager associated with the project.

Addendums will be posted to R.C. Hendrick's Online Plan Room. Addendums will be posted no later than 12:00 Noon on the day before the bid is due. R.C. Hendrick will send out a notice that an addendum is available to all known planholders. **It is the responsibility of every bidder to check the project site for addendums and note them on the bid form.**

END OF SECTION 00 1000

SECTION 00 2000

INSTRUCTIONS TO BIDDERS

1. DEFINITIONS

Definitions set forth in the General Conditions of the Contract Construction, AIA Document A232 - Current Edition, and in other contract documents are applicable to the Bidding Documents.

Bidding Documents: Bidding Documents include the Drawings, Specifications, Addenda prepared by the Architects, Engineers, Consultants and Construction Manager and anything referenced within those documents.

Addenda: Addenda are written or graphic instruments issued prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.

Bid: A bid is a complete and properly signed proposal to do the work for a stipulated sum, submitted in accordance with the Bidding Documents.

Base Bid: The sum stated in the Bid Form for which the Bidder offers to perform the work described in the Bidding Documents as the Base Bid.

Alternate: An alternate is an amount stated in the Bid to be added or deducted from the Base Bid if the corresponding change in the work, as described in the Bidding Documents, is accepted.

Unit Price: An amount stated as a price per unit of measurements for materials or services described in the Bidding Documents.

Bidder: A person or entity who submits a bid.

Furnish: This term is used to mean supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation and similar operations.

2. CONSTRUCTION MANAGER

R.C. Hendrick & Son, Inc. has been selected by the Owner to organize and/or direct the complete construction of the project and, as such, will act as a representative of the Owner in those matters so designated. Depending on the contractual arrangement with the Owner, R.C. Hendrick may not have on-site supervision and may not be available for questions during the construction process.

3. BIDDING PROCEDURE

R.C. Hendrick's online Plan Room is the official location for all bidding documents. **It is each bidder's responsibility to ensure that they have viewed all addenda posted to the Plan Room.** Addendums will be posted no later than 12:00 Noon on the day before the bid is due.

Bidders are to bid COMPLETE Bid Categories only. Bids for partial categories or noting any exceptions may cause your bid to be rejected. If you feel that something is part of your category that should not be included, please submit a Pre-Bid RFI.

Bidders shall include all work noted in the Bid Category Description as well as General Bid Category Notes which apply to ALL Categories.

Each Bidder by submitting this Bid to the Owner represents that they have read and understand the Bidding Documents. Each bidder also represents that they have made a site inspection, familiarized themselves with the local conditions under which the work is to be performed, and have correlated observations with requirements of the Bidding Documents.

Bids shall be submitted in TRIPLICATE. (1) One Original and (2) Two Copies of the Bid Form are required. Fill in ALL blanks on the bid form. Information must be typed or in ink. Express sums in both words and figures. The amount in words will govern in case of a discrepancy. The signer of the bid must initial all interlineations, alterations and erasures.

Enclose the bid and other documents required in a sealed envelope. If the Bid is sent by mail, enclose the sealed envelope in a separate mailing envelope with "Sealed Bid Enclosed" printed on the envelope.

Address the envelope to the party receiving the bids and state project name, the bidder's name and address, and the designated Bid Category # for which the bid is submitted on the outside of the envelope. If you are bidding on more than one Bid Category, each bid must be in its own **clearly marked** envelope.

Bids will be **PUBLICLY** opened after the deadline to submit bids. Only properly identified bids received on time will be opened.

4. COMBINED BIDS

If you intend on offering a discount as part of a Combined Bid, you **MUST** submit a base bid in each category and each category **MUST** be in a separate envelope. The Combined Bid must be entered on at least one Bid Form submitted by the bidder.

5. ALTERNATES

Alternates are listed on the Bid Form and are described in further detail in the Architectural Specification. Each bidder should review all Alternates and determine if what is described in the Specification and shown on the Drawings causes an addition or deduction to their Base Bid. Bidders shall indicate on the Bid Form if the Alternate is an ADD or DEDUCT to the Base Bid and indicate the costs associated. If the Alternate does not affect your scope of work, enter "No

Change” in the space provided. The Owner will have the right to accept Alternates in any order or combination and to determine the low bidder on the basis of the sum of the base bid and the accepted Alternate.

6. VOLUNTARY ALTERNATES

The bidder may submit voluntary alternates with their bid. Voluntary Alternates are changes in scope or a specification. Voluntary alternates shall be listed in the appropriate space on the Bid Form. If additional pages are necessary, attach them to the end of the Bid Form on your company letterhead. Voluntary alternates will be reviewed after the award of a contract and the Owner reserves the right to accept or reject any Voluntary Alternate.

7. QUESTIONS AND DISCREPENCIES

Notify the Construction Manager at least five (5) days prior to bid of ambiguities, inconsistencies, or error discovered upon examination of the Bidding Documents, site or local conditions. Submit requests for clarification or interpretation of the Bidding Documents in writing. Interpretation, correction, or change of the Bidding Documents will be made by Addendum, all other forms will be non-binding. Questions should be EMAILED to the Project Manager listed in the R.C. Hendrick Online Plan Room.

8. SUBSTITUTIONS

The materials, products, and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality. Pre-Bid substitution requests must be submitted in writing and received by the CM at least ten (10) days prior to bid date. The burden of proof of the merit of the proposed substitute is upon the proposer. The Owner’s decision of acceptance or rejection of a proposed substitution will be final.

Requests for substitutions shall include:

1. The name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cut-sheets, performance, test data and other information necessary for an evaluation.
2. A statement setting forth any changes in other materials, equipment, other work that incorporation of the substitute would require, shall be included.

9. MODIFICATION OR WITHDRAWAL OF A BID

A bid may not be modified or withdrawn following the time and date designated for the receipt of bids. Prior to the time and date designated for receipt of bids, a submitted bid may be withdrawn by notice to the party receiving bids at the place designated for receipt of bids. Notice shall be in writing over the signature of the bidder or in person. Withdrawal notice shall be submitted by mail, telegram, or fax postmarked on or before the date and time for receipt of bids. Withdrawn bids may be resubmitted up to the time designated for the receipt of bids.

10. OWNER'S RESERVATION OF RIGHTS

The Owner reserves the right to reject any, part of any or all bids and to waive all informalities in the bidding procedures. The Owner reserves the right to reject any bid when Bidder fails to submit data required by the Bidding Documents, or if the bid is submitted incomplete or irregular. No telephonic, telegraphic, email, fax bids or modification to a submitted bid will be received or considered by the Owner.

The Owner will have the right to accept Alternates in any order or combination and to determine the low bidder on the basis of the sum of the base bid and the accepted Alternate.

It is the Owner's intent to award a contract to the lowest responsible and competent bidder provided the bid has been submitted in accordance with the requirements of the bidding documents and does not exceed the funds available for construction.

The Owner reserves the right to cancel the project and contract at any point. The contractor will be reimbursed for work performed up to cancellation based upon the amount of work completed.

11. POST BID INFORMATION

The Bidder shall within seven (7) days of notification of selection for the award of the Contract for the work, submit the following information.

- A. Designation of the Work to be performed by the Bidder with his own forces.
- B. Proprietary names and the suppliers of principal items or systems of materials and equipment proposed for the Work.
- C. List of names of the subcontractors or other persons or entities (including those who are to furnish materials or equipment fabricated to the special design) proposed for the principal portions of the Work.
- D. A list of proposed job site staff and home office staff directly involved with this Project. Indicate the qualifications, pay rates, titles, responsibilities, and duties of each person.
- E. Certificates evidencing insurance coverage in the amounts and types specified.
- F. An interim construction schedule in a bar graph format.
- G. A completed Schedule of Values in the format provided by the Owner.

The Bidder will be required to establish to the satisfaction of the Owner, the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

Prior to the award of the Contract, the Bidder will be notified in writing. If the Owner has reasonable objection to any proposed person or entity, the Bidder may at his option, (1) withdraw his bid or (2) submit an acceptable substitute person or entity with an adjustment in cost occasioned by such substitution. The Owner may at his discretion, accept the adjusted bid price or disqualify the Bidder.

The Owner reserves the right to request financial statements from the bidder before the award of a contract.

12. POST BID INTERVIEW

The selected Contractor as determined by the Owner may be required to attend a pre-contract award interview at the job site office of R.C. Hendrick & Son, Inc. for the purpose of reviewing the submitted bid for compliance with specified products, methods of installation, warranties, general job procedures, post bid information and related items.

Meeting minutes of the pre-contract interview will be taken by R.C. Hendrick. Before concluding the interview, the minutes will be signed by those in attendance. The interview may be recorded in person or via conference call and will become part of the contract.

13. TAXES

Each bidder shall include in their proposal, and agree to pay, all fees and taxes including Sales and Use which they may be required to pay in connection with the performance of the contract. Also, the bidder includes and agrees to pay for all contributions to unemployment compensation, health and welfare, appropriate benefits, or other purposes now or hereafter during the term of the contract and the Owner and Construction Manager shall not be liable for any additional charges.

14. LOCAL PRODUCTS

All prime bidders, subcontractors and suppliers shall utilize products that are local to the region or State whenever possible where price, quality and performance are equal to or better than non-local products.

15. MINORITY SUBCONTRACTORS

Bidders are encouraged to use the services of minority subcontractors if possible in the pursuance of this project.

16. NON-COLLUSION CLAUSE

By submitting and signing the proposal form, the bidder declares that neither the bidding firm nor agents of the bidding firm or any other members of the proposed team have entered into any collusion or agreement concerning any aspect of the proposal.

17. CONSTRUCTION DOCUMENT RESPONSIBILITIES

All bidders are responsible for the COMPLETE set of drawings and specifications including the CM Issued Front-End, Technical Specifications (Architectural, Mechanical, and Electrical), Drawings (Civil, Structural, Architectural, Mechanical, Electrical, etc.). Bidders are to familiarize themselves with the work of other trades and participate in the coordination of work activities.

All bidders are to include, in their entirety, the work and instructions described in Division 0 – “Bidding and Contract Requirements” and Division 1 – “General Requirements.”

18. WARRANTY

All work shall be guaranteed for a period of twelve (12) months from the date of substantial completion of the entire Bid Package unless more specifically stated in the contract documents. All service during this 12-month period shall be rendered without charge to the Owner. This 12-month warranty does not replace any longer warranties required by the specification.

19. SITE VISIT

All contractors are required to visit the site to familiarize themselves with existing conditions either through the Pre-Bid Conference or through a visit you have scheduled with R.C. Hendrick. Contractors shall not visit or walk through the site without permission from R.C. Hendrick.

20. SUBMITTALS

Submittals of product data, shop drawings, color charts and samples are required for this project. When submitting information electronically all contractors shall use the Portable Document Format (.pdf) for all email attachments. Forms and requests that are submitted in a different format may be rejected resulting in delays to the schedule and payments.

21. ADDITIONAL SETS OF DRAWINGS AND SPECS

The Owner will not furnish additional sets to the successful bidder(s). Contractors will need to purchase or reproduce additional sets of plans and specifications at their own expense.

22. EXTRA WORK

The maximum amount of markup for extra work is 15% and that shall include overhead, profit, estimating expense, other office expense, insurance and bonds.

23. SWORN STATEMENTS AND WAIVERS

Sworn statements and waivers are required with every payment request. Final payment will not be issued without full unconditional waivers from all suppliers.

24. PROJECT CLOSEOUT

Closeout documents must be submitted in both paper and electronic (PDF) formats.

END OF SECTION 00 2000

SECTION 00 2200

BID CATEGORY GENERAL NOTES

The following are General Notes that apply to all bid categories.

1. **All bid categories are to include all sections in Division 0 and Division 1 in their entirety.**
2. Full compliance with all the safety regulations and requirements of Federal OSHA, MIOSHA, State Authorities, Local Authorities and the Construction Manager. Failure to do so will cause this contractor to be removed from the site. (Hard Hats and Work Boots must be worn at all times.)
3. We will be using an online system called BuildingBlok for all submittals. Contractors must upload all submittals to this online system. Refer to Specification section 01 3300 – Submittal Procedures. RCH will hold one training session for contractors not familiar with the program. There is no cost incurred by contractors for using this online system.
4. Smoking and use of Drugs or Alcohol on School property is strictly prohibited!
5. **The maximum allowable markup on Changes in the Work shall be eleven percent (11%) which includes overhead, profit, estimating expenses, other office expense, bond and insurance costs.**
6. Upload all start up documents to BuildingBlok within 10 working days from receipt of Notice to Proceed. Startup documents to include signed contracts, Schedule of Values, Certificate of Insurance, Shop Drawings and Submittals, Contractors Safety Program and Current SDS Files.
7. Include sales tax in base bids.
8. **This is a Prevailing Wage project.**
9. **Each bid category shall include all work for Big Rock Elementary and Chesaning Union High School.**

END OF SECTION 00 2200

SECTION 00 2400

BID CATEGORY DESCRIPTIONS

BID CATEGORY #1

GENERAL TRADES

The work scope for this Bid Category includes, but is not limited to the work as specified in the R.C. Hendrick Project Manual, the Architect's Technical Specification, the Drawings and any Addenda issued prior to the bid date.

Provide all labor, materials and equipment to satisfy the following Specification Sections and Notes unless otherwise noted.

Division 00	Project Bidding Requirements
Division 01	General Requirements
02 4119	Selective Structure Demolition
03 3000	Cast-In Place Concrete
04 2000	Unit Masonry
05 1200	Structural Steel Framing
05 3100	Steel Decking
05 4000	Cold-Formed Metal Framing
05 5000	Metal Fabrications
05 7500	Decorative Formed Metal
06 1600	Sheathing
06 4023	Interior Architectural Woodwork
07 0150	Roof Repairs
07 1113	Bituminous Dampproofing
07 2100	Thermal Insulation
07 4113	Metal Roof Panels
07 4213	Metal Wall Panels
07 4660	Fiber Cement Siding
07 6200	Sheet Metal Flashing and Trim
07 7100	Roof Specialties
07 8413	Penetration Firestopping (Firestopping and Smoke Stopping Systems)
07 9200	Joint Sealants
08 1113	Hollow Metal Doors and Frames
08 1416	Flush Wood Doors
08 3113	Access Doors and Frames
08 7200	Door Hardware
10 1100	Visual Display Surfaces
10 4400	Fire Protection Specialties
11 6633	Gymnasium Equipment
12 2413	Roller Window Shades

31 1000	Site Clearing
31 1012	Fine Grading
31 1018	Soil Erosion Control
32 1313	Cement Concrete Paving
32 1373	Concrete Pavement Joint Sealants
33 4100	Storm Sewers - Underdrainage System

Bid Category Notes (Including, but not limited to):

1. Install anchor bolts, bearing plates and miscellaneous items in masonry as shown or specified and supplied by other trades.
2. This contractor is to thoroughly clean all concrete floors and masonry walls of excess mortar prior to painting and floor finishes.
3. This contractor to re-scrape masonry walls after application of block filler and prior to placement of finish paint and/or ceramic tile.
4. At new openings, provide demolition, toothing, shoring and replacement of masonry.
5. This bid category to provide dust control for their activities, cutting, mixing and driving equipment around the site. Dust to be kept minimized at all times.
6. Provide all toothing of masonry openings as required for installation of new openings or as needed for a smooth transition.
7. Provide grouting of hollow metal frames.
8. Provide all interior and exterior caulking of control joints, corners, lintels, door frames in masonry walls, etc.
9. Provide all architectural demolition as shown or specified. Provide and install shoring as required.
10. Furnish all layout for this bid category.
11. Provide and install all exterior and interior rough and finish carpentry items including frames, nailers, blocking, plywood sheathing, etc.
12. Furnish all embedded anchors and bolts for attachment of carpentry to masonry or concrete.
13. Furnish all fasteners necessary for all work included in this bid category.
14. Provide and install all door hardware for doors supplied by this bid category.
15. Provide and install all hollow metal doorframes, hollow metal doors, wood doors, and associated hardware.
16. Provide all caulking and sealants in this bid category.
17. Provide attachments on all columns, lintels, and beams as required to attach masonry anchors as shown or specified.
18. Include **all** interior/exterior demolition and repairs other than Mechanical or Electrical fixtures, wirings, etc.
19. Include all exterior site work except electrical work, asphalt paving and striping.

BID CATEGORY #2

GLASS & GLAZING

The work scope for this Bid Category includes, but is not limited to the work as specified in the R.C. Hendrick Project Manual, the Architect's Technical Specification, the Drawings and any Addenda issued prior to the bid date.

Provide all labor, materials and equipment to satisfy the following Specification Sections and Notes unless otherwise noted.

Division 00 Project Bidding Requirements
Division 01 General Requirements

08 2133 Flush Fiberglass Reinforced Polyester (FRP Doors)
08 4113 Aluminum-Framed Entrances and Storefronts
08 7200 Door Hardware
08 8000 Glazing (Glass)
08 8010 Window Film

Bid Category Notes (Including, but not limited to):

1. Include all door hardware for any doors furnished by this contractor.

BID CATEGORY #3

DRYWALL & ACOUSTICAL

The work scope for this Bid Category includes, but is not limited to the work as specified in the R.C. Hendrick Project Manual, the Architect's Technical Specification, the Drawings and any Addenda issued prior to the bid date.

Provide all labor, materials and equipment to satisfy the following Specification Sections and Notes unless otherwise noted.

Division 00 Project Bidding Requirements
Division 01 General Requirements

09 2513.13 Acrylic Plaster Finish
09 2900 Gypsum Board
09 5123 Acoustical Tile Ceilings

Bid Category Notes (Including, but not limited to):

1. Provide all hoisting, lifting and storage of materials.
2. Caulking as related to this work.

BID CATEGORY #4

FLOORING

The work scope for this Bid Category includes, but is not limited to the work as specified in the R.C. Hendrick Project Manual, the Architect's Technical Specification, the Drawings and any Addenda issued prior to the bid date.

Provide all labor, materials and equipment to satisfy the following Specification Sections and Notes unless otherwise noted.

Division 00 Project Bidding Requirements

Division 01 General Requirements

09 6519 Resilient Flooring

09 6816 Sheet Carpeting and Tile Carpeting

Bid Category Notes (Including, but not limited to):

1. Furnish and install all transition strips between different floor and wall types.
2. Provide caulking or control joints as necessary. Verify with manufacturer and architect. Furnish and install all transition strips, sheet vinyl caps, etc. between different floor types.
3. Include floor patching and feathering as required at all areas where existing floors are removed.
4. Furnish and install vinyl base and molding accessories in all areas to receive resilient floor tile and carpet and as shown or specified.
5. Protect floors upon completion.
6. Include moisture testing per specifications and manufacturer's requirements.

BID CATEGORY #5

PAINTING

The work scope for this Bid Category includes, but is not limited to the work as specified in the R.C. Hendrick Project Manual, the Architect's Technical Specification, the Drawings and any Addenda issued prior to the bid date.

Provide all labor, materials and equipment to satisfy the following Specification Sections and Notes unless otherwise noted.

Division 00 Project Bidding Requirements

Division 01 General Requirements

09 9100 Painting

Bid Category Notes (Including, but not limited to):

1. Include painting of exposed steel, mechanical, electrical, etc. as shown or specified.
2. Include all interior and exterior painting as shown or specified.
3. Include "minor" scraping of masonry walls.
4. Provide and install filler at nail holes of installed window trims on interior finished doors if required.
5. Provide finishing of all wood trim and millwork not furnished pre-finished.
6. Protect all surfaces not requiring painting.
7. Install joint sealants around door frames in acoustical walls as needed.
8. Review mechanical and electrical drawings for items requiring painting.

BID CATEGORY #6

MECHANICAL

The work scope for this Bid Category includes, but is not limited to the work as specified in the R.C. Hendrick Project Manual, the Architect's Technical Specification, the Drawings and any Addenda issued prior to the bid date.

Provide all labor, materials and equipment to satisfy the following Specification Sections and Notes unless otherwise noted.

Division 00	Project Bidding Requirements
Division 01	General Requirements
22 0513	Common Motor Requirements for Plumbing Equipment
22 0516	Expansion Fittings and Loops for Plumbing Piping
22 0517	Sleeves and Sleeve Seals for Piping
22 0518	Escutcheons for Plumbing Piping
22 0519	Meters and Gages for Plumbing Piping
22 0523.12	Ball Valves for Plumbing Piping
22 0523.13	Butterfly Valves for Plumbing Piping
22 0523.14	Check Valves for Plumbing Piping
22 0529	Hangers and Supports for Plumbing Piping and Equipment
22 0553	Identification for Plumbing Piping and Equipment
22 0593	Testing, Adjusting and Balancing for Plumbing
22 0719	Plumbing Piping Insulation
22 1116	Domestic Water Piping
22 1119	Domestic Water Piping Specialties
22 1316	Sanitary Waste and Vent Piping
22 1319	Sanitary Waste Piping Specialties
22 1319.13	Sanitary Drains
22 3200	Domestic Water Filtration Equipment
22 3400	Fuel Fired Domestic Water heaters
22 4000	Plumbing Fixtures
23 0013	Common Motor Requirements for HVAC Equipment
23 0517	Sleeves and Sleeve Seals for HVAC Piping
23 0518	Escutcheons for HVAC Piping
23 0519	Meters and Gauges for HVAC Piping
23 0523.12	Ball Valves for HVAC Piping
23 0523.13	Butterfly Valves for HVAC Piping
23 0523.14	Check Valves for HVAC Piping
23 0529	Hangers and Supports for HVAC Piping and Equipment
23 0553	Identification for HVAC Piping and Equipment
23 0593	Testing, Adjusting and Balancing for HVAC
23 0713	Duct Insulation
23 0716	HVAC Equipment Insulation
23 0719	HVAC Piping Insulation

23 0800	Commissioning of HVAC
23 0925	Direct Digital Control (DDC) Systems for HVAC
23 1123	Natural Gas Piping
23 2113	Hydronic Piping
23 2116	Hydronic Piping Specialties
23 2300	Refrigerant Piping
23 2500	HVAC Water Treatment
23 3113	Metal Ducts
23 3300	Air Duct Accessories
23 3446	Flexible Ducts
23 3423	HVAC Power Ventilators
23 3713.13	Air Diffusers, Registers and Grilles
23 7416.11	Packaged, Small Capacity Rooftop Air Conditioning Units
23 7416.13	Packaged, Large Capacity Rooftop Air Conditioning Units
23 8126	Split-System Air Conditioners
23 8219	Fan Coil Units
23 8223	Unit Ventilators

Bid Category Notes (Including, but not limited to):

1. Provide all mechanical demolition as show or called for on plans. Contractor shall consult with CM for equipment/materials to be turned over to owner. Provide dumpster as required for demo items.
2. Furnish and install all sleeves in walls, floors, roofs and ceilings that may be required for this Bid Category.
3. Pay for all permits, fees, inspections and approvals required by governing jurisdictions. This will include coordination between state and local agencies to ensure code compliance and for securing approval for the facility.
4. This contractor shall be responsible for all fire wall penetrations required for this work and proper sealing of the same.
5. Coordinate delivery and storage of material with the Construction Manager prior to delivery. Remove all cardboard from site and recycle or discard.
6. Furnish and install caulking and sealers around the plumbing fixtures and pipe.
7. Provide and install pipe identification and other required identification or signage related to this Bid Category.
8. **This Bid Category is also responsible for Mechanical Requirements as shown on the Architectural and Electrical Drawings.**
9. Furnish and install all louvers related to this bid category as shown or specified.
10. Provide cleaning and testing of all piping systems for the work within this category.
11. Provide a copy of all mechanical and plumbing permits to the CM as soon as applied for and received.
12. Provide and install all fireproofing of penetrations, piping, ductwork, etc. which are installed in concrete floors, masonry or drywall walls.
13. All fire caulking as it pertains to mechanical work.

BID CATEGORY #7

ELECTRICAL

The work scope for this Bid Category includes, but is not limited to the work as specified in the R.C. Hendrick Project Manual, the Architect's Technical Specification, the Drawings and any Addenda issued prior to the bid date.

Provide all labor, materials and equipment to satisfy the following Specification Sections and Notes unless otherwise noted.

Division 00	Project Bidding Requirements
Division 01	General Requirements
26 0010	Supplemental Requirements for Electrical
26 0519	Low-Voltage Electrical Power Conductors and Cables
26 0523	Control Voltage Electrical Power Cables
26 0526	Grounding and Bonding for Electrical Systems
26 0529	Hangars and Supports for Electrical Systems
26 0533.13	Conduit
26 0533.16	Boxes
26 0533.23	Surface Raceways for Electrical Systems
26 0544	Sleeves and Sleeve Seals for Electrical Raceways and Cabling
26 0553	Identification for Electrical Systems
26 0800	Commissioning of Electrical Systems
26 0923	Lighting Control Devices
26 2416	Panelboards
26 2726	Wiring Devices
26 2816	Enclosed Switches and Circuit Breakers
26 2923	Variable Frequency Motor Controllers
26 4313	Surge Protective Devices for Low Voltage Power Circuits
26 5119	LED Interior Lighting

Bid Category Notes (Including, but not limited to):

1. Provide all demolition of electrical items as shown or specified. Contractor shall consult with CM for equipment/materials to be turned over to owner. Provide dumpster as required for demo items.
2. Provide and install temporary lighting as required by MIOSHA and as needed to ensure sufficient lighting for construction. **Temporary lighting shall be switched and must be instant on/off type.**
3. This contractor shall be responsible for all fire wall penetrations required for this work and proper sealing of the same.
4. **This Bid Category is also responsible for Electrical Requirements as shown on the Architectural, Civil and Mechanical Drawings. Review all drawings prior to bidding.**
5. Coordinate delivery and storage of material with the Construction Manager **prior** to delivery.

6. Pay for all permits, fees, inspections and approvals required by governing jurisdictions. This will include coordination between state and local agencies to ensure code compliance and for securing approval of the facility.
7. Include all cutting and coring of walls, floors ceilings, etc. as required for the installation of this work.
8. Provide a complete electrical system including, but not limited to; all wiring, panelboards, fixtures, fire alarm systems, lighting controls, sound systems, etc.
9. Final cleaning of fixtures and equipment is by others. This contractor to protect fixtures from damage during storage.
10. All inspection reports from local, state and federal inspection agencies will be provided to the Construction Manager.
11. Include all connections of power wiring to devices, including equipment, motors, heaters, automatic door openers and strikes (review Architectural and Mechanical Drawings for items not shown on Electrical Drawings).
12. Provide and install all low voltage raceways, and power for temperature controls as shown or specified.
13. All fire caulking as it pertains to electrical work.

BID CATEGORY #8

ASPHALT PAVING / MARKINGS

The work scope for this Bid Category includes, but is not limited to the work as specified in the R.C. Hendrick Project Manual, the Architect's Technical Specification, the Drawings and any Addenda issued prior to the bid date.

Provide all labor, materials and equipment to satisfy the following Specification Sections and Notes unless otherwise noted.

Division 00 Project Bidding Requirements
Division 01 General Requirements

32 1216 Hot Mix Asphalt Paving
32 1415 Pavement Markings

Bid Category Notes (Including, but not limited to):

1. Fine grade aggregate base prior to installation of base course.
2. Include all pavement markings.
3. Clean up loose asphalt particles upon completion of each course of asphalt placement.
4. Include all barricading and flagging as necessary.
5. Provide and install parking lot signage and concrete bumpers if shown on drawings.

Work by Others:

1. Additional material needed for fine grading of new asphalt areas by Bid Category #1 - General Trades.

END OF SECTION 00 2400

SECTION 00 3100

INFORMATION AVAILABLE TO BIDDERS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SOIL EVALUATION – Was NOT performed on this project.

- 1.2.2 This report identifies properties of below grade conditions and offers recommendations for the design of foundations, prepared primarily for the use of the designers.
- 1.2.3 The recommendations described shall not be construed as a requirement of this Contract, unless specifically referenced in the Contract Documents.
- 1.2.4 This report, by its nature, cannot reveal all conditions that exist on the site. Should subsurface conditions be found to vary substantially from this report, changes in the design and construction of foundations will be made, with resulting additions or deductions to the Contract Sum accruing to the Owner.

END OF SECTION 00 3100

SECTION 00 3113

MILESTONE SCHEDULE

All bid categories shall participate in coordinating the construction schedule with both the Construction Manager and other trade contractors to meet the Milestone Dates indicated in the bidding documents. The dates either listed below or on the attached schedule are not intended to be a complete breakdown of the work; rather it is a list of milestone dates that must be met by all trade contractors to ensure the project is completed on time. Trade contractors shall include all costs they feel are necessary to complete the work by these milestone dates and include all overtime and shift work even if not called for in the scope description. All trade contractors shall endeavor to improve upon the milestone dates if possible.

If a bidder feels that the dates given are unreasonable or they are impossible to meet, they are to notify R.C. Hendrick by email prior to the bid date. R.C. Hendrick will review the request and, if necessary, issue an addendum modifying the Milestone Schedule. If no objections are heard, it will be understood that the Milestone Schedule can be met by all trade contractors.

Meeting the schedule is an imperative part of the project to all parties, therefore R.C. Hendrick reserves the right to take or recommend the following action(s) if the milestone dates are in danger of, or not, being met.

1. R.C. Hendrick will request a written recovery schedule from the trade contractor(s).
2. The trade contractor(s) will be directed to increase crew size or add equipment on site.
3. The trade contractor(s) will be directed to add a second shift or work overtime.
4. If the above measures do not fulfill the requirements of the Milestone Schedule, the trade contractor(s) may be supplemented with additional personnel or equipment by others, or any necessary action required.

All costs associated with the above measures will be the responsibility of the trade contractor(s) involved, to the extent that it was delayed by others. If a trade contractor is found to have delayed the work, they will be responsible for any additional costs necessary to get the project back on schedule.

Milestone Schedule: Project starts no later than June 5, 2026. Some items may be able to start earlier.

END OF SECTION 00 3113

SECTION 00 3146

PERMITS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 PERMITS AND FEES

- 1.2.1 The Owner, through the Construction Manager shall pay for and furnish the general Building Permit.
- 1.2.2 Other than the Building Permit, each Trade Contractor is required to secure and pay for all permits and fees necessary for your scope of work.
- 1.2.3 The Construction Manager shall schedule the General Building Inspection. Trade Contractors will be notified verbally or in writing of the date of inspection(s).
- 1.2.4 It is the responsibility of each Trade Contractor to schedule appropriate inspections of the work by the authorized inspector of the permit you secured. The Construction Manager is to be notified immediately of any scheduled inspection(s).
- 1.2.5 This project is under the following jurisdictions:

Building	State of Michigan
Life Safety	Bureau of Fire Services
Mechanical	State of Michigan
Plumbing	State of Michigan
Electrical	State of Michigan
Elevator	State of Michigan
Right of Way	Local Authority
Demolition	State of Michigan

END OF SECTION 00 3146

SECTION 00 4000

BID FORM

TO: Michael McGough - Superintendent
Chesaning Union Schools
850 N. Fourth St.
Chesaning, MI 48616

RE: Chesaning Union Schools
Big Rock Elementary & High School Remodeling

Having carefully reviewed the bidding documents described in Section 001000 and understanding the scope of work involved in the proposed Bid Category and those that interface with it, we hereby propose to furnish labor, materials, tools, equipment, supervision, insurance and services required for the completion of all work required for the Bid Category indicated in accordance with the Bid Category Description and the Contract Documents prepared by the Architect and Construction Manager.

EACH BID CATEGORY SHALL INCLUDE ALL WORK FOR BIG ROCK ELEMENTARY AND CHESANING UNION HIGH SCHOOL.

BID CATEGORY #: _____ **DESCRIPTION:** _____

BIDDERS NAME: _____

BASE BID:

Total Base Sum of _____

_____ Dollars \$ _____

(OPTIONAL) COMBINED BID FOR CATEGORIES _____ **:**

Total Combined Sum of _____

_____ Dollars \$ _____

ADDENDA:

And having received and examined the following Addenda: (include date for acknowledgement)

Addendum Number _____, dated _____, 2025
Addendum Number _____, dated _____, 2025
Addendum Number _____, dated _____, 2025
Addendum Number _____, dated _____, 2025

ALTERNATES:

Bidders shall indicate on the Bid Form if the Alternate is an ADD or DEDUCT to the Base Bid and indicate the costs associated. See Specification Section 01 2300 for the full descriptions. If the Alternate does not affect your base bid you must circle NO CHANGE.

ADD \$ _____

DEDUCT \$ _____

NO CHANGE

UNIT PRICES:

Unit prices shall include all necessary material plus costs for delivery, installation, insurance, bonds, applicable taxes, overhead and profit. See the drawings and Section 01 2200 for the full description.

VOLUNTARY ALTERNATES / SUBSTITUTIONS:

Bidder is cautioned to bid on the "Standards" specified. The following substitutions from the "Standards" specified are listed herein for consideration, and if accepted, the contract sum may be adjusted in accordance with the following:

_____ Add / Deduct \$ _____
_____ Add / Deduct \$ _____

EXPERIENCE MODIFICATION RATE (EMR):

List the EMR for your firm as described by your insurance carrier for the past three (3) years.

2024 _____ 2023 _____ 2022 _____

IRAN BUSINESS RELATIONSHIP AFFIDAVIT:

Pursuant to the Michigan Iran Economic Sanctions Act, 2012 P.A. 517, by submitting a bid, proposal or response, Respondent certifies, under civil penalty for false certification, that it is fully eligible to do so under law and that it is not an "Iran Linked Business," as that term is defined in the Act.

WORK TIME:

The undersigned hereby agrees to complete the entire work per the Milestone Schedule.

TIME AND MATERIAL RATES: (REQUIRED)

Labor rates listed below include the following: Cost of labor including Michigan Single Business Tax, Social Security and Medicare, Federal and State Unemployment tax, and Fringe Benefits Under Collective Bargaining Agreements, and Worker's Compensation Insurance. The rates listed below do not include overhead and/or profit. These rates are only for additions and/or deletions to the contract that could not have been anticipated at the time of the bid.

Trade	Straight Time	Shift Time	1 ½ Time	Double Time

CONTRACT:

The undersigned agrees that the above Base Bid Prices shall hold for 60 days and Alternate Prices for 120 days after receipt of proposals, to accept provisions of "Instructions to Bidders."

SUBMITTED BY:

Firm Name: _____

Address: _____

City/St/Zip: _____

Email Address: _____

Signed: _____ Title: _____

Typed Name: _____ Date: _____

Phone: _____ Fax: _____

If Bidder is a Corporation, indicate State of Incorporation: _____

If a Partnership, give full names of all Partners: _____

Please submit (3) copies and retain (1) copy for your records.

END OF SECTION 00 4000

SECTION 00 4100

FAMILIAL DISCLOSURE STATEMENT

All bidders must complete the following familial disclosure form in compliance with MCL 380.1267 (Public Act 232 of 2004) and attach this information to the bid.

By the attached sworn and notarized statement we are disclosing the following familial relationship(s) that exists between the owner or any employee of the bidder and any member of the board, intermediate school board, or board of directors or the superintendent of the school district, intermediate superintendent of the intermediate school district, or chief executive officer of the public school academy. The Owner shall not accept a bid that does not include this sworn and notarized disclosure statement.

Disclose any familial relationship and complete the form below in its entirety:

The following are familial relationships as described above (provide employee name, family contact name, family contact position, and familial relationship or NONE.)

Signature(s): _____ Title: _____

Name of firm: _____

STATE OF MICHIGAN)
) SS
COUNTY OF)

On this _____ day of _____, 20____, before me a Notary Public in and for said county, personally appeared _____, agent of the said firm _____ and who acknowledged the same to be his free act and deed as such agent.

Notary Public

END OF SECTION 00 4100

SECTION 00 5000

CONTRACT / AGREEMENT FORM

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 CONTRACT / AGREEMENT FORM

- 1.2.1 Contracts will be direct between the Owner and the Trade Contractor.
- 1.2.2 The form of agreement will be the Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition, AIA Document A132-2009.
- 1.2.3 A sample copy of the agreement form can be viewed or downloaded at:
www.rchendrick.com. Click on "Plan Room" and then click on the link "Specification Forms."

END OF SECTION 00 5000

SECTION 00 6100

BONDS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 BID BONDS

- 1.2.1 Each bid which exceeds \$50,000 must be submitted with an attached certified check, money order, or a bid bond from a surety company approved to do business in the State of Michigan, payable to the Owner in an amount not less than 5% of the base bid sum of the work.

1.3 PERFORMANCE AND PAYMENT BONDS

- 1.3.1 Prior to the execution of the contract, furnish bonds covering the faithful performance of the contract and the payment of all obligations arising there under. Include cost of bonds in the base bid. The bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of their power of attorney.

END OF SECTION 00 6100

SECTION 00 7200

GENERAL CONDITIONS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 GENERAL CONDITIONS

- 1.2.1 The General Conditions which shall become a part of the agreement will be the General Conditions of the Contract for Construction, Construction Manager as Adviser Edition, AIA Document A232-2009.
- 1.2.2 A sample copy of the General Conditions can be viewed or downloaded at: www.rchendrick.com. Click on "Plan Room" and then click on the link "Specification Forms."

END OF SECTION 00 7200

SECTION 00 7300

SUPPLEMENTARY CONDITIONS

GENERAL CONDITIONS

1. The General Conditions of this contract are the American Institute of Architects Standard Document A232-2009, titled "General Conditions of the Contract for Construction, Construction Manager as Adviser Edition." This document is hereby made part of the Contract Documents.
2. The following supplements modify AIA Document A232-2009, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition. Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

ARTICLE 2 - OWNER

1. Delete subparagraph 2.2.5 and substitute:
2.2.5 - The Contractor will be furnished, subject to a deposit, all copies of drawings and specifications reasonably necessary for execution of the work as determined by the Construction Manager.

ARTICLE 3 - CONTRACTOR

1. Add Section 3.4.2.1 to Section 3.4.2:
3.4.2.1 After the Contract has been executed, the Owner, Construction Manager and Architect will consider requests for the substitution of products in place of those specified only under the conditions set forth in the General Requirements (Division 1 of the Specifications).
By making requests for substitutions, the Contractor:
 - .1 represents that it has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;
 - .2 represents that it will provide the same warranty for the substitution as it would have provided for the product specified;
 - .3 certifies that the cost data presented is complete and includes all related costs for the substituted product and for Work that must be changed as a result of the substitution, except for the Architect's redesign costs, and waives all claims for additional costs related to the substitution that subsequently become apparent; and
 - .4 shall coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

2. Delete subparagraph 3.4.3 and substitute:
3.4.3 The Contractor shall at all times enforce strict discipline and good order among the Contractor's employees and any subcontractor employed by the contractor and shall not employ on the work any unfit person or anyone not skilled in the task assigned to them.

ARTICLE 7 - CHANGES IN THE WORK

1. Add Subparagraph 7.1.4
7.1.4 The maximum allowable markup on Changes in the Work shall be eleven percent (15%) which includes overhead, profit, estimating expenses, other office expense, bond and insurance costs."
2. RE: Subparagraph 7.3.7
Delete the words, "the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount." and insert the words, "Section 7.1.4."

ARTICLE 8 - TIME

1. Add subparagraph 8.3.4
8.3.4 Claims for Delay: In the event the contractor is delayed in completing the work by the Owner for any reason, whether intentional or otherwise, and the delay does not preclude the contractor from completing the work within the time period specified in the contract agreement, the contractor shall be entitled to no remedy for such delay.

ARTICLE 9 - PAYMENTS AND COMPLETION

1. Add subparagraph 9.3.1.3
9.3.1.3 Up to time the work is substantially complete, the owner will make monthly payments to the contractor, based on the schedule of values of 90% of the value of labor and materials incorporated in the work and of 90% of all tangible materials stored at the site during that month. The Owner will have retained five percent (5%) of the total contract price for "Closeout Materials" and five (5%) of the total contract price for "Punch List Completion". The Contractor may request payment of the retained percentages upon completion of that portion of their Work.
2. Add subparagraph 9.3.1.4
9.3.1.4 Deliver estimates to the Construction Manager for approval as agreed upon. The form of application for payment shall be AIA Document G732-2009, notarized by Contractor and supported by AIA Document G703 – Continuation Sheet.
3. Add clause .8 to subparagraph 9.5.1
.8 Unsatisfactory clean-up in accordance with subparagraph 3.15.

ARTICLE 11 - INSURANCE

1. Add the following Sections 11.1.2.1 through 11.1.2.4 to Section 11.1.2:
11.1.2.1 The limits for Worker's Compensation and Employers' Liability insurance shall meet statutory limits mandated by State and Federal laws. If (1) limits in excess of those required by statute are to be provided, (2) the employer is not statutorily bound to obtain such insurance coverage, or (3) additional coverages are required, additional coverages and limits for such insurance shall be as follows:

WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE:

Worker's Compensation:	State of Michigan Statutory Limits
Employer's Liability:	\$500,000 - each accident \$500,000 - disease (each employee) \$500,000 - disease (policy limit)

11.1.2.2 The limits for Commercial General Liability insurance including coverage for Premises-Operations, Independent Contractors' Protective, Products-Completed Operations, Contractual Liability, Personal Injury and Broad Form Property Damage (including coverage for Explosion, Collapse, and Underground Hazards) shall be as follows:

COMMERCIAL GENERAL LIABILITY INSURANCE:

Bodily Injury	\$1,000,000 - each occurrence \$2,000,000 - aggregate
Property Damage	\$1,000,000 - each occurrence \$2,000,000 - aggregate
Fire Damage (any one fire)	\$100,000
Medical Expense (any one person)	\$5,000

Notes:

- (1) Products-Completed Operations Insurance shall be maintained for a minimum period of one (1) year after final payment.
- (2) The Owner, Architect and Construction Manager shall be listed as additional insured. The Owner shall be the certificate holder.

11.1.2.3 Automobile Liability insurance (owned, non-owned and hired vehicles) for bodily injury and property damage:

AUTOMOBILE LIABILITY INSURANCE:

Bodily Injury	\$1,000,000
Property Damage	\$1,000,000

11.1.2.4 Umbrella or Excess Liability Coverage:

UMBRELLA / EXCESS LIABILITY INSURANCE:

Umbrella/Excess Insurance	\$2,000,000 - each occurrence
	\$2,000,000 - aggregate

2. Add Subparagraph 11.3.11
11.3.11 The provisions of this paragraph 11.3 shall not operate to relieve the Contractor of responsibility for loss or damage to the Contractor's own or rented property or property of Contractor's employees of whatever kind or nature, including but not limited to: tools, equipment, forms, scaffolding and temporary structures, including their contents. The Owner shall in no event be liable for loss or damage to the aforementioned items or other property of the contractor that is not included in the permanent construction.
3. Delete Subparagraph 11.3.7 Waivers of Subrogation

ARTICLE 13 - MISCELLANEOUS PROVISIONS

1. Delete subparagraph 13.6 - Interest in its entirety.

END OF SECTION 00 7300

SECTION 00 7316

INSURANCE REQUIREMENTS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 INSURANCE REQUIREMENTS

- 1.2.1 Each contractor shall provide, to the Owner, through the Construction Manager, a certificate of insurance indicating that all required insurance coverage is in effect. This certificate shall be provided before any Work begins.
- 1.2.2 Limits of required insurance are listed in the Supplementary Conditions, Section 00 7300 – Article 11. Contractors are to provide at least the limits stated in that section.
- 1.2.3 The Owner, Architect, and Construction Manager shall be listed as “additional insured” on the insurance certificate.
- 1.2.4 A sample Acord Insurance Certificate with instructions is attached for your use.

1.3 INSURANCE FOR STORED MATERIAL

- 1.3.1 If a Contractor wishes to be paid for stored material that is not presently on the jobsite, they will be required to furnish photographic evidence of the material as well as an insurance certificate for the material.

1.4 BUILDER’S RISK INSURANCE

- 1.4.1 Per the General Conditions, the Owner shall secure and pay for Builder’s Risk Insurance for the Project.

END OF SECTION 00 7316

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The name and address of the Insurance Company goes here		CONTACT NAME: PHONE (A/C, No, Ext): E-MAIL ADDRESS: PRODUCER CUSTOMER ID #:		FAX (A/C, No):
INSURED The name and address of the Prime Contractor goes here		INSURER(S) AFFORDING COVERAGE INSURER A : INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :		NAIC #

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC			Policy Number Must Be Listed Here	Start/End dates of Policy must be listed here		EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> ALL OWNED AUTOS SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS NON-OWNED AUTOS			Policy Number Must Be Listed Here	Start/End dates of Policy must be listed here		COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ \$
	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB DEDUCTIBLE \$ RETENTION \$		<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE	Policy Number Must Be Listed Here	Start/End dates of Policy must be listed here		EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000 \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y / N <input type="checkbox"/> N/A	Policy Number Must Be Listed Here	Start/End dates of Policy must be listed here	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER	E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

This section does not need to be filled out unless a specific coverage is required

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

List the Owner, Architect and Construction Manager as Additional Insured

CERTIFICATE HOLDER The Owner shall be listed here as the Certificate Holder	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Signature of your authorized insurance agent
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SECTION 00 8100

SAFETY REQUIREMENTS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SAFETY NARRATIVE

- 1.2.1 Safety does not start in the field; it takes planning and forethought before field operations even begin. Contractors will require a clear vision of what work activities their respective companies will perform and how to provide a safe work environment for all persons on the site. Each contractor should do a Job Hazard Analysis to determine the safety requirements for their job functions before finalizing their bid. R.C. Hendrick & Son is aware that the success of a safety and health program is contingent and dependent on support and involvement from all employees of the company and all trade contractors. For any construction project to be considered a success, it must be a safe project. Any unsafe acts shall be dealt with and corrected immediately.

R.C. Hendrick reserves the right to remove any worker from the site for improper conduct, poor attitude toward safety or not following requirements in this section.

All personnel on site should be looking out for the safety of anyone on site. If you suspect a worker is engaging in a potentially unsafe activity, all workers have the right to ask the individual if the activity meets their company safety plan or MIOSHA standards and should notify R.C. Hendrick for further action.

1.3 SAFETY REQUIREMENTS

- 1.3.1 Before commencing any work, trade contractors are required to provide a copy of their Accident Prevention Plan (Safety Plan), Respirable Silica Program (if it pertains to your work scope), and the Safety Data Sheets (SDS Documents) for all hazardous materials they will be using on site.
- 1.3.2 All Trade Contractors are required to understand and comply with OSHA, MIOSHA as well as any other agency that has jurisdiction over the Project. **In addition, each Trade Contractor shall be responsible for payment of all fines and/or claims levied against the Owner, Architect or CM/Constructor for deficiencies relating to the Work or Conduct of a Trade Contractor.**
- 1.3.3 Trade Contractors shall also be required to comply with the R.C. Hendrick Company Safety Manual. A copy of the safety manual is available for review at:

www.rchendrick.com. Click on “Plan Room” and then click on the link “Specification Forms.”

- 1.3.4 R.C. Hendrick will also create a Site-Specific Safety Manual that is specifically tailored to the Project. Topics in the manual may include Site-Specific Safety Hazards, Emergency Procedures, Nearest Emergency Center, and Important Contact Information. This manual will be completed prior to the start of construction and will be posted at the jobsite and can be made available electronically if requested.
- 1.3.5 Operate machinery and equipment only if properly trained, qualified and authorized to do so.
- 1.3.6 Provide a completed daily inspection report for all rough terrain vehicles, scissor lifts and aerial lifts turned in to the R.C. Hendrick Superintendent.
- 1.3.7 Wear the required personal protective equipment (PPE) for the duties performed.
 - 1.3.7.1 Hard Hat, Safety Glasses, Construction Level Work Boots, High-Visibility Clothing (Outer Layer)
- 1.3.8 Keep work areas safe by exhibiting good housekeeping skills.
- 1.3.9 Report all unsafe work conditions immediately to your foreman, safety representative or the R.C. Hendrick Superintendent.
- 1.3.10 Before starting a work activity, make sure you are ready to perform your job tasks safely, no “short-cuts.” Use the right tool for the task.
- 1.3.11 Do not undertake any activities that would put yourself or anyone else in harm or danger.
- 1.3.12 If a tool or piece of equipment is malfunctioning or shows a defect, remove it from service immediately.
- 1.3.13 Report any injury, illness, property/equipment damage, or near-misses immediately to your foreman, supervisor, or R.C. Hendrick Superintendent.
- 1.3.14 The use of tobacco products, drugs or alcohol is strictly prohibited.
- 1.3.15 Weekly “tool-box-talks” are required and a signed copy should be turned into the R.C. Hendrick Superintendent.
- 1.3.16 R.C. Hendrick’s safety officer or regulatory agencies may periodically inspect the jobsite for safety violations and will report the findings to the project superintendent.

END OF SECTION 00 8100

SECTION 00 9100

PREVAILING WAGE RATES

1. GENERAL

1.1 RELATED DOCUMENTS

- 1.1.1 Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- 1.1.2 The State of Michigan Prevailing Wage Rates applicable to this Project are attached to this Section.
- 1.1.3 All contracts for this project are subject to all requirements of Michigan Public Act No. 10 of 2023 dated March 23, 2023 and can be viewed in full at this link: <https://www.legislature.mi.gov/documents/2023-2024/publicact/pdf/2023-PA-0010.pdf>

1.2 TERMS RELATED TO THE PAYMENT OF PREVAILING WAGES

- 1.2.1 The rates of wages and fringe benefits to be paid to each class of mechanics by the bidder and all of its subcontractors, shall be not less than the wage and fringe benefit rates prevailing in the locality in which the work is to be performed. Contracts on state projects which contain provisions requiring the payment of prevailing wages as determined by the United States Secretary of Labor pursuant to 40 USC 3141 to 3148 or which contain minimum wage schedules which are the same as prevailing wages in the locality as determined by collective bargaining agreements or understandings between bona fide organizations of construction mechanics and their employers are exempt from the provisions of this act.
- 1.2.2 A contractor or subcontractor shall not discharge, discipline, retaliate against, or otherwise discriminate against a construction mechanic, or threaten to do any of these things, because the construction mechanic reported or was about to report a violation or suspected violation of this act.
- 1.2.3 Construction mechanics are intended beneficiaries of the contractual prevailing wage, fringe benefit, and nondiscrimination nonretaliation requirements and further providing that any construction mechanic aggrieved by the failure of a contractor or subcontractor to pay prevailing wages or benefits as specified in the contract, or by a violation of section 7 of Act 10, in addition to any other remedies provided in this act or by law, may bring an action in a court of competent jurisdiction against the contractor or subcontractor for damages or injunctive relief and may be awarded reinstatement or other appropriate relief, and all damages sustained, together with actual costs and attorney fees at trial and on appeal.

1.3 OWNER / CONSTRUCTION MANAGER RESPONSIBILITIES

- 1.3.1 The Owner or Contracting Agent shall request an official rate schedule by emailing a request to WHPWrequest@michigan.gov. The contracting agent name, email address, county and a brief project description should be included in the email. If you need roadbuilders rates in addition to commercial rates, please request both rate schedules. These rates shall be provided to the Construction Manager for inclusion in the bidding documents.
- 1.3.2 Issue contracts within ninety (90) days from the date of issuance of rates.
- 1.3.3 Post, in a conspicuous place on the construction site, a copy of all prevailing wage and fringe benefit rates prescribed in contract.
- 1.3.4 Review and monitor prevailing wages.

1.4 CONTRACTOR RESPONSIBILITIES

- 1.4.1 Post, in a conspicuous place on the construction site, a copy of all prevailing wage and fringe benefit rates prescribed in contract.
- 1.4.2 Contractors and their Subcontractors must keep accurate WEEKLY certified payroll records. **Upon request, these records must be made available to the Construction Manager or Contracting Agent (Owner) within 24 hours of the request.**
- 1.4.3 Contractors, and subcontractors shall maintain certified payroll records and other records required under this act for a minimum of 3 years. Failure to maintain records may result in application of the applicable civil penalties provided for under this act.
- 1.4.4 Contractors and Subcontractors are separately Liable for payment of prevailing wage rates to their employees.
- 1.4.5 Contractors are responsible for advising all subcontractors of the requirement to pay prevailing wage prior to commencement of work.
- 1.4.6 Contractor is secondarily liable for payment of prevailing rates that are not paid by a subcontractor.
- 1.4.7 The Contractor agrees that by entering into a contract with the Owner or Construction Manager they shall hold the Construction Manager harmless from any civil fines resulting from violations of Act 10 by themselves or their subcontractors and that all fines assessed to the Construction Manager shall be paid for by the Contractor.

END OF SECTION 00 9100

SECTION 01 1100

SUMMARY

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section includes the following:

- A. Work covered by the Contract Documents.
- B. Type of the Contract.
- C. Owner-furnished products.
- D. Use of premises.
- E. Owner's occupancy requirements.
- F. Work restrictions.
- G. Specification formats and conventions.

- 1.2.2 Related Sections include the following:

1.3 TYPE OF CONTRACT

- 1.3.1 Project will be constructed under multiple prime contracts direct with the Owner.

1.4 OWNER-FURNISHED PRODUCTS

- 1.4.1 Owner will furnish products indicated. The Work includes providing support systems to receive Owner's equipment.

1.5 USE OF PREMISES

- 1.5.1 General: Each Contractor shall have limited use of premises for construction operations as indicated on Drawings by the Contract limits.
- 1.5.2 Use of Site: Limit use of premises to areas as directed by Construction Manager. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - A. Owner Occupancy: Allow for Owner occupancy of Project site
 - B. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

1. Schedule deliveries to minimize use of driveways and entrances.
2. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.5.3 Use of Existing Building: Maintain existing building in a weather-tight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.

1.6 OWNER'S OCCUPANCY REQUIREMENTS

1.6.1 Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits, unless otherwise indicated.

- A. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
- B. Provide not less than five (5) calendar days' notice to Owner of activities that will affect Owner's operations.

1.7 WORK RESTRICTIONS

1.7.1 Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

- A. Notify **Owner** not less than ten days in advance of proposed utility interruptions.
- B. Do not proceed with utility interruptions without **Owner's** written permission.

1.8 SPECIFICATION FORMATS AND CONVENTIONS

1.8.1 Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI/CSC's "Master Format" numbering system.

- A. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
- B. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.

1.8.2 Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

- A. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
- B. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - 1. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

2. PRODUCTS (Not Used)

3. EXECUTION (Not Used)

END OF SECTION 01 1100

SECTION 01 2100

ALLOWANCES

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section includes administrative and procedural requirements governing allowances.

- A. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.

- 1.2.2 Types of allowances include the following:

- A. Lump-sum allowances.
 - B. Contingency allowances.
 - C. Testing and inspecting allowances.

- 1.2.3 Related Sections include, but not limited to the following:

- A. Division 01 2600 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders for changes.
 - B. Division 01 4000 Section "Quality Requirements" for procedures governing the use of allowances for testing and inspecting.
 - C. Divisions 02 0000 Sections through 33 0000 Sections for items of Work covered by allowances.

1.3 SELECTION AND PURCHASE

- 1.3.1 At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- 1.3.2 At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- 1.3.3 Purchase products and systems selected by Architect from the designated supplier.

1.4 SUBMITTALS

- 1.4.1 Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
- 1.4.2 Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- 1.4.3 Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

- 1.5.1 Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 LUMP-SUM ALLOWANCES

- 1.6.1 Allowance shall include cost to Contractor of specific products and materials ordered by Owner under allowance and shall include taxes, freight, and delivery to Project site.
- 1.6.2 Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner under allowance shall be included as part of the Contract Sum and not part of the allowance.

1.7 CONTINGENCY ALLOWANCES

- 1.7.1 Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- 1.7.2 Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.
- 1.7.3 Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.
- 1.7.4 At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.8 TESTING AND INSPECTING ALLOWANCES

- 1.8.1 Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.

- 1.8.2 The allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.
- 1.8.3 Costs of services not required by the Contract Documents are not included in the allowance.
- 1.8.4 At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

1.9 UNUSED MATERIALS

- 1.9.1 Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - A. If requested by Architect, prepare unused material for storage by Owner when it is not economically practical to return the material for credit. If directed by Architect, deliver unused material to Owner's storage space. Otherwise, disposal of unused material is Contractor's responsibility.

PART 3 EXECUTION

3.1 EXAMINATION

- 3.1.1 Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- 3.2.1 Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- 3.3.1 Refer to Bid Category Notes for allowances to be included in your Bid.

END OF SECTION 01 2100

SECTION 01 2200

UNIT PRICES

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 DEFINITION

- A. A Unit price is stated on the Bid Form as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.3 UNIT PRICES

- A. Unit prices include all necessary material plus cost for delivery, installation, insurance, applicable taxes, overhead and profit.
- B. Refer to individual specification sections for work that requires establishment of Unit Prices. Methods of measurement and payment are specified in those sections.
- C. The Owner or Construction Manager reserve the right to reject contractor's measurement of work-in-place that involves the use of established unit prices and to have this work measured, at the Owner's expense, by an independent firm acceptable to contractor.
- D. Additional Unit Prices may be required following the submission of bids.

PART 3 EXECUTION

3.1 SCHEDULE OF UNIT PRICES

None.

END OF SECTION 01 2200

SECTION 01 2300

ALTERNATES

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section includes administrative and procedural requirements for alternates as proposed by the Architect.

- A. **Voluntary Alternates or Substitutions proposed by Bidders will not form the Base Bid Proposal Price.**

1.3 DEFINITIONS

- 1.3.1 Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

- A. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

- 1.3.2 Voluntary Alternates: Bidders proposed voluntary alternates and substitutions will not be recognized as part of the Base Bid Price opening. Owner may review voluntary proposals with the successful Bidder.

1.4 PROCEDURES

- 1.4.1 Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

- A. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

- 1.4.2 Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- 1.4.3 Execute accepted alternates under the same conditions as other work of the Contract.
- 1.4.4 Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

3. EXECUTION

3.1 SCHEDULE OF ALTERNATES

None.

END OF SECTION 01 2300

SECTION 01 2600

CONTRACT MODIFICATION PROCEDURES

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This section specifies administrative and procedural requirements for handling and processing contract modifications.

- 1.2.2 Related Sections

- A. Section 013300 – “Submittal Procedures”
 - B. Section 010270 – “Application for Payment”

1.3 MINOR CHANGES IN THE WORK

- 1.3.1 Supplemental instructions authorizing minor changes in the work, not involving an adjustment to the Contract Sum or Contract Time, will be issued by the Construction Manager on AIA form G10/CMA.

1.4 CHANGE ORDER PROPOSAL REQUESTS

- 1.4.1 Owner-Initiated Proposal Requests: Proposed changes in the work that will require adjustment to the Contract Sum or Contract Time will be issued by the Construction Manager, with a detailed description of the proposed change and supplemental or revised drawings and specifications, if necessary.
 - A. These requests will be identified as “BULLETINS.”
 - B. Bulletins issued by the Architect are for information only. Do not consider them as instructions whether to stop work in progress, or to execute the proposed change.
 - C. Unless otherwise indicated in the bulletin, submit to the Construction Manager for Architect and Owner review, the cost necessary to execute the proposed changes. In the proposal:
 - 1. Include a list of quantities of products to be purchased and unit costs, along with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
 - 2. Indicate applicable taxes, delivery charges, equipment rental, and amount of trade discounts.

3. Include a statement indicating the effect of the proposed change on the Contract Time.
4. Indicate Overhead and Profit amounts.

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

- A. Include a statement outlining the reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.
- B. Include a list of quantities of products to be purchased and unit costs along with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
- C. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
- D. Comply with requirements in Section 001000 Part 6.2 "Substitutions" if the proposed change in the Work requires the substitution of one product or system for a product or system specified.

1.4.3 Proposal Request Form: Use AIA Document G709 for Change Order Proposal Requests.

1.5 CONSTRUCTION CHANGE DIRECTIVE

1.5.1 When the Owner and Contractor are not in total agreement on the terms of a Change Order Request, the CM may issue a Construction Change Directive (CCD) on AIA Form G714 instructing the Contractor to proceed with a change in the Work for subsequent inclusion in a Change Order.

- A. The CCD will contain a complete description of the change in the Work and designate the method to be followed to determine change in the Contract Sum or Contract Time.

1.5.2 Documentation: Maintain detailed records on a time and material basis of work required by the CCD.

- A. After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

1.6 CHANGE ORDER PROCEDURES

1.6.1 Upon the Owner's approval of a Change Order Proposal Request, the Construction Manager will issue a Change Order for signatures of the Owner, Architect, CM, and Contractor on AIA Form G732, as provided in the conditions of the Contract.

2. PRODUCTS (Not Applicable)
3. EXECUTION (Not Applicable)

END OF SECTION 01 2600

SECTION 01 2900

PAYMENT APPLICATION PROCEDURES

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 DESCRIPTION

- 1.2.1 Work included: Comply with procedures described in this Section when applying for progress payment and final payment under the Contract.
- 1.2.2 Related Work
 - A. The Contract Sum and the schedule for payments are described in the form of agreement.
 - B. Payments upon Substantial Completion and Completion of the Work are described in the General Conditions and in Section 017000 of these Specifications.

1.3 QUALITY ASSURANCE

- 1.3.1 Prior to start of construction, secure the Construction Manager and Architect/Engineer's approval of the Schedule of Values required to be submitted under Paragraph 9.2 of the General Conditions.
- 1.3.2 During progress of the Work, modify the Schedule of Values as approved by the Construction Manager and Architect/Engineer to reflect changes in the Contract Sum due to Change Orders or other modifications of the Contract.
- 1.3.3 Base requests for payment on the approved Schedule of Values.

1.4 SUBMITTALS

- 1.4.1 Formal submittal unless otherwise directed by the Construction Manager:
 - A. Make formal submittal of request for payment by filling in the agreed data, by typing, on AIA Document G703, "Application and Certificate for Payment, Construction Manager-Advisor Edition," plus Continuation Sheet(s) G703.
 - B. Sign and notarize the Application and Certificate for Payment.
 - C. Submit the original of the Application and Certificate for Payment, plus two identical copies to the Construction Manager. The Application is to be made out to the Owner and mailed/delivered to the Construction Manager.

- D. The CM will review the formal submittal, and when approved, will sign the Application and Certificate for Payment, will forward to the Architect for signature, and will distribute one fully executed copy to:
 - 1. Contractor
 - 2. Owner
 - 3. Construction Manager File
- E. The Owner will, upon approval of the Architect/Engineer, disburse directly to the Contractor in accordance with Article 9 of the agreement between Owner and Contractor.

2. PRODUCTS (Not Applicable)

3. EXECUTION (Not Applicable)

END OF SECTION 01 2900

SECTION 01 2976

SWORN STATEMENTS AND WAIVERS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section includes administrative and procedural requirements for sworn statements, partial waivers and full waivers.
- 1.2.2 Sample Sworn Statement and Waivers can be viewed or downloaded at: www.rchendrick.com. Click on "Plan Room" and then click on the link "Specification Forms."
- 1.2.3 No payment will be made without the proper Sworn Statements and applicable Full or Partial Waivers.

1.3 SWORN STATEMENT

- 1.3.1 A signed and notarized Sworn Statement shall be included with each payment application.
- 1.3.2 Sworn Statement shall include all subcontractors and suppliers. List their work description, total contract amount, amounts paid, amounts owing, any retentions held and balances to complete.

1.4 PARTIAL WAIVER

- 1.4.1 Partial waivers must be provided beginning with the second application for payment. Partial waivers must be provided for every payment listed on the previous month's Sworn Statement.

1.5 FULL WAIVER

- 1.5.1 Before a Trade Contractor can receive final payment, they must submit full waivers from all subcontractors and suppliers.

END OF SECTION 01 2976

SECTION 01 3100

PROJECT MANAGEMENT AND COORDINATION

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:
 - A. General project coordination procedures.
 - B. Administrative and supervisory personnel.
 - C. Coordination Drawings.
 - D. General installation provisions.
 - E. Cleaning and protection.
 - F. Limitations for use of the site.
 - G. Coordination program.
- 1.2.2 Related Section: The following Sections contain requirements that relate to this Section:
 - A. Division 01 3100 Section "Project Management and Coordination" for progress meetings, coordination and pre-installation conferences.
 - B. Division 01 6000 Section "Product Requirements" for coordinating materials and equipment for general installation.
 - C. Division 01 7300 Section "Execution Requirements" for Layout and Measurements, specifies procedures for field engineering services, including establishment of benchmarks and control points.

1.3 COORDINATION

- 1.3.1 Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend upon each other for proper installation, connection, and operation.
 - A. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - B. Coordinate installation of different components to assure maximum accessibility for required maintenance, service and repair.
 - C. Make adequate provisions to accommodate items scheduled for later installation.

1.3.2 Where necessary, prepare memoranda for distribution to each party involved outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.

A. Prepare similar memoranda for the Owner and separate Contractors where coordination of their Work is required.

1.3.3 Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

A. Preparation of schedules.

B. Installation and removal of temporary facilities.

C. Delivery and processing of submittals.

D. Progress meetings.

E. Project closeout activities.

1.4 LIMITATIONS ON USE OF THE SITE

1.4.1 General: Limitations on site usage as well as specific requirements that impact site utilization are indicated on the drawings and by other contract documents. In addition to these limitations and requirements administer allocation of available space equitably among entities needing both access and space so as to produce the best overall efficiency in performance of the total work of the project. Schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on the site.

1.5 SUBMITTALS

1.5.1 Coordination Drawings: Prepare coordination drawings for above ceiling work, equipment rooms and other areas where careful coordination is needed for installation of products and materials fabricated by separate entities. Prepare drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.

A. Show the relationship of components on separate Shop Drawings.

B. Indicate required installation sequence.

1.5.2 Staff Names: Within fifteen (15) calendar days of "Notice to Proceed," submit a list of the Contractor's principal staff assignments, including the Superintendent and other personnel in attendance at the site; identify individuals, their duties and responsibilities. List their addresses and telephone numbers.

A. Post copies of the list in the Project meeting room, the temporary field office, and each temporary telephone.

1.5.3 Other Project names, addresses and information:

A. Lists of sub-contractors and erectors.

B. List of suppliers and manufacturers.

2. PRODUCTS (Not applicable)

3. EXECUTION

3.1 GENERAL INSTALLATION PROVISIONS

- 3.1.1 Inspection of Conditions: Require the Installer of each component to inspect both the substrate and conditions under which Work is to be performed. Proceed when unsatisfactory conditions have been corrected.
- 3.1.2 Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction.

3.2 COORDINATION PROGRAM

- 3.2.1 It shall be the responsibility of the Construction Manager/General Contractor to coordinate the equipment room requirements and the above ceiling space requirements of the various subcontractors and to determine that adequate clearance is allowed with respect to their equipment and the building.
- 3.2.2 The Coordination Program shall consist of a series of meetings with all trades involved and the preparation of installation drawings prepared from base drawings produced by the Sheet Metal Subcontractor. The Mechanical, Electrical and Fire Protection Subcontractors shall use the base drawings for producing their individual installation drawing overlays for coordination with other trades.
- 3.2.3 The following sequence shall be followed:
 - A. After the award of contract and prior to construction the Construction Manager/General Contractor will schedule a meeting to introduce the Coordination Program and determine its implication to the progress schedule. Attendees shall include the Construction Manager/General Contractor, Owner's Representative, Architect/Engineer and all subcontractors responsible for work in equipment rooms and in or above the ceilings which includes (but is not limited to) those items below:
 - 1. Recessed lighting fixtures.
 - 2. Plumbing waste, vent and roof drainage.
 - 3. Steam, condensate and all other pitched services.
 - 4. Ductwork and appurtenances.
 - 5. Fire protection (sprinkler system).
 - 6. HVAC piping.
 - 7. Plumbing, supply and service piping.
 - 8. Cable tray.
 - 9. Electrical conduit.
 - (a) The above list, in descending order, is the precedence for space priority. Recessed light fixtures and space for their installation have first priority, plumbing waste, vent and roof drainage has second priority, etc.

- B. The Construction Manager/General Contractor shall confirm that the following have been provided to the Sheet Metal Subcontractor prior to commencing the base drawings:
 - 1. Approved structural steel drawings.
 - 2. Clearance requirements for plumbing, piping, etc. from the Mechanical Subcontractor.
 - 3. Clearance requirements for recessed lighting, cable trays, etc. from the Electrical Subcontractor.
 - 4. Clearance requirements for piping from the Fire Protection Subcontractor.
- C. The Sheet Metal Subcontractor shall prepare and provide the Mechanical, Electrical and Fire Protection Subcontractors with reproducible transparent drawings which shall serve as the base drawings. The base drawings shall show column center lines, interior partition locations, and ceiling heights.
- D. The Sheet Metal Subcontractor, with reference and consideration to the structural, mechanical, electrical, fire protection, and plumbing requirements provided and the reflected ceiling plans, shall draw, to scale (minimum ¼" scale), the proposed ductwork installation showing duct sizes, equipment layouts, and dimensions from column lines and distance from finished floors to bottom of ducts and equipment. In congested areas, the Sheet Metal Subcontractor shall, in addition, prepare drawings in Section view.
- E. The base drawings with ductwork layouts shall be produced in sequence as mandated by the project schedule. The earliest area indicated in the schedule will receive the first effort, etc.
- F. When the base drawings for the earliest scheduled area have been completed (time limitation as determined in the initial coordination meeting), the Sheet Metal Subcontractor shall provide the Construction Manager/General Contractor with one set of mylars for each participant in the effort. Upon receipt of the base drawings from the Construction Manager/General Contractor each participant shall incorporate on the drawings, their proposed installation. Each of the subcontractors proposed installation drawings shall indicate to scale, size, equipment layout, equipment clearance requirements, dimensions from column centerlines and distance from the finish floor to bottom of equipment, piping, conduits, etc. The Contract Drawings shall be followed as a general guide for the proposed installation drawings.
- G. The major components to be indicated include (but are not limited to):
 - 1. Roof drain leaders.
 - 2. Waste and vent piping.
 - 3. Fire protection piping.
 - 4. Plumbing and lab service piping.
 - 5. HVAC and Mechanical ductwork routing.
 - 6. Electrical conduit and Cable tray runs.
 - 7. Contract ceiling heights and Soffit locations.
 - 8. Access points for access to valves and Dampers.
 - 9. Firewall penetrations.
- H. Prior to fabrication of ductwork and within a period of not to exceed two (2) calendar weeks after distribution of the mylars to the individual participants, the Construction Manager/General Contractor will schedule a meeting with the

Owner's Representative, the Architect/Engineers and participating Subcontractors at which time areas of conflict shall be resolved through the following process:

1. The transparent tracings shall be overlaid on a light table to identify areas of conflict. All parties shall then cooperate in resolving the conflicts.
 2. The Owner's Representative and the Architect/Engineer reserve the right to determine space priority of the Subcontractors in the event of interference between piping, conduits, ducts and equipment of the various Subcontractors.
 3. Records of the areas of conflict and the names of the subcontractor who is to make modifications to their drawings shall be kept by the Construction Manager/General Contractor. This record shall be updated on a weekly basis and shall be incorporated into the coordination meeting minutes.
 4. Once all areas of conflict are resolved, each participant shall revise their drawings and shall submit for review. After review, ductwork can be fabricated, and installation of work can begin. A permanent record of the agreement shall be entered on each Subcontractors' installation drawings, acknowledged by all participants' by signature in a space provided for this purpose. The Construction Manager/General Contractor shall provide and distribute two graphic copies of each subcontractor's signed installation drawings to all parties involved. Revisions to drawings as a result of the coordination process shall not be considered an extra and will not result in a change to the contract.
 5. The above drawings, review and coordination process will be repeated until all areas on the Project have been coordinated.
- I. Shop drawings shall be modified through the coordination process to reflect the final resolved locations of equipment prior to submittal for review.
 - J. In the event a Subcontractor fails to cooperate in the Coordination Program, he shall be held responsible for all costs incurred for adjustments to the work of others made necessary to accommodate the uncooperative Subcontractor's installations.
 - K. When a Change Order request is issued, the affected Subcontractors shall review the Coordination Drawings and bring to the attention of the Construction Manager/General Contractor any revisions necessary to the work of others affected by the Change Order.

3.2.4 At the completion of the project, each subcontractor shall provide the Construction Manager/General Contractor with a reproducible transparent drawing of the installation drawings to be forwarded to the Owner.

3.3 CLEANING AND PROTECTION

3.3.1 Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.

- 3.3.2 Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- 3.3.3 Limiting Exposures: Supervise construction activities to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
- A. Excessive static or dynamic loading.
 - B. Excessive internal or external pressures.
 - C. Excessively high or low temperatures.
 - D. Thermal shock.
 - E. Excessively high or low humidity.
 - F. Air contamination or pollution.
 - G. Water or ice.
 - H. Solvents.
 - I. Chemicals.
 - J. Radiation.
 - K. Puncture.
 - L. Abrasion.
 - M. Heavy traffic.
 - N. Soiling, staining and corrosion.
 - O. Bacteria.
 - P. Rodent and insect infestation.
 - Q. Electrical current.
 - R. Improper lubrication.
 - S. Unusual wear or other misuse.
 - T. Contact between incompatible materials.
 - U. Misalignment.
 - V. Excessive weathering.
 - W. Unprotected storage.
 - X. Improper shipping or handling.
 - Y. Theft.
 - Z. Vandalism.

END OF SECTION 01 3100

SECTION 01 3119

PROJECT MEETINGS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section specifies administrative and procedural requirements for project meeting, including but not limited to: Pre-Construction Meeting, Pre-Installation Meeting, Coordination Meetings and Progress Meetings

1.3 PRE-CONSTRUCTION MEETING

- 1.3.1 A pre-construction meeting will be held at the Project site or other convenient location by the Construction Manager after execution of the Agreement and prior to commencement of the construction activities. The purpose of the meeting shall be to review responsibilities, personnel assignments and schedule.
- 1.3.2 Attendees shall include the Owner, Construction Manager, Architect and their consultants, all Contractors and/or their superintendents, major subcontractors, manufacturers, suppliers, and other concerned parties shall each be represented at the conference by persons familiar with and authorized to conclude matters relating to the Work.
- 1.3.3 The meeting may include such topics as: Construction Schedule, Critical Work Sequencing, Designation of Responsible Personnel, Procedures for Processing Field Decisions and Change Orders, Procedures for Processing Applications for Payment, Distribution of Contract Documents, Submittal of Shop Drawings, Product Data and Samples, Preparation of Record Documents, Use of the Premises, Office, Work and Storage Areas, Equipment Deliveries and Priorities, Safety Procedures, First Aid, Security, Housekeeping and Working Hours.

1.4 PRE-INSTALLATION MEETING

- 1.4.1 The Construction Manager may conduct a pre-installation meeting at the site before each construction activity that requires coordination with other construction. If a Pre-Installation Meeting is scheduled, the installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting.

- 1.4.2 The purpose of the meeting will be to review the progress of other construction activities in preparation for the particular activity under consideration at each pre-installation conference, including requirements for: Contract Documents, Options, Related Change Orders, Purchases, Deliveries, Shop Drawings, Product Data and Quality Control Samples, Possible Conflicts, Compatibility Problems, Time Schedule, Weather Limitations, Manufacturer's Recommendations, Compatibility of Materials, Acceptability of Substrates, Temporary Facilities, Space and Access Limitations, Governing Regulations, Safety, Inspection and Testing Requirements, Required Performance Results, Recording Requirements, Protection
- 1.4.3 The Construction Manager shall record significant discussions and agreements and disagreements of each conference, along with the approved schedule. The Construction Manager shall distribute the record of the meeting to everyone concerned promptly, including the Owner and Architect. Do not proceed if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the conference at the earliest feasible date.

1.5 PROGRESS MEETINGS

- 1.5.1 The Construction Manager will conduct progress meetings at regularly scheduled intervals.
- 1.5.2 In addition to representatives of the Owner, CM, and Architect, each subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings by persons familiar with the Project and authorized to conclude matters relating to progress. Progress Meetings are MANDATORY for those contractors working on site. The foreman or a dedicated worker MUST attend.
 - A. The Construction Manager reserves the right to delay payment to contractors who fail to attend weekly meetings while on-site.
- 1.5.3 The agenda shall include reviewing minutes of the previous progress meeting, review other items of significance that could affect progress. Other topics may include: Interface Requirements, Time, Sequences, Deliveries, Off-Site Fabrications Problems, Access, Site Utilization, Temporary Facilities and Services, Hours of Work, Hazards and Risks, Housekeeping, Quality and Work Standards, Change Orders and Documentation of Information for Payment Requests.
- 1.5.4 The meeting will also include a review of the Construction Schedule. Review progress since the last meeting. Determine where each activity is in relation to the Construction Manager's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

- 1.5.5 Construction Manager will distribute copies electronically of minutes of the meeting to each party present and to other parties who should have been present. The Construction Manager shall also revise the Construction Schedule after each progress meeting where revisions to the Schedule have been made or recognized and will issue the revised Schedule concurrently with the report of each meeting.

2. PRODUCTS (Not Used)

3. EXECUTION (Not Used)

END OF SECTION 01 3119

SECTION 01 3300

SUBMITTAL PROCEDURES (Through BuildingBlok)

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.

- A. Shop drawings and Samples
- B. Product data submittal procedures
- C. Shop Drawing and Samples Transmittal Form
- D. Contract Close-out Deliverables Form

- 1.2.1 Related Sections include the following:

- A. Division 01290 Section "Payment Procedures" for submitting Applications for Payment and the Schedule of Values.
- B. Division 01400 Section "Quality Requirements" for submitting test and inspection reports.
- C. Division 01770 Section "Closeout Procedures" for submitting warranties.
- D. Division 01770 Section "Closeout Procedures" for submitting Record Drawings, Record Specifications, and Record Product Data.
- E. Division 01770 Section "Closeout Procedures" for submitting operation and maintenance manual.
- F. Division 01770 Section "Closeout Procedures" for submitting videotapes of demonstration of equipment and training of Owner's personnel.
- G. Divisions 02000 through 16000 Sections for specific requirements for submittals in those Sections.

1.3 DEFINITIONS

- 1.3.1 Action Submittals (Shop Drawings, Samples, Product Data, Catalog Cuts, etc.): Written and graphic information that requires Architect's and Construction Manager Constructor's responsive action.

- 1.3.2 Informational Submittals: Written information that does not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- 1.4.1 General: Electronic copies of CAD Drawings of the Contract Drawings may be provided at Architect's discretion and at extra cost to Contractor for use in preparing submittals.
- 1.4.2 Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - A. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - B. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - 1. Architect and Construction Manager Constructor reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- 1.4.3 Submittals Schedule: Provide the Construction Manager Constructor with a list of submittals and time requirements for scheduled performance of related construction activities.
- 1.4.4 Structural steel shop drawings: Prior to the submittal of shop drawings, Pre-submittal Drawings shall be submitted – refer to spec section 05 1200 Structural Steel Framing. The architect and structural engineer will review the Pre-submittal Drawings to clarify the design intent of the Construction Documents and provide additional information as required.
- 1.4.5 Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - A. Initial Review: Allow twenty (20) calendar days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 - B. Resubmittal Review: Allow fifteen (15) calendar days for review of each resubmittal.
 - C. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow twenty (20) calendar days for initial review of each submittal.

D. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow fifteen (15) calendar days for review of each submittal. Submittal will be returned to Construction Manager Constructor, through the Architect, before being returned to Contractor.

1.4.6 Shop Drawing Submittal Procedures: The procedures and quantity of drawings, catalog cuts, samples and other information for submittal are minimum. The Contractor and Architect will finalize format at the Project Kick-Off Meeting. The direct submittal delivery procedures to affected parties is intended to expedite the review turn-around period by the Architect and his Consultants.

A. Information shall be submitted directly in the following manner:

1. All submittals both electronic and hard copy shall be submitted to the **Construction Manager Constructor first**.
2. If hard-copy submittals are required, Architectural, Mechanical and Electrical trades shall submit seven (7) copies to the Construction Manager Constructor. A minimum of two (2) copies shall be returned to the submitting contractor.

1.4.7. Identification: Place a permanent label or title block on each submittal for identification.

A. Indicate name of firm or entity that prepared each submittal on label or title block.

B. Provide a space approximately 4 x 5 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect and Construction Manager Constructor.

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

1. Project name
2. Date
3. Name and address of Architect and Construction Manager Constructor
4. Name and address of Contractor
5. Name and address of subcontractor
6. Name and address of supplier
7. Name of manufacturer
8. Submittal number or other unique identifier, including revision identifier.

a) Submittal number shall use whole numbers for the first submittal.

Example: Arch = A-001 / Mech = M-001 / Elect = E-001

b) Resubmittals for the same item shall be identified with the original first whole submittal number and the resubmitted number following the decimal point.

Example: Architectural = A-001.1 (first resubmittal)

9. Number and title of appropriate Specification Section
10. Drawing number and detail references, as appropriate
11. Location(s) where product is to be installed, as appropriate
12. Other necessary identification

1.4.8 Deviations: Highlight and encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.

1.4.9 Additional Copies: Unless additional copies are required for final submittal, and unless Architect or Construction Manager Constructor observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.

- A. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect and Construction Manager Constructor.
- B. Additional copies submitted for maintenance manuals will not be marked with Architect's Transmittal action review and will be discarded and returned only upon contractor's written request.

1.4.10 Transmittal: Package each submittal item individually and appropriately for transmittal and handling. Transmit each submittal including the information below. Architect received submittals from sources other than Construction Manager Constructor or General Contractor will be discarded without review.

A. Information to be included on transmittal:

1. Project name
2. Date
3. Destination (To:)
4. Source (From:)
5. Names of subcontractor, manufacturer, and supplier
6. Category and type of submittal
7. Submittal purpose and description
8. Specification Section number and title
9. Drawing number and detail references, as appropriate
10. Transmittal number, numbered consecutively
11. Submittal and transmittal distribution record
12. Remarks
13. Signature of transmitter

1.4.11 Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

- A. Note date and content of previous submittal.
- B. Note date and content of revision in label or title block and clearly indicate extent of revision.
- C. Resubmit submittals until they are marked with Architect's "REVIEWED FOR CONSTRUCTION" or Architect's "REVIEWED AS NOTED" stamp and Construction Manager Constructor's action stamp.

1.4.12 Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

1.4.13 Use for Construction: Use only final submittals with mark indicating Architect's "REVIEWED FOR CONSTRUCTION" or "REVIEWED AS NOTED" stamp and Construction Manager Constructor's or General Contractor's release for construction stamp.

A. DO NOT USE Shop Drawings noted "XRR = RETURNED FOR CORRECTIONS" for construction or fabrication.

1.5 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES

1.5.1 General: At Contractor's written request, copies of Architect's CAD files may be provided to Contractor for Contractor's use in connection with Project, subject to the following conditions:

A. Architect may require a payment or fee for use of CAD Drawings.

PART 2 PRODUCTS

2.1 ACTION SUBMITTALS

2.1.1 General: Prepare and submit Action Submittals required by individual Specification Sections.

- A. Submit electronic submittals by email to the Construction Manager Constructor or directly to extranet specifically established for Project.
- B. Submit hard copies direct to the Construction Manager Constructor.

2.1.2 Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

- A. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
- B. Mark each copy of each submittal to show which products and options are applicable.
- C. Include the following information, as applicable:
 - 1. Manufacturer's written recommendations
 - 2. Manufacturer's product specifications
 - 3. Manufacturer's installation instructions
 - 4. Standard color charts
 - 5. Manufacturer's catalog cuts
 - 6. Wiring diagrams showing factory-installed wiring

7. Printed performance curves
 8. Operational range diagrams
 9. Mill reports
 10. Standard product operating and maintenance manuals
 11. Compliance with specified referenced standards
 12. Testing by recognized testing agency
 13. Application of testing agency labels and seals
 14. Notation of coordination requirements
- D. Submit Product Data concurrent with Samples.
- E. Number of Copies: Submit copies as indicated in Part 1.4 "Submittal Procedures".

2.1.3 Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

- A. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
1. Dimensions
 2. Identification of products
 3. Fabrication and installation drawings
 4. Roughing-in and setting diagrams
 5. Wiring diagrams showing field-installed wiring, power, signal, and control wiring
 6. Shop work manufacturing instructions
 7. Templates and patterns
 8. Schedules
 9. Design calculations
 10. Compliance with specified standards
 11. Notation of coordination requirements
 12. Notation of dimensions established by field measurement
 13. Relationship to adjoining construction clearly indicated
 14. Seal and signature of professional engineer if specified
 15. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
- B. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.
- C. Number of Copies: Submit copies as indicated in Part 1.4 "Submittal Procedures".

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

- A. Transmit samples that contain multiple, related components such as accessories together in one submittal package.
- B. Identification: Attach label on unexposed side of Samples that includes the following:
 - 1. Generic description of Sample
 - 2. Product name and name of manufacturer
 - 3. Sample source
 - 4. Number and title of appropriate Specification Section
- C. Disposition: Maintain sets of approved Samples at Project site, available for quality control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - 1. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - 2. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
- D. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - 1. Number of Samples: Submit one (1) full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect, through Construction Manager Constructor, will return submittal with options selected.
- E. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - 1. Number of Samples: Submit number of samples as indicated in Part 1.4 "Submittal Procedures".
 - a. Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - b. If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three (3) sets of paired units that show approximate limits of variations.

- 2.1.5 Product Schedule or List: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 - A. Type of product. Include unique identifier for each product.
 - B. Room name, room number, space and location
- 2.1.6 Application for Payment: Comply with requirements specified in Division 01 Section "Payment Application Procedures."
- 2.1.7 Schedule of Values: Comply with requirements specified in Division 01 Section "Payment Application Procedures."
- 2.1.8 Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - A. Name, address, and telephone number of entity performing subcontract or supplying products.
 - B. Number and title of related Specification Section(s) covered by subcontract.
 - C. Drawing number and detail references, as appropriate, covered by subcontract.
 - D. Number of Copies: Submit two (2) copies of subcontractor list, unless otherwise indicated.

2.2 INFORMATIONAL SUBMITTALS

- 2.2.1 General: Prepare and submit Informational Submittals required by other Specification Sections.
 - A. Number of Copies: Submit two (2) copies of each submittal, unless otherwise indicated. Architect will not return copies.
 - B. 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.
 - C. Test and Inspection Reports: Comply with requirements in Division 01 4000 Section "Quality Requirements."
- 2.2.2 Coordination Drawings: Comply with requirements specified in Division 01 3100 Section "Project Management and Coordination."
- 2.2.3 Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

- 2.2.4 Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- 2.2.5 Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- 2.2.6 Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- 2.2.7 Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- 2.2.8 Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- 2.2.9 Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- 2.2.10 Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- 2.2.11 Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - A. Name of evaluation organization
 - B. Date of evaluation
 - C. Time period when report is in effect
 - D. Product and manufacturers' names
 - E. Description of product
 - F. Test procedures and results
 - G. Limitations of use
- 2.2.12 Schedule of Tests and Inspections: Comply with requirements specified in Division 01 4000 Section "Quality Requirements."

- 2.2.13 Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- 2.2.14 Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- 2.2.15 Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.
- 2.2.16 Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 01 7700 Section "Closeout Procedures" for Operation and Maintenance Data."
- 2.2.17 Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- 2.2.18 Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
- A. Preparation of substrates
 - B. Required substrate tolerances
 - C. Sequence of installation or erection
 - D. Required installation tolerances
 - E. Required adjustments
 - F. Recommendations for cleaning and protection
- 2.2.19 Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
- A. Name, address, and telephone number of factory-authorized service representative making report.

- B. Statement on condition of substrates and their acceptability for installation of product.
- C. Statement that products at Project site comply with requirements.
- D. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
- E. Results of operational and other tests and a statement of whether observed performance complies with requirements.
- F. Statement whether conditions, products, and installation will affect warranty.
- G. Other required items indicated in individual Specification Sections.

2.2.20 Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles and term of the coverage.

2.2.21 Material Safety Data Sheets (MSDSs): Submit information directly to Construction Manager Constructor; do not submit to Architect, except as required in "Action Submittals' Article."

- A. Architect will not review submittals that include MSDSs and will return the entire submittal for resubmittal.

2.3 DELEGATED DESIGN

2.3.1 Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

- A. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

2.3.2 Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit three (3) copies of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

- A. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 EXECUTION

3.1 CONTRACTOR'S REVIEW

- 3.1.1 Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with Contractor's review approval stamp before submitting to Architect.
- 3.1.2 Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S AND CONSTRUCTION MANAGER CONSTRUCTOR'S ACTION

- 3.2.1 General: Architect will not review submittals that do not bear Construction Manager Constructor's or General Contractor's review approval stamp and will return them without action.
- 3.2.2 Action Submittals: Architect and Construction Manager Constructor will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect and Construction Manager Constructor will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action to be taken.
- 3.2.3 Informational Submittals: Architect will review each submittal and will return it to the Construction Manager Constructor or General Contractor with review comments for their review.
- 3.2.4 Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.

END OF SECTION 01 3300

SECTION 01 4000

QUALITY REQUIREMENTS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section includes administrative and procedural requirements for quality assurance and quality control.
- 1.2.2 Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - A. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - B. Specified tests, inspections, and related actions do not limit Contractor's other quality assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - C. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, CM/Constructor, or authorities having jurisdiction are not limited by provisions of this Section.
- 1.2.3 Related Sections include the following:
 - A. Division 01732 Section "Cutting and Patching" for repair and restoration of construction disturbed by testing and inspecting activities.
 - B. Divisions 02 through 17 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

- 1.3.1 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.

- 1.3.2 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. Services do not include contract enforcement activities performed by Architect or CM/Constructor.
- 1.3.3 Mockups: Full-size, physical assemblies that are constructed on-site. Mockups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Approved mockups establish the standard by which the Work will be judged.
- 1.3.4 Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.
- 1.3.5 Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- 1.3.6 Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- 1.3.7 Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- 1.3.8 Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- 1.3.9 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, and similar operations.

1.4 CONFLICTING REQUIREMENTS

- 1.4.1 General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.

- 1.4.2 Minimum Quantity or Quality Levels: 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 limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements.

1.5 SUBMITTALS

- 1.5.1 Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- 1.5.2 Schedule of Tests and Inspections: Prepare in tabular form and include the following:
- A. Specification Section number and title.
 - B. Description of test and inspection.
 - C. Identification of applicable standards.
 - D. Identification of test and inspection methods.
 - E. Number of tests and inspections required.
 - F. Time schedule or time span for tests and inspections.
 - G. Entity responsible for performing tests and inspections.
- 1.5.3 Reports: Prepare and submit certified written reports that include the following:
- A. Date of issue.
 - B. Project title and number.
 - C. Name, address, and telephone number of testing agency.
 - D. Dates and locations of samples and tests or inspections.
 - E. Names of individuals making tests and inspections.
 - F. Description of the Work and test and inspection method.
 - G. Identification of product and Specification Section.
 - H. Test and inspection results and an interpretation of test results.
 - I. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 - J. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 - K. Name and signature of laboratory inspector.
 - L. Recommendations on retesting and reinspecting.
- 1.5.4 Permits, Licenses, and Certificates: For Owner's records, submit 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.

1.6 QUALITY ASSURANCE

- 1.6.1 General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- 1.6.2 Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- 1.6.3 Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- 1.6.4 Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- 1.6.5 Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- 1.6.6 Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - A. Requirement for specialists shall not supersede building codes and regulations governing the Work.
- 1.6.7 Testing Agency Qualifications: An NRTL, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
 - A. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.

- 1.6.8 Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- 1.6.9 Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
- A. Contractor responsibilities include the following:
 - 1. Provide test specimens representative of proposed products and construction.
 - 2. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - 3. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
 - 4. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
 - 5. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
 - 6. When testing is complete, remove test specimens, assemblies, mockups, and laboratory mockups; do not reuse products on Project.
 - B. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, through CM/Constructor, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- 1.6.10 Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
- A. Build mockups in location and of size indicated or, if not indicated, as directed by Architect or CM/Constructor.
 - B. Notify Architect and CM/Constructor seven (7) calendar days in advance of dates and times when mockups will be constructed.
 - C. Demonstrate the proposed range of aesthetic effects and workmanship.
 - D. Obtain Architect's and CM/Constructor's approval of mockups before starting work, fabrication, or construction.
 - 1. Allow seven (7) calendar days for initial review and each re-review of each mockup.
 - E. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - F. Demolish and remove mockups when directed, unless otherwise indicated.

- 1.6.11 Laboratory Mockups: Comply with requirements of preconstruction testing and those specified in individual Sections in Divisions 02 through Divisions 33.

1.7 QUALITY CONTROL

- 1.7.1 Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

- A. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
- B. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.
- C. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, **and the Contract Sum will be adjusted by Change Order.**

- 1.7.2 Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.

- A. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
- B. Notify testing agencies at least forty-eight (48) hours in advance of time when Work that requires testing or inspecting will be performed.
- C. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
- D. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
- E. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

- 1.7.3 Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01330 Section "Submittal Procedures."

- 1.7.4 Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.

- 1.7.5 Testing Agency Responsibilities: Cooperate with Architect, CM/Constructor, and Contractors in performance of duties. Provide qualified personnel to perform required tests and inspections.
- A. Notify Architect, CM/Constructor, and Contractors promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - B. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 - C. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - D. Submit a certified written report, in duplicate, of each test, inspection, and similar quality control service through Contractor.
 - E. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 - F. Do not perform any duties of Contractor.
- 1.7.6 Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel.
- A. Incidental labor and facilities necessary to facilitate tests and inspections.
 - B. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - C. Facilities for storage and field curing of test samples.
 - D. Delivery of samples to testing agencies.
 - E. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - F. Security and protection for samples and for testing and inspecting equipment at Project site.
- 1.7.7 Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
- A. Schedule times for tests, inspections, obtaining samples, and similar activities.
- 1.7.8 Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within thirty (30) calendar days of date established for **commencement of the Work** or **the Notice to Proceed**.
- A. Distribution: Distribute schedule to Owner, Architect, CM/Constructor, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.8 SPECIAL TESTS AND INSPECTIONS

- 1.8.1 Special Tests and Inspections: Owner may engage a qualified testing agency or special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:
- 1.8.2 Special Tests and Inspections: Conducted by a qualified testing agency or special inspector as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:
 - A. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
 - B. Notifying Architect, CM/Constructor, and Contractors promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - C. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect, CM/Constructor, with copy to Contractors and to authorities having jurisdiction.
 - D. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 - E. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 - F. Retesting and reinspecting corrected work.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 ACCEPTABLE TESTING AGENCIES

- 3.1.1 CM/Constructor and Owner will select testing agency before construction begins.
 - A. CM/Constructor or Contractor may recommend testing agency firm to the Architect or Owner for decision.

3.2 TEST AND INSPECTION LOG

- 3.2.1 Prepare a record of tests and inspections. Include the following:
 - A. Date test or inspection was conducted.
 - B. Description of the Work tested or inspected.
 - C. Date test or inspection results were transmitted to Architect.
 - D. Identification of testing agency or special inspector conducting test or inspection.

- 3.2.2 Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's and CM/Constructor's reference during normal working hours.

3.3 REPAIR AND PROTECTION

- 3.1.1 General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - A. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
 - B. Comply with the Contract Document requirements for Division 01732 Section "Cutting and Patching."
- 3.1.2 Protect construction exposed by or for quality-control service activities.
- 3.1.3 Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 4000

SECTION 01 5000

TEMPORARY FACILITIES AND CONTROLS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

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

- A. Temporary utilities, services and facilities will be provided by the Owner through the CM unless otherwise noted or directed by the CM.

- 1. Each Contractor shall provide their own hoisting, loading and unloading.
 - 2. Contractors shall arrange for, and schedule, all deliveries during their own normal workday hours.
 - 3. **EACH CONTRACTOR IS RESPONSIBLE FOR THEIR OWN WINTER PROTECTION AS IT RELATES TO YOUR SCOPE OF WORK.**

- 1.2.2 Temporary Utilities include, but are not limited to:

- A. Temporary Water Service
 - 1. By Owner
- B. Temporary Electric, Power and Light
 - 1. By Electrical Contractor

- 1.2.3 Temporary Construction and Support Facilities include, but are not limited to:

- A. Temporary Heat – CM will direct contractor to hook up temporary building heat on a Time & Materials basis. The Owner will pay for utility usage.
- B. Field Offices
 - 1. By Each Trade Contractor
- C. Temporary Toilets
 - 1. By Owner
- D. Dumpster
 - 1. By Owner

- a. **Dumpster is for minor debris only.** No Masonry, Concrete, Pallets or other major items are allowed. CM will back charge contractor for misuse of Dumpster.
- b. Cleanup is the responsibility of each Bid Category. If necessary, CM will cleanup and back charge contractors accordingly (Refer to Section 017100).

E. Temporary Enclosures

1. Temporary Supports

- a. All Bid Categories shall include all costs necessary to brace their work as required per MIOSHA to maintain progress. This is required for the duration of the project.

2. Temporary Partitions

- a. By Owner

3. Building Enclosures (As Directed By CM) on a T&M basis.

- a. By General Trades Contractor

1.2.4 Security and protection facilities required include, but are not limited to:

A. Temporary Fire Protection

- 1. By General Trade Contractor

B. Barricades, Warning Lights, Signs, Etc.

- 1. By Each Trade Contractor per MIOSHA Regulations

C. Environmental Protection

- 1. By Each Trade Contractor

1.3 QUALITY ASSURANCE

1.3.1 Regulations: Comply with industry standards and applicable laws and regulation for authorities having jurisdiction including, but not limited to:

- A. Building Code Requirements
- B. Health and Safety Regulations
- C. Utility Company Regulations
- D. Environmental Protection Regulations

1.3.2 Standards: Comply with the following codes and standards:

- A. NFPA Code 241 – “Building Construction and Demolition Operations”
- B. ANSI-A10 Series – “Safety Requirements for Construction and Demolition”
- C. NECA Electrical Design Library – “Temporary Electrical Facilities”

- 1.3.3 Refer to “Guidelines for Bid Conditions for Temporary Job Utilities and Services,” prepared jointly by AGC and ASC for industry recommendations.
- 1.3.4 Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA 70).
- 1.3.5 Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certification and permits.

1.4 PROJECT CONDITIONS

- 1.4.1 When acceptable to the Owner, change over from use of temporary service to use of the permanent service.
- 1.4.2 Conditions of Use:
 - A. Keep temporary services and facilities clean and neat in appearance
 - B. Operate in a safe and efficient manner
 - C. Take necessary fire prevention measures
 - D. Do not overload facilities or permit them to interfere with progress
 - E. Do not allow hazardous, dangerous, unsanitary conditions or public nuisances to develop or persist on the site.

2. PRODUCTS

2.1 MATERIALS

- 2.1.1 General – Provide new materials or undamaged previously used materials in serviceable condition.
- 2.1.2 Lumber and Plywood – For safety barriers, sidewalks, bridges and similar uses, provide minimum 5/8” thick exterior plywood.
- 2.1.3 Tarpaulins – Provide waterproof, fire resistant, UL labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures; provide translucent, nylon, reinforced, laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.
- 2.1.4 Water – Use Potable Water.

2.2 EQUIPMENT

- 2.2.1 Water Hoses – Shall be ¾” heavy-duty, abrasion resistant, flexible, rubber hoses with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shut-off nozzles at hose discharge.

- 2.2.2 Electrical Outlets – Properly configured NEMA polarized outlets to prevent insertion of 110-120 volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment (Refer to Section 16000 – Electrical).
- 2.2.3 Electrical Power Cords – Shall be provided by each Bid Category and shall be ground extension cords. Use “hard-service” cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress.
- 2.2.4 Heating Units – Temporary heating units shall be tested and labeled by UL, FM or another recognized trade association related to the type of fuel being consumed.
- 2.2.5 Temporary Offices – Each Contractor shall provide prefabricated or mobile units with lockable entrances, operable windows, and serviceable finishes. Provide heated units on foundations adequate for normal loading. Construction Manager is not responsible for temporary offices, trailers, or the contents inside such trailers.
- 2.2.6 Temporary Toilet Unit – Provided by Owner
- 2.2.7 First Aid Supplies – Each Bid Category Contractor shall comply with governing regulations.
- 2.2.8 Fire Extinguishers – Shall be portable UL-rated, Class “A” fire extinguishers for temporary offices and similar spaces. In other locations, provide portable, UL-rated, Class “ABC” dry chemical extinguishers or a combination of extinguishers of NFPA recommended classes for the exposures.
 - A. Comply with NFPA 10 *AND* 241 for classification, extinguishing agent and size required by location and class of fire exposure.

3. EXECUTION

3.1 INSTALLATION

- 3.1.1 Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as directed by the Construction Manager.
- 3.1.2 Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed, or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- 3.2.1 Owner will provide permanent power to main transformer pad. As soon as possible, contractors may have to supply portable generators until temporary power is established or during shutdown if required.
 - A. Arrange with the company and existing users for a time when service can be interrupted, where necessary, to make connections for temporary service (Refer to Section 16000).
 - B. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services (Refer to Section 16000).
- 3.2.2 Temporary Electric Power Service – Provide a minimum of four receptacles every 1000 square feet or as necessary to provide sufficient power for contractors' work.
- 3.2.3 Power Distribution System – Install wiring overhead and rise vertically where least exposed to damage. Where permitted, wiring circuits not exceeding 125 volts, AC 20 ampere rating and lighting circuits may be non-metallic sheathed cable where overhead and exposed for surveillance.
- 3.2.4 Temporary Lighting – Install and operate temporary lighting that will fulfill security and protection requirements, without operating the entire system, and will provide adequate illumination for construction operation and traffic conditions. Whenever overhead floor or roof deck has been installed, provide temporary lighting with local switching (Refer to Section 16000).
- 3.2.5 Temporary Telephone – At each telephone, a list of emergency numbers shall be posted. Contractors may use Construction Manager's for emergency purposes only.

3.3 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

- 3.3.1 Locate field offices, storage sheds, sanitary facilities and other temporary construction and support facilities for easy access.
 - A. Maintain temporary construction and support facilities until near Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to the Owner.
 - B. Each Contractor is responsible for electrical hook-up to their trailers.
 - C. Any electric heaters or Air Conditioners used for heating or cooling will be metered and paid for by that Contractor.
- 3.3.2 Provide incombustible construction for offices, shops, and sheds located within the construction area, or within 30 feet of building lines. Comply with requirements of NFPA 241.

- 3.3.3 Temporary Heat – Provide temporary heat required by construction activities for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
- 3.3.4 Heating Facilities – Except where use of the permanent system is authorized, provide vented self-contained LP gas or fuel oil heaters with individual space thermostatic control.
- A. Use of gasoline burning space heaters, open flame or salamander type heating units is prohibited.
 - B. Any electric heaters used for temporary heating will not be approved unless approved in writing before bid date.
- 3.3.5 Mechanical and electrical contractors shall expedite their work so that completed or partially completed permanent heating installation may be used as soon as possible. Requirements for temporary use of these systems are as follows:
- A. Do not use permanent duct system until filter units are installed. Change or clean filters frequently and install new filters at completion. Filters may be cleaned only if they are type intended for cleaning. Clean filters in accordance with manufacturer's directions.
 - B. Thoroughly clean permanent convectors or other permanent space heaters used for temporary heating units. Restore units to original finish at completion of the Work.
 - C. Set permanent space heaters temporarily, if in the judgment of the Construction Manager, use is required to maintain reasonable temperatures and required to properly dry out the building. Automatic devices, permanent or temporary, shall control temperatures in all areas. Thoroughly clean valves and traps installed with the units and adjust just prior to project completion.
 - D. The Owner through the CM shall maintain and operate the temporary building heating system and pay for utility usage costs.
 - E. Costs for fuel, water and electric power required to operate heating system shall be paid by Owner. Other costs shall be paid by the trade contractor, including costs of providing and installing units, placing and replacing filters, reconditioning units and wages of labor required to operate the system. The Electrical Contractor is to hook up the power to the temporary heaters.
- 3.3.6 Temporary Lifts and Hoists – All Bid Categories are to provide their own facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

- 3.3.7 Project and Temporary Signage – The Owner through the Construction Manager will provide all Project and Directional Signage. All Bid Categories must receive approval from the Construction Manager before installing any signage. The CM reserves the right to remove any and all signage from the Project Site.
- 3.3.8 Temporary Exterior Lighting – Install exterior yard and sign lights so that signs are visible when work is being performed.
- 3.3.9 Collection and Disposal of Waste – By all Bid Categories as required. Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. ENFORCE REQUIREMENTS STRICTLY. Do not hold materials more than seven days during normal weather or three days when the temperature is expected to rise above 80° Fahrenheit (27° Celsius). Handle hazardous, dangerous or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- 3.4.1 Except for use of permanent fire protection, as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as directed by the CM.
- 3.4.2 Temporary Fire Protection – Until fire protection needs are supplied by permanent facilities, install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 “Standard for Portable Fire Extinguishers” and NFPA 241 “Standard for Safeguarding Construction, Alterations and Demolition Operations.”
 - A. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher for every 100ft. (per MIOSHA Rules and Regulations).
 - B. Store combustible materials in containers in fire-safe locations.
 - C. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways, egress exits and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.
 - D. Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.
- 3.4.3 Permanent Fire Protection – At the earliest feasible date in each area of the Project, complete installation of the permanent fire protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.
- 3.4.4 Barricades, Warning Signs and Lights – Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.

- 3.4.5 Temporary Gates and Fencing – To be maintained, locked and kept secure on a daily basis by Construction Manager. The Trade Contractors are expected to participate in locking the site especially if they are working after-hours.
- 3.4.6 Security Enclosure and Lock-up – Installed and maintained by the Construction Manager. Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security.
- 3.4.7 Storage – To be maintained in storage trailers unless approved by Construction Manager. Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lock-up. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- 3.4.8 Environmental Protection – Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and minimize the possibility that air, waterways and subsoil must be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise-making tools and equipment to hours that will minimize complaints from persons of firms near the site.

3.5 OPERATION, TERMINATION AND REMOVAL

- 3.5.1 Supervision – Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- 3.5.2 Maintenance – Each Bid Category is required to maintain the temporary facilities that they installed. Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis where required to achieve indicated results and to avoid possibility of damage.
- 3.5.3 Termination and Removal – Unless the CM requests that it be maintained longer, remove each temporary facility as the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete, or if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
 - A. Materials and facilities that constitute temporary facilities are property of the Contractor. The Owner reserves the right to take possession of Project Identification Signs.

- B. Remove temporary paving that is not intended for or acceptable for integration into permanent paving. Where the area is intended for landscape development remove soil and aggregate fill that does not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt and other petrochemical compounds and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs and sidewalks at the temporary entrances, as required by the governing authority.
- C. At Substantial Completion, clean and renovate permanent facilities that have been used during the construction period including but not limited to:
 - 1. Replace air filters and clean inside of ductwork and housings.
 - a. By Mechanical Contractor
 - 2. Replace significantly worn parts and parts that have been subject to unusual operating conditions.
 - a. By Mechanical Contractor
 - 3. Replace lamps that are burned out or noticeable dimmed by substantial hours of use. Clean light lenses and diffusers.
 - a. By Electrical Contractor

END OF SECTION 01 5000

SECTION 01 6000

PRODUCT REQUIREMENTS

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section includes the following administrative and procedural requirements: selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.

- A. Substitutions Request Procedures
- B. Product Substitutions and Options

- 1.2.2 Related Sections include the following:

- A. Division 01770 Section "Closeout Procedures" for submitting warranties for contract closeout.
- B. Divisions 02 through 17 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- 1.3.1 Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

- A. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
- B. New Products: Items that have not previously been incorporated into another project or facility, **except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise.** Products salvaged or recycled from other projects are not considered new products.

C. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

1.3.3 Substitutions (after selection of successful bidder): Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

1.3.4 Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

1.3.5 Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.

1.3.6 Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

1.4 SUBMITTALS

1.4.1 Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.

A. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.

B. Form: Tabulate information for each product under the following column headings:

1. Specification Section number and title
2. Generic name used in the Contract Documents
3. Proprietary name, model number, and similar designations
4. Manufacturer's name and address
5. Supplier's name and address
6. Installer's name and address
7. Projected delivery date or time span of delivery period
8. Identification of items that require early submittal approval for scheduled delivery date

- C. Initial Submittal: Within thirty (30) calendar days after date of "Notice to Proceed," or date of commencement of work, submit three (3) copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.
 - 1. At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.
- D. Completed List: Within sixty (60) calendar days after date of "Notice to Proceed," submit three (3) copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
- E. Architect's Action: Architect will respond in writing to Contractor within fifteen (15) calendar days of receipt of completed product list. Architect's response will include a list of unacceptable product selections without explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement that products comply with the Contract Documents.

1.4.2 Substitution Requests Procedures: Submit three (3) copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

- A. Substitution Request must be proposed and submitted only to the CM/Constructor or General Contractor. Substitution Requests must not be sent directly to the Architect.
- B. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - 1. Statement indicating why specified material or product cannot be provided.
 - 2. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and other separate Contractors, that will be necessary to accommodate proposed substitution.
 - 3. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 4. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - 5. Samples, where applicable or requested.
 - 6. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.

7. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 8. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 9. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
 10. Cost information, including a proposal of change, if any, in the Contract Sum.
 11. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 12. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- C. Architect/Engineer shall have right to reject proposed substitution without explanation.
- D. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within Seven (7) calendar days of receipt of a request for substitution. Architect will notify General Contractor or CM/Constructor of acceptance or rejection of proposed substitution within Ten (10) calendar days of receipt of request, or Seven (7) calendar days of receipt of additional information or documentation, whichever is later.
1. **Should the Architect not respond within Twelve (12) calendar days of the dated date of Request, the proposed substitution is considered REJECTED.**
 2. Form of Acceptance: Construction Change Directive (CCD).
 3. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
 4. Owner or Architect does not have to give any reason for rejection of substitutions.

1.4.3 Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01330 Section "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

1.5.1 Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

- A. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
- B. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

1.6.1 Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

- A. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
- B. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- C. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- D. Store products to allow for inspection and measurement of quantity or counting of units.
- E. Store materials in a manner that will not endanger Project structure.
- F. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
- G. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
- H. Protect stored products from damage.

1.6.2 Owner's Storage Area: Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

- 1.7.1 Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
- 1.7.2 Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.

- A. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
- B. Refer to Divisions 02 through Divisions 17 Sections for specific content requirements and particular requirements for submitting special warranties.

1.7.3 Submittal Time: Comply with requirements in the following:

- A. Division 01330 Section "Submittal Procedures."
- B. Division 01770 Section "Closeout Procedures."

PART 2 PRODUCTS

2.1 PRODUCT OPTIONS and SUBSTITUTIONS

2.1.1 General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.

- A. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
- B. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- C. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- D. Where products are accompanied by the term "as selected," Architect will make selection.
- E. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
- F. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
- G. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product acceptable to the Architect.

2.1.2 Product Selection Procedures: Procedures for product selection include the following:

- A. Product: Where Specification paragraphs or subparagraphs titled "Product" name a single product and manufacturer, provide the product named.
 - 1. The product is a single source item.
Substitutions will not be considered.

- B. Manufacturer/Source: Where Specification paragraphs or subparagraphs titled "Manufacturer" or "Source" name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.
 - 1. Substitutions may be considered.
- C. Manufacturer's Products: Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
 - 1. Substitutions will not be considered.
- D. Manufacturers: Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
 - 1. Substitutions by non-listed manufacturers will not be considered.
- E. Product Options: Where Specification paragraphs titled "Product Options" indicate that size, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide either the specific product or system indicated or a comparable product or system by a specified manufacturer. Comply with provisions in "Product Substitutions" Article.
- F. Basis-of-Design Products: Where Specification paragraphs or subparagraphs titled "Basis-of-Design Product" are included and also introduce or refer to a list of manufacturers' names, provide either the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, design profiles, dimensions, and other characteristics that are based on the product named.
 - 1. Provide Basis-of Design product or by one of the listed manufacturers.
 - 2. Substitutions of other products will not be considered.
- G. Visual Matching Specification: Where Specifications require matching an established Sample, select a product (and manufacturer) that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches satisfactorily.
 - 1. If no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents on "substitutions" for selection of a matching product.
- H. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.

1. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that does not include premium items.
2. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.

2.2 PRODUCT SUBSTITUTIONS CRITERIA

- 2.2.1 Timing: Architect may consider requests for substitution if received within thirty (30) calendar days after the "Notice to Proceed" or before the first (1st) "Application for Payment." Requests received after that time may be considered or rejected at discretion of Architect without explanation.
- 2.2.2 Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action or reason, except to record noncompliance with these requirements:
 - A. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - B. Requested substitution does not require extensive revisions to the Contract Documents.
 - C. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - D. Substitution request is fully documented and properly submitted.
 - E. Requested substitution will not affect work of other Trades Contractor's construction time schedule.
 - F. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - G. Requested substitution is compatible with other portions of the Work.
 - H. Requested substitution has been coordinated with other portions of the Work.
 - I. Requested substitution provides specified warranty.
 - J. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

2.3 COMPARABLE PRODUCTS

2.3.1 Where products or manufacturers are specified by name (except noted as "basis-of-design), submit the following, in addition to other required submittals, to obtain approval of an unnamed product:

- A. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
- B. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
- C. Evidence that proposed product provides specified warranty.
- D. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
- E. Samples, if requested.

END OF SECTION 01 6000

SECTION 01 7400

CLEANING AND DEBRIS CONTROL

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 Contractors are required to perform cleanup on a regular basis. Cleanup consists of removing all trash and leftover materials from the building as a result of their work. Cleanup also consists of regular housekeeping to reduce the amount of dust and dirt brought into the building by workers entering and exiting the building. ALL trade contractors are to participate in general cleanup and housekeeping.
- 1.2.2 The Construction Manager (CM) reserves the right to act on behalf of the Owner pertaining to the cleaning and debris control responsibilities that are part of each Contractor's Work. The CM shall also be responsible for the following:
 - A. Oversee daily and weekly cleaning and ensure that the building and grounds are kept free from accumulation of waste materials, rubbish, debris, dirt and dust.
 - B. Oversee work activities and ensure work is being performed by contractors to minimize the amount of dust that is created. Contractors are to follow all MIOSHA procedures including performance of their work using proper procedures as found in the new MIOSHA Silica Standards.
 - C. Providing and scheduling exchanges of dumpsters as required.
- 1.2.3 Final Cleaning will be performed by the owner or a company hired by the owner.

2. PROCEDURES

2.1 WET SWEEPING

- 2.1.1 Wet sweeping may be performed prior to roof installation. Floors can be sprayed and broom swept.

2.2 HEPA VACUUMING

- 2.2.1 Once roof is installed, contractors are to use HEPA Vacuuming for general cleanup and on cleanup days as described in the MIOSHA Silica Standards.

3. EXECUTION

3.1 DAILY CLEANING

- 3.1.1 Each Bid Category Contractor shall execute cleaning to ensure that the building and grounds are kept free from accumulation of waste materials, rubbish, debris, dirt and dust.
- A. Daily, during progress of work, each Contractor shall clean site and public properties and dispose of waste materials, debris and rubbish in dumpsters provided by the Construction Manager.
 - B. Each Contractor shall handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.
 - C. Each Contractor shall provide and maintain garbage cans for the removal of personal trash resulting from breaks and lunches. These are to be emptied on a regular basis.
 - D. Each Contractor to maintain cleaning throughout the duration of the Project.

3.2 ROUTINE CLEANING (WEEKLY)

- 3.2.1 On a weekly basis or on a day directed by the Construction Manager, each Contractor shall perform an overall clean-up of the entire site including wet sweeping and/or use of HEPA vacuum of appropriate surfaces. Rubbish and debris shall be removed from the building site to the Owner provided dumpster immediately but no later than the day of weekly cleaning.
- A. Each Contractor shall use experienced workmen for cleaning, both in the amount required and for the necessary duration, to maintain the building site in a clean condition, as directed by the CM.
 - B. Each Contractor shall remove dirt, mud and other foreign materials from all interior and exterior surfaces.
 - C. Each Contractor to maintain cleaning throughout the duration of the Project.
 - D. Should the contractor fail in the performance of this Work, the Owner may perform such Work in accordance with Article 3 of the General Conditions.

3.3 FINAL CLEANING

- 3.3.1 Final Cleaning will be by Owner as a separate Bid Category.

END OF SECTION 01 7400

SECTION 01 7700

PROJECT CLOSEOUT PROCEDURES

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

- A. Substantial Completion and Inspection procedures.
- B. Warranties.
- C. List of incomplete items (punch list).
- D. Project Record Documents.
- E. Operation and maintenance manuals.
- F. Demonstration and Training of Owner's Personnel.
- G. Final Cleaning.

- 1.2.2 Related Sections include, but not limited to the following:

- A. Divisions 02 0000 through Divisions 33 0000 Sections for specific closeout and special cleaning requirements for products of those Sections.

1.3 SUBSTANTIAL COMPLETION

- 1.3.1 Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.

- A. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
- B. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
- C. Utilities. Include occupancy permits, operating certificates, and similar releases.
- D. Prepare and submit Project Record Documents, operation and maintenance manuals.
- E. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.

- F. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
- G. Complete startup testing of systems.
- H. Submit test/adjust/balance records.
- I. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
- J. Advise Owner of changeover in heat and other utilities.
- K. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- L. Complete final cleaning requirements, including touchup painting.
- M. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

1.3.2 Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect and Construction Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Construction Manager will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

- A. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- B. Results of completed inspection will form the basis of requirements for Final Completion.

1.4 WARRANTIES

- 1.4.1 All materials and installation have a minimum of a 12 month warranty from the date of substantial completion. Additional warranties are specified in the individual specification sections.
- 1.4.2 Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- 1.4.3 Partial Occupancy: Submit properly executed warranties within fifteen (15) calendar days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- 1.4.4 Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - A. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.

- B. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
- C. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

1.4.5 Provide additional copies of each warranty to include in operation and maintenance manuals.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

1.5.1 Preparation: Submit two (2) copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

- A. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
- B. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
- C. Include the following information at the top of each page:
 - 1. Project name.
 - 2. Date.
 - 3. Name of Architect and Construction Manager.
 - 4. Name of Contractor.
 - 5. Page number.

1.6 PROJECT RECORD DOCUMENTS

1.6.1 General: Do not use Project Record Documents for construction purposes. Protect Project Record Documents from deterioration and loss. Provide access to Project Record Documents for Architect's and Construction Manager's reference during normal working hours.

1.6.2 Record As-Built Drawings: Maintain one (1) and submit one (1) set of black-line white prints of Contract Drawings and Shop Drawings to Architect.

- A. Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - 1. Give particular attention to information on concealed elements that cannot be readily identified and recorded later.
 - 2. Accurately record information in an understandable drawing technique.
 - 3. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.

- 4. Mark Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. Where Shop Drawings are marked, show cross-reference on Contract Drawings.
 - B. Mark record sets with non-erasable, red-colored ink. Use other colors to distinguish between changes for different categories of the Work at the same location.
 - C. Mark important additional information that was either shown schematically or omitted from original Drawings.
 - D. Note Construction Change Directive numbers, Change Order numbers, alternate numbers, and similar identification where applicable.
 - E. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location. Organize into manageable sets; bind each set with durable paper cover sheets. Include identification on cover sheets.
- 1.6.3 Record Specifications: Submit one (1) copy of Project's Specifications, including addenda and contract modifications. Mark copy to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
- A. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - B. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - C. Note related Change Orders, Record Drawings, and Product Data, where applicable.
- 1.6.4 Record Product Data: Submit one (1) copy of each Product Data submittal. Mark one set to indicate the actual product installation where installation varies substantially from that indicated in Product Data.
- A. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - B. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - C. Note related Change Orders, Record Drawings, and Record Specifications, where applicable.
- 1.6.5 Miscellaneous Record Submittals: Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

1.7 OPERATION AND MAINTENANCE MANUALS

1.7.1 Assemble and submit one (1) complete set of operation and maintenance data indicating the operation and maintenance of each system, subsystem, and piece of equipment not part of a system. Include operation and maintenance data required in individual Specification Sections and as follows:

A. Operation Manuals:

1. Emergency and Standard instructions and procedures.
2. System, subsystem, and equipment descriptions, including operating standards.
3. Operating procedures, including startup, shutdown, seasonal, and weekend operations.
4. Description of controls and sequence of operations.
5. Piping diagrams.

B. Emergency Manuals:

1. Types of Emergencies: Fire, Flood, Gas leak, Electrical Power Outage, Chemical, Equipment failure and etc.
2. Instructions and Procedures for Shut-Down and Start-Up.

C. Maintenance Data:

1. Manufacturer's information, including list of spare parts.
2. Name, address, and telephone number of Installer or supplier.
3. Maintenance procedures.
4. Maintenance and service schedules for preventive and routine maintenance.
5. Maintenance record forms.
6. Sources of spare parts and maintenance materials.
7. Copies of maintenance service agreements.
8. Copies of warranties and bonds.

1.7.2 Organize operation and maintenance manuals into suitable sets of manageable size. Bind and index data in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, with pocket inside the covers to receive folded oversized sheets. Identify each binder on front and spine with the printed title "OPERATION AND MAINTENANCE MANUAL," Project name, and subject matter of contents.

2. PRODUCTS

2.1 MATERIALS

2.1.1 Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

3. EXECUTION

3.1 DEMONSTRATION AND TRAINING

- 3.1.1 Instruction: Instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
- A. Provide instructors experienced in operation and maintenance procedures.
 - B. Provide instruction at mutually agreed-on times. For equipment that requires seasonal operation, provide similar instruction at the start of each season.
 - C. Schedule training with Owner, through Construction Manager, with at least seven (7) calendar days' advance notice.
 - D. Coordinate instructors, including providing notification of dates, times, length of instruction, and course content.
 - E. Submit two (2) copies of instructional and demonstration of training procedures.
- 3.1.2 Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections. For each training module, develop a learning objective and teaching outline. Include instruction for the following:
- A. System design and operational philosophy.
 - B. Review of documentation.
 - C. Operations.
 - D. Adjustments.
 - E. Troubleshooting.
 - F. Maintenance.
 - G. Repair.

3.2 FINAL CLEANING

- 3.2.1 General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations and all other governing agencies having jurisdiction on the project.
- A. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project as acceptable to the Architect.
 - 1. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - 2. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - 3. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - 4. Remove tools, construction equipment, machinery, and surplus material from Project site.

5. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
6. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
7. Sweep concrete floors broom clean in unoccupied spaces.
8. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
9. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
10. Remove labels that are not permanent.
11. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
12. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
13. Replace parts subject to unusual operating conditions.
14. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
15. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
16. Clean ducts, blowers, and coils if units were operated without filters during construction.
17. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
18. Leave Project clean and ready for occupancy.

- 3.2.2 Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01 7700

SECTION 01 7836

WARRANTIES

1. GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- 1.2.1 This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.
 - A. General close-out requirements are included in Section "Project Close-out."
 - B. Specific requirements for warranties for the Work and products and installations that are specified to be warranted, are included in the individual Sections of Division 2-16.
 - C. Certifications and other commitments and agreements for continuing services to the Owner are specified elsewhere in the Contract Documents.
- 1.2.2 Disclaimers and Limitations – Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporated the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.
- 1.2.3 Separate Contracts – Each Contractor is responsible for warranties related to its own Contract.

1.3 DEFINITIONS

- 1.3.1 STANDARD PRODUCT WARRANTIES are pre-printed written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- 1.3.2 SPECIAL WARRANTIES are written warranties required by or incorporated in the Contract Documents, either to extend the time limits provided by standard warranties or to provide greater rights for the Owner.

1.4 WARRANTY REQUIREMENTS

- 1.4.1 Related Damages and Losses – When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of the warranted Work.
- 1.4.2 Reinstatement of Warranty – When Work covered by a warranty has failed and been corrected by replacement or rebuilding; reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- 1.4.3 Replacement Cost – Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.
- 1.4.4 Owner's Recourse – Written warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights or remedies.
- 1.4.5 Rejection of Warranties – The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- 1.4.6 The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

1.5 SUBMITTALS

- 1.5.1 Submit written warranties to the CM prior to the date certified for Substantial Completion. If the Architect's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.
- 1.5.2 When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the CM within (15) days of completion of that designated portion of the Work.

- 1.5.3 The Contractor shall submit a letter of warranty to the Owner, through the CM, which guarantees his workmanship for a period of one year from the completion date of the Contract unless otherwise indicated.
- 1.5.4 When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification ready for execution by the required parties. Submit a draft to the Owner through the CM for approval prior to final execution.
- 1.5.5 Form of Submittal – At final completion, compile two copies of each required warranty and bond properly executed by the Contractor, subcontractor, supplier or manufacturer. Organize the warranty documents into an orderly sequence based on the Table of Contents in the Project Manual.
- 1.5.6 Bind warranties and bonds in heavy-duty, commercial-quality, durable 3-ring vinyl covered, loose-leaf binders thick enough for the contents and available to receive standard sized paper.
 - A. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product and the name, address, and phone of the installer
 - B. Identify each binder on the front and the spine with the typed or printed title “Warranties and Bonds” with the Project Title and name of the Contractor.
- 1.5.7 When Operating and Maintenance Manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

2. PRODUCTS (Not Applicable)

3. EXECUTION

3.1 SCHEDULE OF WARRANTIES

- 3.1.1 Schedule – Provide warranties and bonds on products and installations as specified in the Technical Specification.

END OF SECTION 01 7836