



CONSTRUCTION MANAGER'S MANUAL

Project: Warren Middle School Addition

3501 New Lawrence Rd. Leavenworth, KS

5/15/2019

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1.00 INVITATION TO BID

Nabholz Construction Corporation (herein after referred to as “Nabholz” or “Construction Manager”) is accepting specialty contractor and supplier proposals for the below referenced project. All proposals or bids received shall be submitted in accordance with the requirements of the Construction Manager’s Manual (the “CM Manual”). Plans and bidding documents will be available via internet link, or at various reprographic locations. Bidders should contact Nabholz for access to bidding documents.

Bid Packages will be due at the time and date listed below. Additional instructions and details pertaining to bid submission are listed herein.

.01 Project Information

Project Name:	Warren Middle School Addition
Nabholz Job Number:	08-18-3063
Jobsite Address:	3501 New Lawrence Rd. Leavenworth, KS
Job Description:	This is an addition to the existing Warren Middle School. The addition will consist of a hardened area composed of structural steel, CMU and brick façade. In addition to the structure, there will be earthwork and underground utility rework to address.
LEED Certification:	N/A
Approximate Construction Start:	July 2019
Approximate Construction Finish:	December 2019
Are BIM/VDC Practices Required?	No
Is this a “Nothing Hits the Floor” Project?	Yes
Is this a CCIP Project? (Contractor Controlled Insurance Program)	Yes
Is this an OCIP Project? (Owner Controlled Insurance Program)	No
Is this job prevailing wage?	No
Is this job taxable?	No

.02 Bidding Procedure

Bid Date:	6/4/2019
Bid Time:	10:00 AM
Bid Submission Procedure:	Bids should be emailed to noe.turrubiarres@nabholz.com or bart.butler@nabholz.com .
Private or Public Opening:	Private
Bid Bond Required:	Bid Security for proposals greater than \$100,000 – 5% Bid Bond. Obligee is Nabholz Construction Corporation.
Bid Opening Location:	17300 W. 116 TH St. Lenexa, Kansas 66219
RFI/Bid Question Deadline:	2:00 PM on 5/29/2019
RFI/Bid Question Process:	Bidders shall submit questions in writing (email is preferred) by the established deadline. Questions should reference specific details, plan sheets, specifications, or bid manual sections.

.03 Prebid Meeting

Prebid Meeting Date:	5/28/2019
Prebid Meeting Time:	10:00 AM
Prebid Meeting Location:	3501 New Lawrence Rd. Leavenworth, KS (East Entrance)
Is the Pre-bid Mandatory	Attendance is not mandatory but is strongly encouraged and will be considered in final evaluation of proposals.

.04 Project Team Information

Nabholz Office:	17300 W. 116 TH St. Lenexa, Kansas 66219
Nabholz Project Manager:	Noe Turrubiartes, 913-747-5398, noe.turrubiartes@nabholz.com.
Nabholz Superintendent:	Steve Kepler
Nabholz Estimator(s):	Bart Butler, 913-393-6543, bart.butler@nabholz.com.
Architect:	DLR Group
Architect Contact:	Robyn O’Roark and Amber Beverlin
Architect Address:	7290 West 133 RD Street, Overland Park, Kansas 66213

.05 Site Specific Safety Considerations

Project Safety Considerations	1. Heavy equipment traffic
(in addition to Nabholz Safety Standards)	2. Demolition in reduced work area
	3. Working in close proximity of a occupied school.
	4. All contractors to follow silica regulations in accordance to OSHA policies.
	5. Traffic control
	6.
	7.

Construction Manager will use the standard Master Contract, Project Contract, and any amendments thereto, collectively, (the “Subcontract”), for all Subcontractors. Construction Manager will use standard Purchase Order (“PO”) for all Suppliers. Copies of these documents are available in electronic or hard copy upon request. We may also require performance and payment bonds for Subcontractors using Consensus 706 and 707 by an acceptable surety company or require other forms of surety.

Job Conditions and Job Safety in accordance with all safety regulations, including, federal (OSHA), state, and local, Construction Manager policy, and Subcontract or Purchase Order shall be required of all personnel on the Project including Subcontractors, Suppliers, and second tier Subcontractors and Suppliers. Reference Site-Specific Safety Considerations (Section 1.05 of this Manual) and Nabholz Safety Standards (Section 5.02 of this Manual). In addition, Construction Manager will enforce a NO SUBSTANCE ABUSE policy, and will not permit the use of tobacco on the Project site.

Construction Manager is an AA/EOE. All Women Owned Businesses (WBE), Minority Owned Businesses (MBE), and Disadvantaged Business Enterprises (DBE), including women, minority, disabled or veteran-owned business, are encouraged to submit a proposal or bid.

2.00 BIDDING INSTRUCTIONS AND SUPPLEMENTAL INFORMATION

.01 Instructions to Bidders

The following instructions apply to all proposals.

1. All bids shall be submitted on the bid form found in section 3.00 of this manual, inclusive of the scope of work specified in the applicable bid package.
2. Bid bonds are required for subcontractor proposals over \$100,000, unless stated otherwise in section 1.02.
3. Bidders must fulfill prequalification requirements in accordance with CM's trade contractor procurement policy prior to the award of any Bid Package contract. Prequalification Questionnaires and applicable supporting documents are required annually and are available at <https://www.nabholz.com/trade-contractors/> or by contacting the Construction Manager's ("CM's") office.
4. Modification to Bid Packages may be cause for rejection of proposal.
5. Bidders warrant they have visited the Project site prior to submission of proposals or have attended the pre-bid meeting(s) for the purpose of understanding and accepting all conditions in and around the Project site.
6. Bidders warrant that proposals are submitted in accordance with the requirements of CM Manual and Contract Documents. Bidders also warrant that proposals are submitted in accordance with the specification sections and drawings relating to the scope of the Bid Package.
7. Bidders must submit questions in writing to the CM no later than seven (7) days prior to the Bid Date or by the established RFI deadline. Responses to Bidders' RFI(s) will be distributed in the form of an Addendum or Clarification to all Bidders. Addenda may be issued during the bidding period. Bidders must acknowledge all addenda on the Form of Proposal. Addenda become part of the Contract Documents.
8. Bidders must, immediately notify CM in writing of errors, omissions, discrepancies, or noncompliance with applicable codes and regulations within the Contract Documents or any work which will not fit or properly function if installed as indicated in the drawings and specifications. This requirement does not relieve the Architect of design or professional service responsibilities.
9. Bidders must comply with all federal, state, local laws, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Subcontract or Purchase Order ("PO") throughout. Statutes will be deemed to be included in the Subcontract or PO, the same as though herein written out in full.

10. Subcontracts and PO will be awarded based on the lowest responsible qualified proposal, provided it is in the best interest of the Owner and/or CM. The Owner and/or CM reserves the right to reject any and all proposals and to waive any informality in the proposals.
11. To determine the lowest responsible qualified proposal, the CM will evaluate proposals based on the following considerations:
 - a. Total amount of Bidders' proposal, including Base Bid and Alternate Bids;
 - b. Acknowledgement of issued Addenda;
 - c. Bidders' bonding rate and capacity;
 - d. Sufficiency of Bidders' financial resources;
 - e. Evaluation of Bidder's labor rates;
 - f. Bidders' ability to perform in accordance with the Contract Documents;
 - g. Bidders' ability to perform without delay or interference to other trades or scopes of work;
 - h. Bidders' history of performance on previous projects with CM or Owner;
 - i. Responsibility and reputation of Bidders;
 - j. Evaluation of Bidders' safety record;
 - k. Bidder's history of compliance with applicable laws, codes, and regulations;
 - l. Quality and availability of Bidders' personnel and resources; and
 - m. Amount and nature of Bidders' current or pending litigation.
12. Bidders bonding capacity and rate will be evaluated by CM and Owner. The cost of providing Bidders Performance and Payment Bonds may be added to Base Bid to assist in evaluating the lowest responsible qualified proposal. Bidders will be required to use the ConsensusDocs 706 and 707 for bonds, as provided at <https://www.nabholz.com/bidding-and-contract-documents/>
13. CM may perform an investigation of Bidders' financial condition. Bidders agree to assist in any such investigation, which may include a request for Bidders most recent audited or reviewed financial statements, a review of Bidders "Business Information Report" as prepared by Dun & Bradstreet, Inc., or discussions with Bidders' surety and banking agents.
14. Bidders are required to provide a price for each specified Alternate Bid, Unit Price, or Price Breakout that affects Bidders' Bid Package.
15. Bidders are required to provide unit prices for all labor classifications that apply to Bidder's Bid Package. Labor unit prices will be used to calculate labor for all change order requests.
16. The Contract Documents will include all documents identified as Contract Documents in the Agreement between the Construction Manager and Owner, The Master Contract & Project Contract between Construction Manager and Subcontractor, as well as the following attachments and any Addenda and Supplementary Conditions.
 - a. Exhibit A – Bid Package Description
17. All attachments and exhibits to the Contract between Construction Manager and Owner shall be recognized by Subcontract or PO between Bidders and Construction Manager.
18. Bidders' proposal shall include, but not limited to, the following costs:

- a. All applicable Sales Tax and Freight on Board to Project site unless stated otherwise in the trade specific Bid Package.
- b. Prevailing wage rates and documentation if required by Contract Documents.
- c. Employee orientation, safety training, infection control training, and photo ID badging, as required.
- d. Attendance at preconstruction and project coordination meetings, as required by specifications and Construction Manager's Quality Management System ("QMS"). Subcontractor is required to send foreman, project manager or owner to all weekly Project site coordination meetings pertaining to the Scope of Work and/or as required by Construction Manager's Project Superintendent. Employees attending meetings must have the authority to make commitments on Subcontractor's resources (manpower, equipment, tools, etc.) to maintain Project Schedule or meet milestone dates.
- e. Delivery of submittals, including but not limited to shop drawings, product data, samples, mock-ups, operating service and maintenance manuals, Material Safety Data Sheets (MSDS), and other documents and submittal materials required by the specifications.
- f. All product testing documentation required by specifications, including test certificates
- g. Coordination for field testing and inspections required by specifications and Construction Manager's QMS. Laboratory testing by others; any re-testing required due to initial failed testing under Scope of Work is the responsibility of Subcontractor. This requirement does not apply to air test & balance tests
- h. Hook-up and consumption charges for temporary utility and telephone services for Bidders' trailers and sheds, including maintenance of temporary services and removal of services when no longer needed.
- i. Task lighting and special electrical service requirements, including but not limited to:
 - i. Electrical Subcontractor will provide temporary power to accommodate the use of power tools, lighting, and masonry saws.
 - ii. Temporary electrical outlets will be spaced so that the entire area of construction can be reached by power tools on a single 100-foot extension cord; and
 - iii. General temporary illumination will be maintained at a level of 5 foot-candles.
- j. Telephones, computers, and internet access.
- k. Drinking water and ice.
- l. Storage sheds, office trailers, and labor sheds.
- m. Portable, gas-driven welders.
- n. All parking for employees shall be coordinated with Construction Manager's Project Superintendent at Bidders' expense.
- o. All material handling equipment, including but not limited to hoisting with certified operators, bracing, shoring, scaffolding as necessary to move materials and complete Scope of Work.
- p. Daily clean up and removal of all identifiable debris, including but not limited to:

- i. Site Cleanup. Subcontractor shall keep the Project site and work areas clean at all times and must sweep each work area and remove all debris prior to discontinuing work in each area. If the Subcontractor fails to immediately commence compliance with cleanup duties within forty-eight (48) hours after written notification from the Contractor of noncompliance, the Contractor may implement appropriate cleanup measures without further notice and deduct the cost thereof from any amounts due or to become due the Subcontractor under this Contract. Unless otherwise specified or required by law or regulation, all debris will be sorted as required and deposited on the Project site at a location designated by the project superintendent. Subcontractor shall comply with Contractor's on-site recycling and refuse programs. Subcontractors shall follow any Nabholz sustainability plans and programs regardless of whether the job is certified by the U.S. Green Building Council, Green Globes, or any other building certification entity. Temporary protection of work and stored materials. Protect adjacent materials and finishes. Damage caused by performing this work will be the responsibility of this trade contractor.
 - q. Weather protection as required to protect and perform the Work unless specifically excluded in Bid Package.
 - r. All applicable trade permits, licenses, and inspection fees, including bonds required for the Scope of Work.
 - s. Engineering layout, professional surveys, grade control and field dimensions associated with the Scope of Work.
 - t. Touch-up painting of any prefinished items as required.
 - u. Dewatering of all excavations associated with the Scope of Work, as required, preserving structural integrity and workability.
 - v. Provide enclosures, temporary heat, blankets, additives, etc. as needed to protect Work and materials from cold weather conditions.
 - w. Removal of existing materials in existing facilities, if considered part of the Scope of Work and legally dispose of offsite.
 - x. Provide and install firestopping at penetrations in fire walls resulting from Work in accordance with specifications and code requirements. Allow 5-10% destructive testing. Obtain approved submittal before installing firestopping.
19. Bidders shall strictly comply with Construction Manager's safety policies and OSHA safety regulations. Construction Manager's complete Safety Standards can be reviewed at Construction Manager's offices or <https://www.nabholz.com/bidding-and-contract-documents/> Hard hats and safety glasses, and high-visibility clothing are mandatory for all Project site employees during all phases of the project and must be worn at all times. Prior to working on a Construction Manager's Project, the viewing of Construction Manager's Safety Video by the construction personnel of all Bidders is a mandatory requirement. Hardhat stickers will be given to those construction workers who are confirmed to have viewed the

safety video. All workers must have the current calendar year hard hat sticker on their hard hats in order to perform work on Construction Manager's Project.

20. Compliance with all requirements of Construction Manager's substance abuse and security policies.
21. Compliance with Construction Manager's insurance requirements. Reference Section 5.01 of the CM Manual.
22. Bidders' work shall strictly comply with all adopted Building Codes. Any code-related conflict in drawings and specifications shall be clarified and approved by the local Code Authority prior to installation.
23. Bidders shall be held responsible for submission of all submittals within three weeks of Notice of Intent to Award, including but not limited to shop drawings, product data, samples, mock-ups, operating, service and maintenance manuals, material safety data sheet information, and other submittals required by the specifications and Construction Manager's QMS. Submittals to be checked and signed off on by Bidders' representative indicating a review has been completed. Shop Drawings should be started upon Notice of Intent to Award and completed expeditiously to not delay construction. Coordinate with existing conditions and other Subcontractors as needed for locations, sizes and penetrations required. Color samples to be treated as part of the submittal process.
24. Bidders shall provide closeout documents per Contract Documents and Master Contract including, but not limited to, attic stock, as built drawings, testing, warranties and equipment operation manuals before Substantial Completion as a prerequisite to Final Payment. Provide equipment operation instructions to Owner representative, as required.
25. Bidders shall provide warranty from date of Substantial Completion of Subcontractor's Work and for the duration per specification. All Warranty and call-back Work resulting from the Scope of Work shall be at no cost to the Owner or Construction Manager. Temporary use of equipment during construction will not affect the Warranty or call-back periods required by the specifications.
26. Bidders may not remove or replace its Superintendent or Foreman without prior written consent from Construction Manager.
27. Bidders shall coordinate delivery of required materials associated with the Bid Package. Bidders shall provide equipment and personnel necessary to unload, stack, protect, and store materials on Project site. Bidders shall inventory all delivered items and inspect for damage or missing items. Note damaged or missing items on the bill of lading. Construction Manager is not responsible for damaged or misplaced materials or equipment. Bidders shall file all damage claims with insurance carrier(s). Placement of staged items shall be coordinated with Construction Manager's Project Superintendent.
28. Stored materials are to be protected from heat and humidity as required by the manufacturer. All materials must be tagged with Project and Construction Manager's name. The items above are subject to the specifications and Owner requirements. Coordinate location of Project site storage containers with Project Superintendent.
29. Bidders shall coordinate Work with the Construction Manager and other trades affecting their Scope of Work.

30. Bidders shall contact the Project Superintendent if the substrate is unacceptable before installation of the Scope of Work. Installation of materials over substrate implies acceptance of substrate.
31. Time is of the essence. Provide a detailed schedule in bar chart format for the Scope of Work within 10 days of receiving Notice of Intent to Award. Comply with the Project Schedule furnishing necessary resources, including overtime, to maintaining project schedule. Should Bidders fall behind schedule due to conditions within Bidders' control, Bidder shall implement whatever means are necessary to accelerate the Bidders' Scope of Work until it is in compliance with the schedule. The cost of accelerating the Work shall be borne by the Bidders. Certain areas may be completed earlier than originally indicated on schedule. Subcontractor must be prepared for any minor adjustments to the schedule as Work progresses.
32. Time lost due to weather conditions must be made up by Bidders.
33. Bidders shall comply with the established work hours or Owner-specified durations necessary to minimize impact on Owner operations.
34. Construction Manager maintains ownership of all schedule free float.
35. Bidders shall sequence Work as directed by Construction Manager.
36. Bidders must be and have been regularly engaged in Work to be performed for the past 5 years using at least partially their own workforce skilled in that type of work. Project site foreman must be employed directly by Subcontractor and professionally qualified for Work to be performed with at least 10 years' experience.
37. Bidders must participate and comply with the Construction Manager's QMS as relevant to the Scope of Work.
38. Punch lists issued by Construction Manager, Architect, or Owner will be completed within fourteen (14) calendar days from the date of issue. If Bidders fails to comply with this requirement, Construction Manager reserves the right to perform the Work for the Bidders and back-charge the Bidders for the cost of the Work.
39. Prior to commencing work, bidders must provide company specific safety plan and silica exposure plan to superintendent, in either digital or physical copy.

.02 Declaration Regarding Prohibition of Sex Offenders and Convicted Felons on School Premises

(TO BE SUBMITTED PRIOR TO AWARD FOR PROJECTS PERFORMED ON SCHOOL PREMISES)

_____ (“Subcontractor”) hereby acknowledges that it has a contract with Nabholz Construction for Work to be performed on the _____ (Name of School District or School Facility Project) premises. This applies to both green field and renovation/expansion school projects. Subcontractor declares that it has verified (and will continue to verify at least annually) that none of its employees and none of their sub-tier subcontractor employees working on the school premises noted above have been convicted, entered a plea of guilty or a plea of nolo contendere, or received a suspended sentence for a crime or an attempt a crime in the State of Arkansas, the United States or any other state for

1. any sex offense subject to a Sex Offenders Registration Act, and/or
2. any felony offense within the last ten (10) years unless such an employee has received a presidential or gubernatorial pardon. This restriction does not apply to persons who have been convicted of a felony within ten (10) years and who are volunteers performing community service hours under court order, or who are performing services under a supervised work release program.

Subcontractor acknowledges that it is unlawful for any person who is a registered pursuant to the Sex Offenders Registration Act to work with children or to work on school premises.

DECLARATION BY SUBCONTRACTOR

The undersigned _____ represent that he/she is the Owner or an officer of _____, who has the authority to make this declaration to Nabholz Construction.

I declare under oath that no employee working on school premises under the authority of the above-named company or business has been convicted in this State, United States or another state of any sex offense subject to the Sex Offenders Registration Act or is subject to state or federal sex offender registrations provisions. I further declare that no employee working on school premises under the authority of the above-named company or business has been convicted of a felony offense within the past ten (10) years in this State, the United States, or another state.

DATED this ____ day of _____, 20____.

Subcontractor _____

By _____ Title _____

Attest: _____

Subscribed and sworn to before me this

day of _____, 20____.

Notary Public

.03 Bid Affidavits

NOT

APPLICABLE

.04 Wage Requirements

NOT PREVAILING WAGE PROJECT

3.00 BID PACKAGES AND BID FORMS

.01 General Scope Requirements

All trade specific bid packages shall be inclusive of the General Scope Requirements listed below.

1. Refer to Instructions for Bidders, for general requirements.
2. Subcontractor agrees to follow all safety procedures and safety regulations of Nabholz, including those that are more stringent than Subcontractor's own safety policy or OSHA standards.
3. All employees must wear hard hats, eye protection, and high visibility vests at all times on site.
4. Subcontractor is responsible for the protection of the SWPPP devices in place. If Subcontractor is required to move a SWPPP device in order to complete work, Subcontractor must replace that device as installed. Coordinate removal and replacement of SWPPP device with Project Superintendent.
5. Construction Manager will provide layout to building corners. Subcontractor is responsible for layout beyond these points.
6. Coordinate on-site employee parking with Project Superintendent.
7. Coordinate location of on-site storage containers with Project Superintendent
8. Employees shall avoid harassment of students, faculty, or staff. Employees who violate this requirement may be removed from the jobsite by Project Superintendent.
9. Subcontractor will actively participate in the Nabholz Quality Management System.
10. Subcontractor agrees to follow the Project Schedule and meet the milestone dates. Certain areas may be made earlier than originally indicated on Schedule. Subcontractor must be prepared for any minor adjustments to the Schedule as work progresses.
11. Subcontractor must attend weekly coordination meetings. Employees attending meetings must have the authority to make commitments on manpower to maintain Project Schedule or meet milestone dates.
12. All Subcontractors and Suppliers will be required to write a site-specific safety plan to address Nabholz 12 Commitments To Live By (C2LB).
13. The Project will be staged on an existing, occupied, operating school campus. Avoid interaction with owner's employees, students, teachers and/or staff. Any harassment of personnel listed above will not be tolerated. All questions or comments from such should be referred to Project Superintendent. Violation of this requirement will not be tolerated and may be grounds for immediate dismissal from Project and/or legal action.
14. Deliveries of building materials will give right of way to school bus traffic during drop-off and pick-up times.
15. Construction activities that generate high decibel noise levels must be scheduled and coordinated with Construction Manager's Project Superintendent.

16. Construction Manager will coordinate with the school's Principal to work within academic and testing schedules.
17. In accordance with Kansas State Law, smoking, the use of tobacco, or the use of products containing tobacco in any form is prohibited on any property owned or leased by a public-school district.
18. Note LEED Certification is a stated goal of the Project. All members of the construction team are required to actively participate in documentation and enforcement of LEED credit requirements. Participation will include, but not limited to the following activities:
 - a. Compliance with and protection of Erosion and Sedimentation Control Plan;
 - b. Separation of construction debris into waste and recycling containers provided by the Construction Manager;
 - c. Documentation of recycled content of installed materials;
 - d. Documentation of sourced regional materials; and
 - e. Protection of stored or installed absorptive materials from moisture damage.
19. Note Virtual Building Design will be part of this project. Refer to Section 005.17 Virtual Design Construction Protocol and bid packages for additional information.
20. Prior to award, Subcontractors will be required to complete the Declaration Regarding Prohibition of Sex Offenders and Convicted Felons on School Premises form located in Section 3.02 or such declarations otherwise required by the Owner.

.02 Bid Form

Date of Bid _____

Submitting Company ("Bidder")

Company Name _____

Project State License Number _____

Company Representative

Name _____

Email Address _____

Cell Phone _____

Scope of Work

Bid Package Number _____

Bid Package Description _____

Addenda

Bidder acknowledges receipt of the following addenda:

Addendum # _____ Dated _____

Addendum # _____ Dated _____

Addendum # _____ Dated _____

Base Bid

By submitting this proposal form, bidder acknowledges receipt of and compliance with Nabholz minimum insurance requirements, Master Contract Agreement, Project Contract Agreement, Performance and Payment Bond requirements, Purchase Order, CCIP Program Addendum, and Safety Standards.

Bidder agrees to complete the Scope of Work listed below for a lump sum of:

\$ _____

Alternates

- 1. Alternate Description Add/Deduct \$ _____
- 2. Alternate Description Add/Deduct \$ _____
- 3. Alternate Description Add/Deduct \$ _____
- 4. Alternate Description Add/Deduct \$ _____

Voluntary Alternates

- 1. _____ Add/Deduct \$ _____
- 2. _____ Add/Deduct \$ _____

Work in Progress & Project Specific Qualifications

Bidder shall submit with their proposal a Work in Progress (WIP) Report that lists the ten (10) largest projects currently being constructed. Moreover, final evaluation of Bidder’s proposal shall be conditional on review of WIP Report, and Bidder’s experience with similar scope and projects.

Completion Time

All Work shall be completed within the schedules prepared by and agreed to by Nabholz. Bidder shall provide adequate manpower and submit documentation for approval necessary to work within the timeframe scheduled. Estimated time period for construction is July 1, 2019 – December 6, 2019.

Unit Pricing

Hourly rates – attach a separate sheet for all relevant labor and equipment rates that are to be used for any other change order pricing.

Bonding

Bond Rate Cost in Percent _____

Bidder can provide a Performance and Payment Bond and can meet the requirements set forth in the “Project Contact”.

(circle one)

Yes/No

Name of Surety Agent _____

Surety Agent Phone
Number _____

Acceptance of Contract Forms

Bidder acknowledges that they have reviewed and accept the Contract Performance and Administration, Sample Master Contract, Sample Project Contract, Payment and Performance Bonds, Sample Purchase Order, Contractor-Controlled Insurance Program Addendum to Master Contract and the Nabholz Safety Standards forms linked in Section 6.04. Proposed modifications must be submitted with bid.

Signature

Bidder agrees that this proposal remains valid for a period of 60 days. Bidder understands that Nabholz and the Owner reserve the right to reject any or all bids. Bidder acknowledges Nabholz minimum insurance requirements and understands that the Master Contract shall be the basis of any contract offered by Nabholz Construction to Bidder. Proposed modifications of Master Contract language must be submitted with bid. Attach additional sheets if necessary. Upon receipt of notice of acceptance of bid, Bidder agrees to execute and return the contract and required insurance certificates within two weeks of notification.

By _____

Title _____

Printed name of individual signing this proposal _____

Contact phone number _____

Date _____

END OF PROPOSAL FORM

01.0 Final Cleaning

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide final construction cleaning service.
2. Time is of the essence. Furnish adequate manpower to clean areas of the building so as not to adversely impact move in by the owner.
3. Cleaning compounds must be compatible with surfaces.
4. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Wipe down all surfaces.
2. Clean all interior glass and mirrors.
3. Clean all exterior window glass.
4. Vacuum sweep carpet.
5. Wet mop vinyl floors.
6. Dust clean all countertops and millwork drawers and cabinets.
7. Clean light fixtures, sinks and tub plumbing fixtures and trim.

Section C: Project-Specific Exclusions:

1. Provide (2) mobilizations in estimate.

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

Unit Price 1.

END OF BID PACKAGE

02.0 Demolition

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 024119 – Selective Demolition

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Subcontractor must comply with all environmental laws during demolition.
2. Subcontractor must provide containers and transportation for all demo debris removal for all demolition.
3. Include all road clean-up required by demolition activities.
4. Provide all barricades, traffic control and flagmen required by demolition activities.
5. All asbestos materials will be abated and removed by the Owner outside of the scope of this contract.
6. All materials removed under this scope of work will be disposed of on a daily basis. Any materials to be salvaged shall be turned over to the Owner and delivered to a location on site as designated by the Owner. Reasonable care shall be exercised in removing any and all items to be retained.
7. Ensure utilities are disconnected prior to the commencement of demolition activities.
8. Coordinate demolition sequence with the project superintendent.
9. Include all necessary temporary waterproofing for exterior walls and roof to prevent entry of water into the existing building. Temporary shelters and partitions must be maintained under this bid package until new construction allows for removal, or as dictated by the Construction Manager.
10. Include all means and measure to protect existing finishes, materials, structures and equipment from damage and dust due to demolition activities. Damage of such will be repaired at the expense of the demolition contractor.
11. Include all temporary shoring and bracing of any structures or devices which are affected by demolition activities. When necessary, engineering of shoring/bracing plan to be included in this package.
12. Demolition must be performed in strict coordination with Mechanical and Electrical trades and in strict accordance with the Owner to minimize disturbances or interruptions to operations. Note that demolition of electrical, plumbing, mechanical and fire sprinkler services is not included in this bid package and is included with those trades in their respective bid packages.
13. Leave job site “shovel clean” in areas of building demolition.
14. Leave jobsite “broom clean” in areas of interior demolition.
15. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect’s substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide demolition of window and sills as indicated in the construction documents.
2. Provide demolition of aluminum frames systems as indicated in the construction documents.
3. Provide temporary infills for windows and aluminum frames removed throughout demo phase. Include removal of infills at request of project superintendent.
4. Remove existing corner beads and provide joint reinforcement and compound between new and existing gypsum wallboard.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

03.0 Concrete

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 03300 – Concrete In Place Concrete
- Section 051200 – Structural Steel Framing (For Reference)
- Section 053100 – Steel Decking (For Reference)
- Section 054000 – Cold-Formed Metal Framing (For Reference)
- Section 055000 – Metal Fabrications (As Required Per Scope)
- Section 072100 – Thermal Insulation (As Required Per Scope)
- Section 079200 – Joint Sealants (As Required Per Scope)
- Section 079500 – Expansion Control (As Required Per Scope)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Prepare and construct all building concrete assemblies, including but not limited to drilled piers, wall and column foundations, pile caps, footings and mats, grade beams, slabs on grade, ramps, trenches, pits, equipment pads, below-grade walls, structural slabs, columns, beams, and slabs on deck as indicated in the construction documents. Prepare and construct all site concrete assemblies, including but not limited to concrete paving, drainage swales, curbs and gutters, curb inlet caps, pedestrian paving, steps, ramps, stoops, mow strips, equipment and transformer pads, light pole bases, light bollard bases, flag bases, site foundations and slabs as indicated in the construction documents.
2. Furnish and install all expansion and construction joints including keyways, dowels and saw cutting as required.
3. Include all associated excavation, backfill, and compaction (both interior and exterior perimeters). Move spoils off-site.
4. Backfill compaction must meet requirements of specifications.
5. Include formwork, bedding and leveling materials, reinforcing steel and mesh, tie wire, bolsters and supports, void forms, board insulation, concrete ready-mix, methods of conveyance (i.e. pumps, buggies), admixtures, curing and hardening compounds, concrete accessories, joints and weeps, sleeves, water stops, drain boxes and covers, filter fabrics and moisture membranes, finishing, and rubbing.
6. Install all embedded items (including bollards, sleeves, bolts) furnished by others.
7. Furnish, install, and compact gravel base at concrete flatwork where required.

8. Provide and install truncated warning devices if required.
9. Grout all base plates as required.
10. Furnish and install underslab vapor barrier if not polyfilm.
11. Install and maintain a designated concrete wash down area.
12. Provide all cold weather and/or hot weather protection as required to maintain Project Schedule in accordance with ACI standards.
13. Provide generator power if electric is not readily available.
14. Unless more stringent requirements are specified, maintain maximum flatness tolerance of 1/8 inch in 10 feet for all floor slabs.
15. Final surfaces shall be as specified and free from cracks, voids, and spalls. Positive drainage of water shall be provided on traffic surfaces, without ponds or water stands. Should final surfaces contain any of the above mentioned, items shall be repaired at no additional cost to the Owner.
16. Replace grades to original condition in affected areas adjacent to work performed.
17. Concrete curing shall be in accordance with the construction documents and ACI.
18. Include temporary shoring of metal deck as required to support concrete materials.
19. Include foundation layout with base line established by professional surveyor. Check and maintain survey control points and layout anchor bolts.
20. Coordinate with plumbing and electrical trades regarding work that is under or in concrete.
21. Coordinate city inspections.
22. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide moisture vapor barrier reduction mixture as indicated in the construction documents.
2. Provide all concrete mock ups as indicated in the construction documents.
3. Provide and install elevated slab as indicated in construction documents.
4. Contractor to notify CM if face of existing footing extends into min. footing dimension for review.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

04.0 Masonry

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 033000 – Unit Masonry (In Its Entirety)
- Section 051200 – Structural Steel Framing (As Required Per Scope)
- Section 054000 – Cold-Formed Metal Framing (For Reference)
- Section 055000 – Metal Fabrications (As Required Per Scope)
- Section 072100 – Thermal Insulation (As Required Per Scope)
- Section 072726 – Fluid Applied Membrane Air Barriers (As Required)
- Section 076200 – Sheet Metal Flashing and Trim (As Required Per Scope)
- Section 079500 – Expansion Control (As Required Per Scope)
- Section 081113- Hollow Metal Doors and Frames (As Required Per Scope)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide and construct all masonry assemblies as indicated and specified in the construction documents.
2. Perform all work from approved shop drawings and/or product data. Confirm that you have the latest approved “field use” drawings prior to start of work.
3. Provide a sample mock-up panel as soon as possible, in a location as directed by the Project Superintendent. The panel will clearly show all CMU, grout, reinforcing, anchoring, seismic (if required) ties, flashing, brick and mortar (per required color selection(s), and other materials as required for a complete review and approval of the quality of finished product.
4. Coordinate all lay down and staging areas with Project Superintendent at least 48 hours in advance of all material deliveries.
5. Provide all layout and field measurements for this work including layout for embedded items.
6. Prepare and clean footings (as required) prior to starting masonry work.
7. Layout, drill, and epoxy reinforcing at masonry walls when shown on the contract documents.
8. Provide shoring and bracing of walls, masonry lintels, and bond beams to facilitate this work.
9. Coordinate with other trades as required for block outs, cutouts, and the installation of access doors and plumbing fixture chairs.
10. Coordinate location and placement of steel embeds with structural steel erection subcontractor.

11. Provide standard and special shaped masonry units, mortar, grout, knock-out panels, reinforcing steel, precast, masonry joint reinforcing, anchors, ties, embedded flashing, and other masonry accessories as may be required to complete the masonry assemblies as detailed and specified.
12. Include all rigid insulation behind masonry as required.
13. Install weather barrier flashing provided at each masonry tie or penetration.
14. Furnish and install cavity wall insulation when shown in contract documents.
15. Provide all anchor and attachment to structural members as required per the contract documents.
16. Set hollow metal frames furnished by others. Including grouting of frames as required.
17. Install steel lintels and embed plates furnished by others.
18. Include protection of masonry cells and cavity between masonry walls from infiltration of moisture at the end of each work day. Protect space between masonry and sheathing.
19. Cover and protect all slab areas that will receive special finishes as directed by Construction Manager.
20. Repair divots bigger than 1/2" in diameter and patch block as directed by Construction Manager.
21. Include rubbing of exposed unit masonry and final cleaning.
22. Provide and specify allowance on bid form for cold-weather and hot-weather protection per construction documents necessary to maintain Project Schedule.
23. Include flue liners, ash dumps and fireplace units if required.
24. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide and install all masonry rebar and dowels.
2. Provide and install all masonry infills as indicated in the construction documents
3. Provide masonry washing while protecting adjacent finishes.
4. Provide light general labor for required special inspections.
5. Provide and install expansion joints in masonry assemblies.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. Provide voluntary alternate price on the bid form for cold weather provisions, including temporary heat, enclosures, blankets, tenting, and other means necessary to maintain schedule in cold weather.

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

05.0 Structural and Miscellaneous Steel (Supply)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 042000 – Unit Masonry (As Required Per Scope)
- Section 051200 – Structural Steel Framing
- Section 053100 – Steel Decking
- Section 055000 – Metal Fabrications
- Section 054000 – Cold-Formed Metal Framing (For Reference)
- Section 077200 – Roof Accessories (As Required Per Scope)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. All steel work shall be fabricated from approved shop drawings. Confirm that you have the latest approved “field use” drawings prior to start of work.
2. Fabricate and deliver all structural steel columns, beams, tube framing, brace frames, gusset plates, bridging, joists, decking, edge and other angles, bent plates, connectors, studs, and fasteners as indicated in the construction documents.
3. Fabricate and supply anchor bolts, loose lintels, wheel guards, railings, and pipe bollards as indicated in the construction documents.
4. Fabricate and deliver all rough hardware, bearing and leveling plates, miscellaneous steel trim, shelf and relief angle, tread plate and supports, railings and handrails and metal pan stairs.
5. Fabricate and deliver elevator pit ladder, hoist beam, and sump pit grate.
6. Furnish miscellaneous framing/support for mechanical, plumbing, and electrical equipment.
7. Fabricate and deliver metal deck closures.
8. Provide all sleeve anchors and any anchors that connect steel to other materials.
9. All steel exposed to view shall be oil free, have welds ground smooth, and be of sufficient quality for an exposed and finished surface.
10. Include prime painting (galvanized where required by the bid documents) and touch-up (where required) as indicated in the construction documents.
11. Include all freight to jobsite. Coordinate all lay down and staging areas with Project Superintendent at least 48 hours in advance of all material deliveries. Coordinate delivery schedule with steel erection subcontractor for offloading.

12. Provide copies of current welder's certifications prior to the start of any work. Keep those records on file at the job trailer and keep them current at all times.
13. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide structural steel required for the installation of hanging mechanical units. Refer to construction documents for specifics.
2. Provide all required steel for the welded rebar cage at roof and wall openings as indicated in the construction documents.
3. Provide allowance for hardened area pipe penetrations shields as indicated in the construction documents. Ref to detail 22, 31/M4.1
4. Provide stainless steel mounted on walls as indicated on interior elevations.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

05.1 Structural and Miscellaneous Steel (Installation)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 042000 – Unit Masonry (As Required Per Scope)
- Section 051200 – Structural Steel Framing
- Section 053100 – Steel Decking
- Section 054000 – Cold-Formed Metal Framing (For Reference)
- Section 055000 – Metal Fabrications
- Section 077200 – Roof Accessories (As Required Per Scope)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. All steel work shall be erected from approved shop drawings furnished by the steel fabricator. Confirm that you are working from the latest approved “field use” drawings prior to start of work.
2. Erect all structural and miscellaneous steel furnished in Bid Package 009.05.01 Structural and Miscellaneous Steel (Supply).
3. Include off-loading of materials. Coordinate all lay down and staging areas with Project Superintendent at least 48 hours in advance of all material deliveries.
4. Protect surfaces from welding equipment and activities.
5. Provide temporary bracing and shoring as needed to perform this scope of work.
6. Include all materials and equipment for stud welding if required including power source.
7. Include base plate elevations.
8. Protect existing structure from erection activities.
9. All steel exposed to view shall be oil free, have welds ground smooth, and be of sufficient quality for an exposed and finished surface.
10. Provide copies of current welder’s certifications prior to the start of any work. Keep those records on file at the job trailer and keep them current at all times.
11. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect’s substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide installation of structural steel required for the hanging mechanical units. Refer to construction documents for specifics.
2. Provide installation for steel welded rebar cage at the roof and wall opening as indicated in the construction documents.
3. Provide installation of hardened area pipe penetrations shields as indicated in the construction documents. Ref to detail 22/M4.1

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

06.1 Finish Carpentry

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 054000 – Cold-Formed Metal Framing (For Reference)
- Section 061053 – Misc. Rough Carpentry (As Required Per Scope)
- Section 061600 – Sheathing (As Required Per Scope)
- Section 081113 – Hollow Metal Door Frames (As Required Per Scope)(Install Only, material by others)
- Section 081416 – Flush Wood Doors (As Required Per Scope) (Install Only, material by others)
- Section 087100 – Door Hardware (As Required Per Scope) (Install Only, material by others)
- Section 092216 – Non-Structural Metal Framing

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Include all off loading, storage, and shakedown of materials.
2. Immediately upon discovery, bring any damage to the wood doors incurred during to the attention of Project Superintendent.
3. Immediately upon discovery, bring any discrepancy between the hollow metal, hardware and wood door schedule to the attention of the Project Superintendent.
4. Install all hollow metal and solid core wood doors.
5. Install all rated doors according to the appropriate underwriter's label.
6. Install all commercial door and electromechanical hardware.
7. Install all door cylinders except cylinders for aluminum or glass doors.
8. Install temporary cores for use during construction. Permanent cores and keys are installed by Owner.
9. Subcontractor is responsible for all required field measurements.
10. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Prior to installation of drywall, this bidder will visit the site and inspect hollow metal frames installed in the metal stud/drywall subcontractors as to what the reason for rejection is per door.
2. Make final adjustments to doors and hardware for proper clearance and operation.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

06.2 Millwork

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 061053 – Misc. Rough Carpentry (As Required Per Scope)
- Section 061600 – Sheathing (As Required Per Scope)
- Section 073200 – Joint Sealants (As Required Per Scope)
- Section 123216 – Manufactured Plastic Laminate- Faced Casework (As Required Per Scope)
- Section 123623.13 – Plastic Laminate Clad Countertops (As Required Per Scope)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide samples of any exposed wood grain product and all millwork hardware with shop drawings submittal. Specifically request approval of color and finish selections of all laminate and hardware on shop drawings.
2. Visit project site and take field measurements before fabrication. Coordinate and schedule site visit with Project Superintendent.
3. Coordinate all material deliveries and sequence of installation with Project Superintendent no later than 30 days prior to start of work.
4. Furnish and install all cabinet units, shelving units, vanity units, countertops, splashes, running trim, display cases and window sills as indicated in the construction documents.
5. Provide a sufficient amount of scribes and/or fillers as necessary for a complete installation of millwork.
6. Include all associated brackets and supports.
7. Furnish and install finish hardware for millwork and cabinetry including key locks per construction documents.
8. Furnish and install solid surface tops, sills and treads per contract documents.
9. Provide all necessary cut outs for plumbing and electrical fixtures as required, and all cut outs as required for appliances. Provide grommets at cut-outs for power or data cords.
10. Furnish and install approved and matching colored caulking for each color of plastic laminate or solid surface material supplied.
11. Set and adjust all door and drawer margins after installation at the project site.
12. Remove glues and resins, clean out wood and plastic laminate shavings from inside drawers and compartments, and wipe all dust from all millwork immediately after installation.

13. Provide protection of countertops after installation, to be removed at the direction of the Construction Manager.
14. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Modify existing casework as indicated in the construction documents.
2. Provide and install solid surface tops and window sills.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

07.0 Waterproofing, Dampproofing, Joint Sealants

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 072726 – Fluid Applied Membrane Air Barriers
- Section 078413 – Penetration Fire-stopping (For Reference)
- Section 076200 – Sheet Metal Flashing and Trim (As Required Per Scope)
- Section 079200 – Joint Sealants
- Section 079500 – Expansion Control
- Section 079500 – Concrete Paving Joint Sealants
- Section 088000 – Glazing (As Required Per Scope)
- Section 084113 – Aluminum Entrances and Storefronts (As Required Per Scope)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide weather-tight storage and heat to protect materials from freezing.
2. Provide all necessary surface preparation.
3. Provide waterproofing system(s) for below-grade surfaces, including membrane, flashing, protection board, rigid insulation, and drainage mat as required by the construction documents.
4. Provide dampproofing for below-grade and above-grade surfaces where unexposed to view per construction documents.
5. Provide all joint sealants required or indicated at exterior and interior masonry constructed walls and partitions.
6. Provide water-repellent and elastomeric coatings for exposed concrete and masonry surfaces. Clean surfaces prior to commencement of work per construction documents.
7. Provide joint sealants and incidentals as necessary and per the bid documents at building exterior to secure a water-tight building envelope.
8. Include joint sealants in and surrounding site paving.
9. Confirm that materials furnished for this Bid Package are compatible with other materials furnished for other Bid Packages.
10. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide and install sealants at interior and exterior perimeter of aluminum windows, entrances, storefronts and curtain walls. The glazing contractor will provide sealants within glazing systems.
2. Provide and install caulking at the termination point of sheet metal flashings and panels for watertight system.
3. Exclude firestopping in masonry assemblies, including but not limited to, steel penetrations, beam pockets, top of walls, MEP/FP penetrations.
4. Provide and install all concrete joint sealants, interior and exterior.
5. Sealants within the glazing system is by the glass/glazing contractor.
6. Provide and install all exterior and interior expansion joint connections, provide custom colors to match existing and new building connections.
7. Provide and install all sealants at interior and exterior perimeter of aluminum windows, entrances, storefronts, and curtain walls will be by the waterproofing contractor.

Section C: Project-Specific Exclusions:

1. Exclude firestopping in masonry assemblies, including but not limited to, steel penetrations, beam pockets, top of walls, MEP/FP penetrations.
2. Exclude applicable Sales & Use Tax from bid.

Section D: Project Alternates:

1. N/A.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

07.3 Roofing, Flashing, Sheet Metal

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 024119 – Selective Demolition (For Reference)
- Section 072100 – Thermal Insulation (As Required Per Scope)
- Section 075216 – Styrene-Butadiene- Styrene (SBS) Modified Bituminous Membrane Roofing
- Section 076200 – Sheet Metal Flashing and Trim
- Section 079200 – Joint Sealants (As Required Per Scope)
- Section 079500 – Expansion Control (As Require Per Scope)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Confirm that materials furnished for this Bid Package are compatible with other materials furnished for other Bid Packages.
2. Should the roofing product manufacturer require standard details that conflict with the contract documents, drawings, details, or notes, Subcontractor must immediately notify Construction Manager in writing with a proposed method of resolution.
3. Review, approve, and accept all subsurfaces prior to installation.
4. All work shall, as a minimum, comply with industry accepted “best practices” and with the SMACNA “Architectural Sheet Metal Manual” criteria.
5. Comply with all wind uplift requirements of Owner and Owner agents.
6. Coordinate all deliveries of material with Project Superintendent. Secure, store, and protect all materials from weather.
7. Provide hoisting for materials provided in this Bid Package.
8. Provide a complete watertight roof system with related tapered insulation, flashing and counter flashing, coping, scuppers, expansion joints, ballast, gutters and downspouts, and caulking.
9. Provide a complete insulation system to provide positive drainage to roof drain, and to prevent ponding of water on roof surface. Provide tapered crickets at rooftop units, equipment, and roof perimeter.
10. Provide roof system that meets minimum insulation value as specified. Clearly confirm the minimum “R” value rating on shop drawings.
11. Cover all insulation installed each day. Do not shake out or leave unprotected any insulation which may become wet with dew or rainfall.

12. Coordinate all metal flashing and trim so that metal products match in color to the metal roof copings, flashing and trim.
13. Provide pitch pockets and flashing for miscellaneous penetrations of the roof.
14. Provide roof expansion joints and covers.
15. Provide walk-pads at the HVAC equipment as required to properly access all rooftop equipment (**if required**)
16. Provide all miscellaneous roof accessories.
17. Install roof drains provided by plumbing subcontractor and set clamping rings. Coordinate with plumbing subcontractor for the proper installation of this work.
18. Coordinate with the HVAC and plumbing subcontractors to ensure that proposed locations of plumbing vents and rooftop equipment do not conflict with roofing manufacturer warranty requirements.
19. Immediately clean all areas or surfaces soiled by roofing operations.
20. Prior to demobilization, Subcontractor agrees to coordinate with Project Superintendent for the purpose of conducting a waterproof test.
21. All warranties must be signed by the roofing manufacturer's representative.
22. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide and install all metal-work, flashing, coping, scuppers, gutters, downspouts and trim shall be pre-finished as noted in the specifications.
2. Provide and install all soffits and fascia, including all trim.
3. Provide and install roof expansion joints and covers.
4. Prior to demobilization, Subcontractor agrees to coordinate with Project Superintendent for the purpose of conducting a waterproof test.
5. Coordinate roof drain locations with plumbing contractor.
6. Provide a complete connection between roof top unit curb and new roofing system.
7. Provide removal of existing downspouts with new roof drain and overflow drain as indicated in the construction documents.
8. Provide re-roof as required for installation of new work. Contractor to verify extent of work. Include roof protection when working on existing roof structure.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

08.2 Storefront, Glass, Glazing

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 072726 – Fluid Applied Membrane Air Barriers (For Reference)
- Section 076200 – Sheet Metal Flashing and Trim (As Required Per Scope)
- Section 079200 – Joint Sealants (As Required Per Scope)
- Section 079500 – Expansion Control (For Reference)
- Section 081113 – Hollow Metal Doors (As Required Per Scope)
- Section 081413 – Aluminum- Framed Entrances and Storefronts
- Section 087100 – Door Hardware (For Reference)
- Section 088000 – Glazing
- Section 088300 – Mirrors

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Verify actual field measurements from installed rough openings.
2. Clearly identify all tolerance requirements on dimensioned shop drawings. Initiate on-site coordination meetings with the Project Superintendent to ensure the proper fit and scheduling of this work with the work of others.
3. Clearly dimension stile heights and widths on shop drawings.
4. Furnish and install required scaffolding in strict accordance Construction Manager’s safety policy. Comply with tie-off rules when working higher than 6 feet above grade. Provide necessary grade work as required to accommodate areas with steep slopes for erection of scaffolding systems
5. Provide hoisting and material handling.
6. Provide any blocking required for the installations associated with this package that may not be shown on the drawings.
7. Provide all aluminum and glass storefront systems, curtainwall systems, and entrances.
8. Provide all sills, trims, transoms, cladding, etching, associated exterior caulking, sealants, and adhesives, weather stripping, brake metal, etc.
9. Provide all miscellaneous flashings integral with storefront, curtainwall, or entrance systems.
10. Include steel reinforcement within aluminum framing if required.

11. Include fire safing insulation at floors if required for work covered by this trade scope.
12. Provide all related hardware not specifically provided by others.
13. Furnish and install aluminum metal, wood, plastic or clad windows including weather stripping, hardware, misc. related aluminum, trim, thresholds, anchors, bracket attachments, sealants and other accessories necessary for a complete installation.
14. Provide all glass products according to glass type schedules in the documents and as required by Code.
15. Furnish and install glass at hollow metal window frames and doors, wood frames and doors, plastic laminate doors and FRP doors. Include all sealants and gaskets.
16. Provide all non-framed glass mirrors.
17. Include final adjusting per contract documents.
18. Remove all labels and stickers from all components after installation.
19. Include final cleaning and install security tape across windows immediately after installation.
20. Prior to final Application for Payment, schedule and perform for Construction Manager a water (hose) infiltration test on all exterior work deemed complete and ready for Owner acceptance.
21. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide and install all window films and spandrel glass as indicated in the construction documents.
2. Provide and install all door hardware for all aluminum storefront doors, including electrified, automatic hardware and door operators.
3. Provide and install all sealants within glazing systems. Sealants at interior and exterior perimeter of aluminum windows, entrances, storefronts, and curtain walls will be by the waterproofing contractor.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

09.0 Light Gauge Framing, Drywall, Acoustical

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 054000 – Cold-Formed Metal Framing
- Section 061053 – Misc. Rough Carpentry
- Section 061600 – Sheathing
- Section 072100 – Thermal Insulation
- Section 072726 – Fluid-Applied Membrane Air Barriers (For Reference)
- Section 078413 – Penetration Fire-stopping
- Section 078446 – Fire Resistive Joint Systems
- Section 079200 – Joint Sealants (As Required Per Scope)
- Section 079500 – Expansion Control (As Required Per Scope)
- Section 081113 – Hollow Metal Doors and Frames (As Required Per Scope)
- Section 092216 – Non - Structural Metal Framing
- Section 092900 – Gypsum Board
- Section 095113 – Acoustical Panel Ceilings
- Section 097723 – Fabric Wrapped Panels
- Section 098433 – Sound Absorbing Wall Units

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Except where found to be in conflict with contract documents, adhere to requirements of the latest edition of the U.S. Gypsum Handbook for installation of gypsum board materials. Advise Construction Manager of all such discrepancies or conflicts in writing immediately.
2. Coordinate with other trades for installations encapsulated by drywall or drop ceilings. Coordinate any and all framing inspections with local jurisdictions.
3. Include layout for metal stud walls and ceilings.
4. Furnish and install all load-bearing and light-gauge steel studs and joists, steel runner, lintels, clip angles, hold-downs, furring channels, brackets, Z-furring, reinforcement, fasteners, and other accessories as required by the construction documents and as required for a complete metal framing system.

5. Install all framed openings and block-outs in drywall partitions, ceilings, furrdowns, and enclosures as required for the work of other trades.
6. Provide sheathing and gypsum board, moisture-resistant board, drywall control joints, acoustical caulking, high impact gypsum, shaftwall, weather resistant barriers and tile backerboard.
7. Provide UL listed fire rated assemblies as shown.
8. Include taping and finishing of drywall surfaces.
9. Furnish and install all firestopping, sealant or caulking except for MEPF penetrations in fire rated walls, fire rated enclosures above light fixtures, fire safe insulation if required and fire stop between floors.
10. Provide expansion joints in walls and ceiling joint systems as shown.
11. Furnish and install all batt, blanket type and acoustical insulation per construction documents.
12. Insulate at steel beams where shown on construction documents.
13. Furnish and install board insulation (except where installed by concrete and masonry bid packages).
14. Provide complete suspended ceiling framing systems, including all furring channels, hanger rods, flat hangers, wire, grid system, axiom trim, grid wires for light fixtures and other accessories.
15. Maintain true and level ceilings at heights indicated in the construction documents.
16. Coordinate installation of sprinkler heads, light fixtures, speakers, HVAC devices, access doors, and other appurtenances in ceilings.
17. Acoustical sound panels to be provided and installed per construction documents.
18. Provide all blocking (plywood, lumber, or metal strap) for millwork, doors, windows, frames, louvers, toilet accessories, marker boards, aluminum storefront systems, toilet partitions, fire extinguishers, roof blocking, panel boards for telephone system, or Owner-furnished items.
19. Provide tackable wall surface.
20. Set and install hollow metal frames (provided by others) in metal framing systems, including grouting frames.
21. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide and install pipe grid as indicated in the construction documents.
2. Provide and install ceiling expansion joint cover.
3. Provide and install FRT flats prior to installing sheathing as indicated in the construction documents.
4. Provide and install permanent drywall infills as indicated in the construction documents.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

09.2 Tile and Commercial Flooring

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 079200 – Joint Sealant (For Reference)
- Section 079500 – Expansion Control (As Required Per Scope)
- Section 096513 – Resilient Base and Accessories
- Section 096519 – Resilient Tile Flooring
- Section 096813 – Tile Flooring

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Furnish to Construction Manager a seaming layout plan for approval by Architect.
2. Inspect substrates prior to installation. The start of installation of floor covering will be construed as the applicator's acceptance of the finish floor surface conditions.
3. Perform moisture test and give results to construction manager prior to commencement of work.
4. Provide all surface preparation, leveling, bonding agents and adhesive, carpet tack strips, patterns, transition strips, and other accessories required.
5. Surface preparation, provide and install up to 1 lb. of floorstone per 30SF of flooring. Floorstone not used in one area may be added to another area. Prime surfaces per mfg.'s directions if required.
6. Furnish and install all carpet and padding.
7. Furnish and install all resilient flooring and resilient base including treads and risers, transition strips, and stair nosings.
8. Provide and install pre-formed cove base outside corners.
9. Provide and install all floor-to-floor expansion joint covers as required.
10. Provide initial cleaning of resilient materials, carpet, and tile upon completion of installation in strict accordance with the manufacturer's recommendations.
11. Remove visible adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet manufacturer. Remove protruding yarns from carpet surface.
12. Protect flooring against mars, marks, indentations, and other damage from construction. Use protection methods indicated or recommended by tile manufacturer.
13. Provide "extra stock" materials as identified in the construction documents.
14. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide moisture testing as required prior to installation of all flooring.
2. Provide and install floor expansions as indicated in the construction documents.
3. Repair and patch VCT in corridor at new entry. Provide rubber base.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

09.4 Painting and Wallcovering

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 079200 – Joint Sealant (As Required Per Scope)
- Section 097200 – Wall Coverings(As Required Per Scope)
- Section 098433 – Sound Absorbing Wall Units (As Required Per Scope)
- Section 099113 – Exterior Painting
- Section 099123 – Interior Painting
- Section 099600 – High Performance Coatings

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Include surface preparation.
2. Preparation – before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of various coatings, remove oil and grease before cleaning. Do not begin to apply paint until unsatisfactory conditions have been corrected and surfaces are thoroughly dry. Remove efflorescence before painting cementations and masonry materials. Prepare and paint all miscellaneous metals include handrails, stairs, ladders and metal flashing which are not pre-finished.
3. Protect all adjacent surfaces against painting.
4. Provide all interior and exterior painting and staining of all surfaces shown to be field finished. Scope includes, but is not limited to, gypsum board, doors, frames, millwork, wood surfaces, metals, exposed concrete, and CMU.
5. Include painting of open structure ceilings as noted on finish schedule.
6. Paint mechanical and electrical equipment, ductwork, conduit and piping as required.
7. Include painting of open structure ceilings as noted on finish schedule.
8. Include glaze coatings as needed.
9. Includes touch up of walls, ceilings, and all other painted surfaces as required by industry standards.
10. Include interior caulking at hollow metal frames, window frames, storefront frames, sills and other aesthetic caulking as needed.
11. Include painted graphics.
12. Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of the same material are applied. Tint undercoats to match the color of the finish coat but provide sufficient difference in the shade of undercoats to distinguish each separate coat.

13. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Include all surface preparation for painting procedures.
2. Include wall touch of walls, ceilings, and all other painted surfaces as required by industry standards.
3. Protect all adjacent surfaces, existing surfaces, and new finishes during the completion of this scope of work.
4. Include painting of all exposed structural steel and MEP/FP components.
5. Provide and install interior caulking as required, including but not limited to interior side of doors and window frames.
6. Include painting of sound absorbing wall panels.
7. Include painting of CMU walls to match existing interior walls.
8. Include painting of pipe grid as indicated in the construction documents.
9. Provide mobilization for construction manager's worklist items prior to architectural punch list.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. Provide alternate price on Lump Sum Proposal form for field finishing wood doors in lieu of prefinished wood doors.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

10.0 Doors, Frames, Hardware (Supply)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 081113 – Hollow Metal Doors and Frames (As Required Per Scope)
- Section 081416 – Flush Wood Doors (As Required Per Scope)
- Section 083113 – Access Doors and Frames (As Required Per Scope)
- Section 084113 – Aluminum Entrances and Storefronts (As Required Per Scope)
- Section 088000 – Glazing (As Required Per Scope)
- Section 097100 – Door Hardware

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Include cost of freight to jobsite. Coordinate all lay down and staging areas with Project Superintendent at least 48 hours in advance of all material deliveries.
2. Any discrepancy between the hollow metal, hardware and wood door schedules shall be immediately brought to the attention of Project Superintendent.
3. Furnish and deliver all hollow metal frames and mullions, including all anchors and accessories.
4. Furnish and deliver all hollow metal doors, wood doors and accessories.
5. Furnish and deliver FRP and laminate doors to jobsite, **if required.**
6. All materials must be individually wrapped and protected, and clearly labeled and tagged.
7. All frames and doors must be rated as required and carry the appropriate underwriters label.
8. All doors must be pre-machined for finish hardware, undercut (as required), and pre-finished (if required by construction documents).
9. Include door cutouts, view lite kits, grilles, and stops.
10. Include all transoms and side panels as required.
11. Furnish and deliver all finish hardware, including cylinders for aluminum or glass doors.
12. Furnish and deliver temporary construction cores.
13. Include provisions for final keying. Include cost for coordination meeting with Owner Representative(s).
14. Provide low voltage transformers and wiring required for mag locks, hold opens, etc.
15. Ensure that the supplied product is the correct mounting type for the scheduled wall.
16. All accessories shall meet the performance specifications in the construction documents.

17. All material will be handled, inventoried and protected by Construction Manager. Construction Manager will provide a secure lockup for storage.
18. Supply all material, equipment, and associated specialties hardware to provide a complete installation.
19. Furnish and deliver all mounting devices, accessories and fasteners required for complete installation.
20. Coordinate wall blocking requirements with the construction manager.
21. Contractor to verify blocking locations in drywall partitions to ensure proper anchorage. Blocking provided and installed by others.
22. For all products use specified manufacturer unless otherwise noted.
23. All warranties shall commence on the date of Substantial Completion of the Project.
24. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide storm rated door and frame (window shutters) as indicated in the construction documents.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

10.1 Building Specialties (Installation)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 088000 – Glazing (For Reference)
- Section 097100 – Door Hardware (As Required Per Scope)
- Section 101100 – Visual Display Unit (As Required Per Scope)
- Section 101423 – Panel Signage
- Section 102600 – Wall and Door Protection(As Required Per Scope)
- Section 102800 – Toilet, Bath, and Laundry Acc.
- Section 104413 – Fire Protection Cabinets
- Section 104416 – Fire Extinguishers

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.
2. Install all toilet, bath, and laundry acc. as indicated in the construction documents.
3. Install all visual display units as indicated in the construction documents. Keep perimeter lines straight, level, and plumb. Provide grounds, clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation.
4. Install all fire extinguisher cabinets and fire extinguishers in all locations indicated in the construction documents.
5. Install all wall and door protection in all locations indicated in the construction documents.

Section B: Project Specific Requirements:

1. Provide complete installation of storm rated door and frame (window shutters) as indicated in the construction documents.
2. Provide installation of all signage as indicated in the construction documents.
3. Install stainless steel sheet as indicated in the construction documents.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid

Section D: Project Alternates:

1. N/A.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

10.2 Visual Display Surfaces (Supply)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 101100 – Visual Display Surfaces

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Supply all material and associated hardware to provide a complete installation for all sections of this package.
2. Ensure that the supplied product is the correct mounting type for the scheduled wall.
3. Supply markerboards, tackboards, tackwalls, and accessories from specified manufacturer.
4. Furnish and deliver factory-built visual display boards, including factory-applied trim where indicated, completely assembled in one piece without joints. Store visual display units vertically with packing materials between each unit.
5. Warranty will begin on date from Substantial Completion for the Project.
6. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect’s substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Supply all visual display surfaces as indicated in the construction documents.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid. Taxes will be applied to invoices.

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

10.3 Signage (Supply)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 101423 – Panel Signage

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Furnish and install signage that complies with the ADA-ABA Accessibility Guidelines.
2. Provide dimensional characters from specified manufacturer.
3. All material will be handled, inventoried, and protected by Construction Manager. Construction Manager will provide a secure lockup for storage.
4. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Supply all signage as indicated in the construction documents.
2. Coordinate all necessary signage blocking with framer.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid. Taxes will be applied to invoices.

Section D: Project Alternates:

1. N/A.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

10.6 Wall and Door Protection (Supply)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 102600 – Wall and Door Protection

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. For all products use specified manufacturer unless otherwise noted.
2. All accessories shall meet the performance specifications in the construction documents.
3. Supply all material, equipment, and associated hardware to provide a complete installation of wall protection, end wall guards, and corner guards.
4. All material will be handled, inventoried and protected by Construction Manager. Construction Manager will provide a secure lockup for storage.
5. All warranties shall commence on the date of Substantial Completion of the Project.
6. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect’s substantial completion for each phase of the project.

Section B: Project Specific Requirements:

3. Supply all wall and door protection as indicated in the construction documents.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid. Taxes will be applied to invoices.

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

10.7 Fire Extinguishers and Cabinets (Supply)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 104413 – Fire Extinguisher Cabinets
- Section 104416 – Fire Extinguishers

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. All accessories shall meet the performance specifications in the construction documents.
2. Supply all portable fire extinguishers and fire extinguisher cabinets as indicated and specified.
3. Supply all material, equipment, and associated hardware to provide a complete installation
4. Coordinate type and capacity of fire extinguishers with fire protection cabinets to ensure fit and function.
5. All material will be handled, inventoried and protected by Construction Manager. Construction Manager will provide a secure lockup for storage.
6. Provide maintenance data of fire protection cabinets and fire extinguishers to be included in maintenance manuals.
7. All warranties shall commence on the date of Substantial Completion of the Project.
8. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect’s substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Supply all fire extinguishers and fire extinguisher cabinets as indicated in the construction documents.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid. Taxes will be applied to invoices.

Section D: Project Alternates:

1. N/A.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

12.0 Window Treatment

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 122113 – Horizontal Louver Blinds

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Furnish and install material, equipment, and associated hardware to provide a complete installation for window treatments.
2. Field verify dimensions prior to fabrication and delivery of window treatment. Dimensions will not be guaranteed.
3. Provide special warranty for each section of this package, as specified; commencing on the date of substantial completion of the project.
4. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect’s substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Furnish and install 2” horizontal blinds where indicated or required.
2. Furnish and install manual cloth-roller shades where indicated or required Project specific requirement.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid.

Section D: Project Alternates:

1. N/A.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

21.1 Fire Suppression

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 024119 – Selective Demolition (As Required Per Scope)
- Section 078413 – Penetration Fire-stopping (As Required Per Scope)
- Section 078446 – Fire Resistive Joint Systems (As Required Per Scope)
- Section 079200 – Joint Sealants (As Required Per Scope)
- Section 083113 – Access Doors and Frames (As Required Per Scope)
- Section 210500 – Common Work Results for Fire Suppression
- Section 210517 – Sleeves and Sleeve Seals for Fire- Suppression Piping
- Section 210518 – Escutcheons for Fire- Suppression Piping and Equipment
- Section 211313 – Wet Pipe Sprinkler Systems

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide all hydraulic calculations and piping drawings.
2. Design, furnish, and install a complete Fire Suppression System that shall conform to the construction documents, NFPA, local ordinances and zoning restrictions, and all local authorities having jurisdiction.
3. In the case of difference between specification, codes, local and state laws, ordinances or contract documents, the most stringent governs.
4. Provide all fire protection service lines from any tap location to the building.
5. Include fire protection risers as needed (includes PIV, BFP, fire hydrants, FDC points and/or check/ball valves).
6. Provide systems as required for concealed spaces such as attics, stage floors, canopies, etc.
7. Provide erection of metal supports and anchorages for fire protection scope of work.
8. Coordinate with electrical, HVAC, and plumbing trades to avoid all layout conflicts.
9. Furnish to other trades any access doors needed for access to fire protection installation.
10. Provide hose valves, backflow devices, cabinets, and hoses per plans and specifications.
11. Provide all connections and attachments to existing fire suppression sprinkler system as required.
12. Provide fire-stopping assemblies where necessary for penetrations created by this scope of work.
13. Provide all compliance reports and certificates as required by specifications.
14. Include training of Owner's staff.
15. Include all core drilling for routing of new fire suppression lines.

16. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Include fire suppression demolition, disconnection, capping as indicated in the construction documents.
2. Extend sprinkler coverage to addition as indicated in the construction documents.
3. Include all fire-resistive joint systems and penetration fire-stopping for the fire suppression system.
4. Provide and install any access doors (24"X24" min.) needed for access to fire suppression equipment.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid.

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

22.1 Plumbing

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 072100 – Thermal Insulation (As Required Per Scope)
- Section 078413 – Penetration Firestopping (As Required Per Scope)
- Section 079200 – Joint Sealants (As Required Per Scope)
- Section 083113 – Access Doors and Panels (As Required Per Scope)
- Division 22- Plumbing (In its Entirety)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. In the case of discrepancy between drawings, specifications, codes, local and state laws, ordinances, or contract documents, the most stringent governs.
2. Because of the drawing scales it is not possible to indicate all fittings and accessories that may be required. Include any and all fittings, offset, valves, etc., for a complete system.
3. Plumbing contractor is to lay out all lines and elevations associated with this scope of work.
4. It is the responsibility of the plumbing contractor to verify the locations of all existing utilities and services as indicated on the drawings that are to be tied into prior to submitting a bid proposal. Failure to do so will result in the plumbing contractor assuming responsibility for any deviations of existing utilities from the construction documents.
5. Furnish all pipe bedding, cushion materials and thrust blocks per construction documents.
6. Provide gradation plan if required. Check all sewer line gradations with existing utilities prior to installation to ensure the required flow is achieved.
7. Upon completion of plumbing contractor's underground work, plumbing contractor is responsible to re-grade area, back fill and compaction to restore slopes and elevations to prevent standing water. Remove all spoils off site. Restore areas to the same state or better before work was commenced.
8. Dewater excavations associated with this trade as required to preserve structural integrity and workability.
9. Include removal and replacement of concrete and masonry as required to tie into existing services and utilities.
10. Verify locations of services prior to submitting a bid proposal.
11. Prior to placement of the concrete slab, all stub ups are to be capped to prevent any concrete debris from falling into sanitary waste and vent lines. After installation of all concrete slabs on grade provide camera inspections of all sanitary sewer and vent lines to verify that lines are free and clear of debris.

12. Furnish and install complete plumbing system per construction documents.
13. Include complete sanitary sewer system.
14. Include all core drilling for routing of new plumbing lines.
15. Include all natural gas piping required for this scope of work, **if required.**
16. Furnish and install all domestic water piping required to complete this scope of work.
17. Include any utility company fees, impact costs, metering or vault costs Include penetration sleeves, saw cutting, and coring required for this scope of work.
18. Furnish on site storage as required by the construction manager for the storage of fixtures and equipment.
19. Include a plumbing representative to be on site during slab pours to ensure plumbing lines remain in place.
20. Include all hoisting and scaffolding as required.
21. Furnish and install all plumbing fixtures including but not limited to urinals, urinal carriers, toilets, sinks and drinking fountains.
22. Include backflow preventers and tests, **if required.**
23. Tie new sanitary sewer lines in the existing sanitary sewer system per construction documents.
24. Include selective demolition required to install work in existing building. Remove plumbing items per plumbing plans shown to be removed and legally dispose of off site. Cap existing lines.
25. Include all associated blocking, anchors, stenciling and tagging for this scope of work.
26. Include pipe supports associated with this scope of work. All miscellaneous steel, uni-strut, all thread rod and accessories required for pipe support, wall or floor penetrations and blocking as required.
27. Coordinate with other trades to locate sleeves and to ensure plumbing does not interfere with any other items.
28. Include all plumbing identification including color coding, stencil, labels tags, etc. per construction documents.
29. Include cutting, coring and patching required for plumbing and gas line installations.
30. Supply any access doors (24" x 24" min.) needed for access to plumbing equipment.
31. Install flashing or sealant at each exterior weather barrier penetration per weather barrier manufacturer's recommendation.
32. Include all final connections to Owner-furnished equipment.
33. Include final plumbing connections to laboratory equipment, food service equipment and casework. Coordinate with those trades for tie-in of plumbing items relating to those trade.
34. Furnish and install all appliance related plumbing as required.
35. Supply roof drains to be installed by roofing contractor. Include roof drain piping and connection to roof drains.
36. Include fire-stopping for penetrations created by this scope of work.
37. Include sealants (color selected by Architect) around all plumbing fixtures, sinks and lavatories.
38. Provide video scoping of all sanitary sewer lines to the outside of building prior to substantial completion and correct any blockages or deficient piping found.
39. Include cleaning, purging and flushing of all lines when complete as related to this scope of work.
40. Ensure all equipment has adequate maintenance access when in place.
41. Clean up waste and debris generated by this scope of work and dispose on a daily basis and as directed by the construction manager.
42. Include documented instructional training to the owner's representative regarding the operation and maintenance of the plumbing systems.
43. All warranties for fixtures, devices, and equipment begin at date of Substantial Completion of Project.
44. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Include all plumbing demolition, disconnection, capping as indicated in the construction documents.
2. Include all fire-resistive joint systems and penetration firestopping for the plumbing system.
3. Provide and install art rooms solids interceptor.
4. Provide and install any access doors (24"X24" min.) needed for access to plumbing equipment.
5. Provide and install temporary water diversion from building by installing temporary piping to scuppers, gutters/downspouts, and roof drains.
6. Replace existing downspout with new roof drain and overflow drain.
7. Include routing of all required condensate lines as indicated in the construction documents.
8. Provide and install loose alumina silica fiber damming as required both sides.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid.

Section D: Project Alternates:

1. N/A

Section E: Unit Pricing:

1. N/A

END OF BID PACKAGE

23.1 Heating, Ventilation, Air Conditioning

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 072100 – Thermal Insulation (As Required Per Scope)
- Section 078413 – Penetration Firestopping (As Required Per Scope)
- Section 079200 – Joint Sealants (As Required Per Scope)
- Section 083113 – Access Doors and Panels (As Required Per Scope)
- Division 23- Heating Ventilating and Air Conditioning (In its Entirety)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. HVAC contractor to provide equipment and ductwork shop drawings for coordination with other trades. Shop drawings are to include the locations and sizes of all duct work, equipment and equipment maintenance access.
2. Provide layout locations as needed for roof curb, exhaust fans, vents etc. during steel erection phase.
3. In the case of discrepancy between drawings, specifications, codes, local and state laws, ordinances, or contract documents, the most stringent governs.
4. Include all selective demolition required to install work in the existing building. Remove all HVAC items per HVAC or demolition plans and legally dispose of off site.
5. Furnish and install a complete HVAC system.
6. Scope includes, but is not limited to equipment, supports, anchors, curbs, flashings, piping, duct work, insulation, controls, stenciling and labeling, VFD's, equipment disconnect switches, air venting devices, air exhausting devices, flow switches, condensation lines, dampers, diffusers, detectors, interconnection of instrumentation I/O control wiring systems, fuels, refrigerants and lubricants, supports for mechanical equipment, and other materials and devices as required for a complete HVAC system as per plans and specifications.
7. Because of the drawing scales it is not possible to indicate all fittings and accessories that may be required. Include any and all fittings, offset, valves, etc., for a complete system.
8. Provide conditioned air at the earliest possible date, as directed by Construction Manager, including all temporary and final air filters as required.
9. Supply any access doors (24" x 24" min.) needed for access to HVAC equipment.
10. Provide all sleeves, blocking, coring, and other associated caulking required for this scope of work.
11. Provide the necessary temporary air filters materials over permanent return air grills at all entrances to return air ducts weekly or as needed.
12. Include concrete cutting, coring and patching as required for the mechanical scope of work.

13. Include Automatic Temperature Controls and interlock wiring including control components and complete control wiring system in strict accordance with construction documents.
14. Furnish and install motor controllers and starters for mechanical equipment as specified.
15. Include roof curbs and penetration enclosures as required and per the roofing manufacturer's requirements to preserve the roof warranty.
16. Furnish and install louvers, access doors, grilles, and vents as required for this scope of work.
17. Include condensate piping.
18. Provide air filters including spare air filters for HVAC equipment. Furnish, install and maintain temporary filters during construction operations.
19. Furnish, install and maintain all roof penetrations, openings and curbs associated with this scope of work until all equipment has been installed and flashed in permanently. Remove and dispose of covers at the completion of work.
20. Include fire-stopping, fire sealing and caulking for penetrations created by this scope of work.
21. Duct detectors are to be furnished by the electrical contractor, installed by this scope of work, and terminated by the electrical contractor. Coordinate with the electrical contractor for wiring and terminations.
22. Coordinate with the electrical contractor for the location, size and installation of disconnects. The electrical contractor is to furnish and install disconnects. The locations are to be provided by the HVAC contractor.
23. Include all final connections to Owner-furnished equipment.
24. Include Commissioning per construction documents as required.
25. Include documented instructional training to the owner's representative regarding the operation and maintenance of the plumbing systems.
26. All warranties for fixtures, devices, and equipment begin at date of Substantial Completion of Project.
27. Include warranty per construction documents on all equipment regardless if used temporarily during construction for climatization.
28. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Include fire suppression demolition, disconnection, capping as indicated in the construction documents.
2. Include all fire-resistive joint systems and penetration fire-stopping for the HVAC system.
3. Provide and install any access doors (24"X24" min.) needed for access to HVAC equipment.
4. Provide and install all ventilation for the pug mill and kiln.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid.

Section D: Project Alternates:

1. N/A.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

26.1 Electrical, Communications and Electronic Safety

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 078413 – Penetration Firestopping (As Required Per Scope)
- Section 079200 – Joint Sealants (As Required Per Scope)
- Section 083113 – Access Doors and Panels (As Required Per Scope)
- Division 26 – Electrical (In Its Entirety)
- Division 27 – Communications (In Its Entirety)
- Division 28 – Electronic Safety and Security (In Its Entirety)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. This package includes all electrical, communication, and electronic safety and security scopes. Bidders wishing to bid only electrical, communications, or electronic safety and security are advised to bid the respective package as described in the Construction Management Manual.
2. Provide all temporary lighting and power distribution in buildings as required for construction activities.
3. Provide all site power and/or lighting electrical work.
4. Provide all site trenching and duct banks needed for electrical and communication underground raceways and/or cables.
5. Deposit dirt spoils in area on site designated by the Project Superintendent.
6. Provide any electrical meter fees or impact cost required by the local electrical service provider.
7. Provide any conduit, pull strings, j-boxes etc. for any Division 26, 27, or 28 empty raceway systems as required per plans and specifications.
8. Provide any building primary/secondary electrical switchgear, panels, emergency power and/or generator systems as per plans and specifications.
9. Provide all raceway, wiring and terminations of VFD and/or starters that are furnished and installed by HVAC Subcontractor.
10. Provide any grounding systems, lightning protection systems, and certifications as required per plans and specifications.
11. Provide fire stopping for all penetrations created by this scope.
12. Provide all final connections and terminations for Owner Furnished Equipment.
13. Provide all final electrical connections and terminations as required to equipment furnished and installed by other bid packages.
14. Provide equipment and device testing, checkout and/or load studies as required per plans and specifications.

15. Provide training of Owner's staff on electrical equipment.
16. In the case of difference between drawings, specification, codes local & state laws, ordinances or contract documents, the most stringent governs.
17. All warranties for fixtures, devices, equipment and gear begin at the date of the Project's Substantial Completion.
18. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide all Division 26, 27 and 28 systems.
2. Furnish and install two (2) minimum support wires from building structure to each electrical recessed fixture located in tee bar grid system.
3. Include all electrical/low voltage demolition, disconnection, capping, and relocation as indicated in the construction documents.
4. Include all fire-resistive joint systems and penetration fire-stopping for the electrical system.
5. Provide and install any access doors (24"X24" min.) needed for access to electrical equipment.
6. Provide and install all card readers as indicated in the construction.
7. Provide and install all electrical required for the installation for kiln and pug mill.
8. Provide and install cord reels as indicated in the construction documents.
9. Provide and install sound system rack as indicated in the construction documents.
10. Provide and install speaker mounts and speakers as indicated in the construction documents.
11. Provide installation of owner furnished AV system.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid.
2. Exclude supply of projector and projector screen.

Section D: Project Alternates:

1. N/A.

Section E: Unit Pricing:

1. N/A.

END OF BID PACKAGE

31.1 Earthwork, Storm Drainage and Site Utilities

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 024119 – Selective Demolition (As Required Per Scope)
- Division 31 –Earthwork (As Required Per Scope)
- Division 32 – Exterior Improvements (As Required Per Scope)
- Division 33- Utilities (As Required Per Scope)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

Earthwork and Storm Drainage

1. Coordinate the procurement of all paperwork, permits, fees, and bonds necessary for the work covered under this agreement, bearing all cost associated.
2. Professional surveyor to establish benchmarks, set lines and levels to layout building(s) and parking under this scope of work. Provide all site layout and engineering required including maintenance of such.
3. Provide and maintain storm water prevention plan in accordance with requirements of the local jurisdiction(s).
4. Provide erosion control, maintenance of positive site drainage, and dewatering as it relates to the work. Maintain positive site drainage.
5. Provide all barricades, excavation protection, traffic control, and flagmen as necessary for the work.
6. Include all applicable taxes for this scope of work.
7. Locate existing utilities and structures prior to commencement of work. Damage to existing utilities and structures as a result of this work will be paid for by the sitework contractor.
8. Do not interrupt existing utility serving occupied or operating facilities, except when authorized in writing by Owner and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to governing authorities.
9. Provide all site demolition (including saw cutting) and removal from site. Demolition includes, but is not limited to asphalt paving, base, concrete paving, curbs, sidewalks, poles bases, stairs, ramps, retaining walls, and foundations. Provide demolition of all abandoned or terminated underground utility lines and structures.
10. Provide all site clearing, grubbing, tree and stump removal, hauling, and dumping.
11. Strip, store, and protect topsoil. Replace and grade to within (\pm) .10 feet. Remove excess topsoil from site or stockpile in a location as directed by Construction Manager.
12. Provide watering/water trucks as required to provide compaction and to control dust.

13. All grading, cut, fill, disk and or processing, compaction to 95% standard optimum density (or as otherwise specified). Grades to be provided to (+/-) .10 feet of specified subgrade. Provide import of necessary fill or hauling of excess cut if necessary. Excessive slopes shall be laid back at a 2:1 slope as required.
14. Final grading and topsoil replacement to be done after all trades are finished. Fill all ruts, back of curbs, sidewalk edges, paving edges and against buildings. Provide suitable topsoils to specified topsoil depth. Topsoil shall be equivalent to clean sandy loam if site topsoil is insufficient or unsuitable. Seed as required by construction documents. All areas disturbed by construction activities shall be re-graded and backfilled.
15. Coordinate soils testing with Project Superintendent and testing agency.
16. Pay for any retesting in the event of failed compaction test.
17. Provide test certificates for offsite fill if used.
18. Provide and install all storm sewer including related concrete structures.
19. Provide a complete storm drainage piping system.
20. Grated inlets to be completed as part of this package.
21. At future storm drain inlet locations, temporary enclosures may be necessary to maintain water flow and to avoid debris in piping.
22. Provide as-built site drawings documented by professional surveyor.

Site Utilities

23. All permits, fees, and right of way bonds required to form this work.
24. Field engineering and site layout required to perform this scope of work.
25. Verify locations of existing utilities and services prior to commencement of work.
26. Include necessary traffic and dust control including signage and barricades required.
27. Provide complete underground system from utility service main to location at building or as noted.
28. Provide all excavation and backfill required for underground utilities.
29. Clean up site and adjoining streets while working onsite. Power wash all paving, drives and walks at the end of project. Remove and legally dispose off site of all debris associated with this trade package. Do not use dumpsters.
30. Sewer line complete – Furnish and install all materials including structures and sleeves required, tie in to building sewer, **if required.**
31. Water main complete – Furnish and install all materials including connection to city service, hydrants, thrust blocks, etc., **if required.**
32. Gas main and meter complete – furnish and install including connection to utility service, **if required.**
33. Furnish and Install concrete structures as required, **if required.**
34. Furnish and Install backflow preventers and testing, **if required.**
35. Repair paving and sidewalks including re-striping where needed.
36. All cutting, patching, excavation, backfill and boring as required to construct utility lines.
37. Dewatering of the excavations associated with this scope of work as required. Preserve structural integrity and workability.
38. Clean and flush all lines when complete.
39. Dispose of all spoils offsite.
40. Any curb, gutter sidewalks, and paving that is damaged in excess of construction shown in the plan shall be replaced at the subcontractor's expense.
41. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide all site grading as indicated in the construction documents.
2. Remove, abandon or cap all terminated existing utility lines as indicated in the construction documents.
3. Provide all site demolition (including saw cutting) and removal from site.
4. Provide and install all site utilities as indicated in the construction documents.
5. All manholes, catch basins, utility valves and meter pits shall be adjusted for rebuilt to grade as required.
6. Provide parking lot and street sweeping for the duration of the project.
7. Provide soil and seeding stabilization upon completion of final grading on all disturbed areas in accordance to grading areas per civil drawings.
8. Provide new connections to storm water piping.

Section C: Project-Specific Exclusions:

1. Exclude applicable Sales & Use Tax from bid.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Provide unit prices for the following:
 - a. Undercut and remove from jobsite existing soils deemed by Soils Engineer to be unsuitable for reuse, measured as in-place yardage.
 - b. Import from off-site and compact structural fill with approved proctor, measured as in-place yardage.
 - c. Excavate and remove from jobsite mass rock quantity, measured as in-place yardage.
 - d. Excavate and remove from jobsite trench rock quantity, measured as in-place yardage.

END OF BID PACKAGE

32.6 Site Concrete

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Section 033000 – Cast-In-Place Concrete (As Required Per Scope)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide all layout and field measurements, including layout and installation of embedded items.
2. Coordinate equipment mobilization and productivity with overall Project Schedule. Provide concrete conveyance as necessary.
3. Provide barricades, traffic control, and flagmen as necessary for this work.
4. Provide generator power if electric is not readily available.
5. Repair, fine grade, and proof-roll subgrade to accept base course.
6. Provide compaction as required by the specifications.
7. Pay for any retesting in the event of failed compaction test.
8. Perform all associated excavation, backfill, and compaction required for site concrete assemblies. Haul excavation spoils to designated area on site for backfill. Remove excess spoils from site.
9. Furnish and install complete site concrete assemblies as noted below.
10. Provide all formwork and formwork accessories, bedding and leveling materials, reinforcing steel and reinforcing accessories, concrete ready-mix, admixtures, curing and hardening compounds, concrete accessories, joints and weeps, sleeves, finishing and rubbing, and installation of any and all embedded items furnished by others (including bollards, sleeves, bolts, etc.).
11. Provide sidewalks with gravel base.
12. Provide concrete paving with gravel base.
13. Provide concrete curb and gutter, **if required.**
14. Provide cast-in-place curb inlets. Storm drain boxes provided under separate bid package.
15. Provide handicap ramps at sidewalk transitions with embedded detectable warning devices.
16. Provide and utilize designated concrete wash area(s).
17. Clean up and remove concrete spillage.
18. Provide all cold weather and/or hot weather protection required to maintain Project Schedule.
19. Replace grades to original condition in affected areas adjacent to work performed.
20. Final surfaces shall be as specified and free from cracks, voids, and spalls. Positive drainage of water shall be provided on traffic surfaces, without ponds or water stands. Should final surfaces contain any of the above mentioned, items shall be repaired or removed and replaced at no additional cost to the Owner.
21. Provide all road cleanup required by activities of this work.

22. This project requires a 2-year warranty for workmanship and materials. This warranty is to include all labor, parts etc. required for warranty items in the 2-year period. Warranty shall begin at the architect's substantial completion for each phase of the project.

Section B: Project Specific Requirements:

1. Provide supply and installation for site concrete (sidewalks).

Section C: Project-Specific Exclusions:

1. Exclude storm drain structures. Storm drain structures provided under separate bid package.
2. Exclude Embedded material items. Embedded material items provided under separate bid package.
3. Exclude applicable Sales & Use Tax from bid.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

4.00 SCHEDULE

1. All activities related to Bidder's Scope of Work shall be completed within the schedules prepared by and agreed to by Construction Manager. All Subcontractors and Suppliers shall procure materials and provide the manpower necessary to meet the Project Construction Schedule. Estimated time periods for construction are:
 - a. Earthwork & Site Utilities: 7/1/2019 – 7/12/19
 - b. Foundations, Exterior Shell & Skin: 7/12/19- 8/20/19
 - c. Interior Finishes: 8/20/19- 9/20/19
 - d. Site Improvements: 8/20/19- 9/16/19
 - e. Project Completion: 9/18/19

2. A Preliminary Construction Schedule will be provided to all Subcontractors and Suppliers with Project Contracts. Meetings will then be held with all Subcontractors and Suppliers for the purpose of receiving and coordinating input relating to duration and scheduling of project activities, which will be used to produce the actual Project Construction Schedule.

3. All Subcontractors and Suppliers shall be ready to commence work as required by the Project Construction Schedule and immediately upon receiving Notice to Proceed; and receipt from Subcontractor of executed Master and Project Contract Documents, Insurance that complies with Nabholz requirements, and Performance and Payment bonds (if required). In addition, all Subcontractors and Suppliers shall be prepared to provide shop drawings and/or submittals immediately upon award of contract and in no case no later than 30 days after award of contract.

5.00 OTHER FORMS

.01 Insurance Requirements

CONSTRUCTION MANAGER WILL NOT AUTHORIZE PAYMENTS TO SUBCONTRACTOR UNLESS SUBCONTRACTOR'S CURRENT CERTIFICATE OF INSURANCE AND CERTIFICATE OF SAFETY AND HEALTH IS ON FILE AND APPROVED.

FOLLOWING ARE MINIMAL INSURANCE REQUIREMENTS FOR SUBCONTRACTORS. WHERE THESE GENERAL REQUIREMENTS ARE LESS THAN THE REQUIREMENTS SET BY THE CONTRACT DOCUMENTS, THE CONTRACT DOCUMENTS WILL PREVAIL.

1. Commercial General Liability, with limits, no less than:

Each occurrence:	\$2,000,000
General aggregate (project specific):	\$2,000,000
Products/completed operations aggregate:	\$2,000,000

Policy shall contain no less than the following:

- a. Policy form ISO CG 00 01, or equivalent.
- b. Coverage shall be primary and non-contributory.
- c. ISO standard severability of interest's clause and separation of insureds clause.
- d. Claims-made policies are not acceptable
- e. ISO CG 24 04 10 93, or equivalent endorsement form waiving subrogation.
- f. ISO CG 20 10 and CG 20 37, or equivalent endorsement(s) for ongoing and completed operations. Unless prohibited by law, additional insured status shall not be limited to comparative negligence or vicarious liability of the Construction Manager.
- g. Additional insured endorsements shall accompany Certificate of Insurance.

2. Automobile Liability Insurance, no less than:

Combined single limit:	\$2,000,000
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Policy shall contain no less than the following:

- a. Coverage for "any auto," including owned, non-owned, and hired motor vehicles.
- b. Additional insured endorsement or omnibus clause.
- c. Waiver of subrogation endorsement.

3. Workers' Compensation and Employer's Liability Insurance, with limits no less than:

Workers' Compensation:	Per Statute
EL Each Accident	\$1,000,000

EL Disease – EA Employee	\$1,000,000
EL Disease – Policy Limit	\$1,000,000

- a. Other States coverage shall be included.
- b. Jones Act coverage shall be included, if applicable.
- c. USL&H coverage shall be included, if applicable.
- d. Workers’ compensation policy shall contain a waiver of subrogation endorsement, if permitted by law.

4. Umbrella Liability or Excess Liability Insurance OPTIONAL

Limits may be used to obtain the required limits for commercial general liability, automobile liability, and employer’s liability insurance. Such insurance shall follow-form with any primary policies.

5. Other Insurance

Other Insurance coverages may be required based on Scope of Work.

6. Additional Insured Entities.

Each insurance policy (except for workers’ compensation and employer’s liability insurance) shall include the following entities as additional insured parties:

- a. Nabholz Construction Corporation, its parent and affiliated companies;
- b. Project Owner;
- c. Project Architect and Engineers;
- d. Each of their respective employees, agents, and principals; and,
- e. Others as required by the Contract Documents

7. Subcontractor must maintain insurance throughout the duration of the Project and such time Subcontractor may be held legally liable for its Work, including the warranty period, or for such longer period as may be required under the terms of the Contract Documents.

8. If permitted by law, the certificate of insurance must include a 30-day written cancellation notice.

9. See sample certificate of insurance at <https://www.nabholz.com/bidding-and-contract-documents/>

.02 Example Contracts, Forms, and Other Documents

The following documents are available at <https://www.nabholz.com/bidding-and-contract-documents/> and should be reviewed prior to bid submission:

1. Contract Performance and Administration
2. Sample Master Contract
3. Sample Project Contract
4. Sample Performance and Payment Bonds
5. Sample Purchase Order
6. Sample Certificate of Insurance
7. Contractor-Controlled Insurance Program Addendum to Master Contract
8. Safety Standards

.03 Virtual Design Construction Protocol

Subcontractor's Virtual Design Construction ("VDC") Scope of Work and Spatial Coordination Requirements, as follows:

1. Alternate Section 1 language if Nabholz is providing the BIM services firm for the Project. Subcontractor shall agree to participate in the Project BIM coordination process by attending the BIM coordination and review meetings and provide guidance to the project BIM service firm as necessary to achieve the requirements below.
2. Subcontractor shall agree to provide Construction Manager an electronic three-dimensional (3D) model (such models are functionally referred to herein as "BIM" or "Building Information Models"). The models provided will be used to facilitate coordination, sequencing, and/or production of as-built depictions of the Project. The Subcontractor's costs of such participation shall be included in the lump sum Proposal unless explicitly outlined herein.
3. The BIM provided by Subcontractor shall be of sufficient detail (refer to Appendix A for details) to enable complete clash detection and shall be submitted to Construction Manager at a point in time that is reasonably in advance of Subcontractor's shop drawing submittals and the subsequent Project site construction of Subcontractor's Work. Each trade is required to submit six (6) copies of its respective, coordinated systems in two-dimension (2D) format as required by Subcontract, for approval through the regular approval process.
4. Construction Manager will make available its Project BIM website that will allow all parties to upload and download its respective "in progress shop models," manage electronic drawing files or models, and other documents used in the BIM coordination process.
5. Subcontractor shall attend Project kick-off meeting and participate in review and finalization of the Project BIM execution plan which will be signed by all participating parties.
6. Subcontractor shall participate in BIM coordination and review meetings as Construction Manager may require (usually once a week or 48 hours after the submissions of the BIM). As a result of such meetings, both the 2D (traditional method) and 3D (BIM) may be required to be changed by Subcontractor to achieve coordination with other elements of the Project that are provided by other parties. The anticipated duration of BIM spatial coordination is XX weeks.
7. Subcontractor agrees to promptly update and post changes to the BIM originating from RFIs, submittals, and bulletins throughout the course of the Project so that the BIM at the conclusion of the Project accurately depicts the Work as actually performed and installed. Such changes shall be accomplished at no increase in the price or time of completion.
8. All Subcontractors participating in the BIM must use the following file naming convention for their BIM/CAD files to track the version and date by each trade.

NCS Job #_Trade/Subcontractor Phase/Location

9. Subcontractors are responsible for providing a true 3D solid or surface model (not line and wireframe model) that represents the actual dimensions of the trade system elements and the equipment that will be installed. Individual pieces of equipment shall be modeled as a single complete element rather than connected lines and surfaces.
10. Subcontractor's drawing and model files shall be based on an origin point provided by Construction Manager. The cost of any changes required by Subcontractor to its drawings or models due to the use of an unauthorized origin shall be borne by Subcontractor.
11. All files supplied by Construction Manager will be as Autodesk .dwg, .nwc, .nwd or .rvt file format or other file format as necessary and agreed to by Construction Manager.
12. See the following spatial coordination requirements for BIM.

Spatial Coordination Requirements for BIM

1. Major Components.

a. HVAC Duct and Piping.

The **HVAC and Piping Subcontractor** will generate and provide in a timely manner BIMs of the HVAC systems including, but not limited to, duct work, piping, and all equipment installed in the HVAC scope of Work (fans, air handling units, built-up air handling units, pumps, tanks, valves, controls, heat exchangers, smoke and fire dampers, valves (including valve stems and handles), gauges and control valves, insulation on piping and ductwork, hangers and seismic bracing (if applicable), diffusers, registers, louvers, grilles, high and low point drains, starters, etc.). The HVAC and Piping Subcontractor shall also include in the BIMs all Owner or Construction Manager provided equipment that is installed under this Contract, concrete equipment pads, and inertia pads, and accessibility requirements for above listed items for code and maintenance purposes. The HVAC and Piping Subcontractor shall label the BIMs elements for all equipment under this contract as indicated in the Contract Documents.

b. Plumbing.

The **Plumbing Subcontractor** will generate and provide in a timely manner BIMs of the plumbing systems including, but not limited to, all piping systems and equipment installed in the Plumbing Subcontractor's scope of Work (domestic water, chilled water, steam, storm and roof leaders, pumps, tanks, water heaters, in-wall carriers, in-wall plumbing equipment, valves, gauges and control valves, insulation on piping, hangers and seismic bracing (if applicable), clean-outs, etc.). The Plumbing Subcontractor shall also include in the BIMs all Owner or Construction Manager provided equipment that is installed under this contract, concrete equipment pads, inertia pads, and accessibility requirements for above listed items for code and maintenance purposes. The Plumbing Subcontractor shall label the BIMs elements for all equipment under this contract as indicated in the Contract Documents.

c. **Fire Protection System.**

The **Fire Suppression System Subcontractor** will generate in a timely manner BIMs of the Fire Suppression Systems including, but not limited to, all risers, main and branch piping, heads, pumps, controllers, ATS, and equipment installed in the Fire Suppression System scope of Work (pre-action system, dry system, and main fire suppression systems, hangers and seismic bracing (if applicable), valve assemblies, drain valves, Fire Department valves, etc.) The Fire Suppression System Subcontractor shall also include in the BIMs concrete equipment pads, inertia pads, and access doors. The Fire Suppression System Subcontractor shall identify, under separate model element or drawing layer, access doors, and accessibility requirements for above listed items for code and maintenance purposes. The Fire Suppression Subcontractor shall label the BIMs elements for all equipment under this contract as indicated in the Contract Documents.

d. **Electrical.**

The Electrical Subcontractors, including, Low Voltage Subcontractor, Audio-Video Subcontractor, and Scoreboard-Ribbon Board Subcontractor, will generate in a timely manner BIMs of its respective electrical systems and/or devices including, but not limited to, all conduit systems, and equipment installation in its respective scopes of Work (individual conduits over 2", racks carrying more than 4 conduits 1" and smaller, panels, transformers, switch/paralleling gear, ATS', generators, cable tray, data racks, starters, VFD's, cast-in-place floor boxes, hangers and seismic bracing (if applicable), etc. for normal, emergency and isolated power systems or applicable specialty systems). Subcontractor shall also include in the BIMs equipment pads, inertia pads, light fixtures, exit signs, fire alarm components and devices, speakers, A/V equipment and devices, scoreboards, ribbon boards (and related devices), recessed electrical devices and access doors. Subcontractor shall identify under model element, or separate drawing layer access doors and accessibility requirements for above listed items for code and maintenance purposes. Electrical Subcontractor shall label the BIMs elements for all equipment under this contract as indicated in the Contract Documents.

e. **Structural.**

The **Structural Steel Supplier** will generate and provide in a timely manner BIMs of its scope of Work in addition to the contractually required 2D documentation. The BIMs will represent an "as fabricated" fully detailed level of information. The fabrication-level detailed model shall include, but is not limited to, major structural members such as trusses, beams, columns, etc., as well as secondary and miscellaneous steel connections including gusset plates, bracing, angles, knife plates, etc. necessary for the successful coordination of other building trades. These models shall be updated and maintained to reflect changes in

the Work as a result of coordination or design changes and shall be delivered at the end of the Project as an “as built” record model of the structural steel system in its entirety.

2. Minimum Hardware Requirements.

- a. TBD

3. Minimum Software Requirements.

- a. TBD

4. Structural / Architectural Features Required for Coordination

- a. Spatially accurate and dimensionally scalable building elements including but not limited to soffits, fixture locations, ceiling/floor tile locations, ADA clearances, interior wall framing, moment-frame side plates, cross bracing, gusset plates, beam stiffeners, miscellaneous steel framing, and other similar entities within the modeling space requiring coordination with the MEP trades.

5. Fully Annotated Installation Drawings.

- a. Fully annotated installation drawings shall include all text, dimensions, and annotations required for physical location of all elements shown on the drawings in the physical space at the time of their installation.

.04 Nothing Hits the Floor

Nothing Hits the Floor is an initiative to improve productivity, reduce waste and construction debris, improve housekeeping, and enhance worker safety on the project. Subcontractor agrees to actively participate in the program, which includes but is not limited to the following activities:

1. All materials brought into the building shall immediately be loaded onto wheeled carts or dollies to allow easy movement and facilitate organization within the work areas.
2. Flow of work activities shall be planned to minimize or eliminate off-cuts, debris, and excess materials from piling up on the floor. Waste and recycling containers in the building shall be wheeled to facilitate efficient placement and ease of debris transport.
3. All work areas shall be kept clean and well organized, and shall be broom swept, with no materials left on the floor at the end of the work day.
4. All materials small tools are to be neatly stored and organized and work areas kept free of waste, debris, surplus equipment and surplus materials.
5. Subcontractor shall participate, at Construction Manager's discretion, in a project-wide cleanup effort to maintain housekeeping of common areas.
6. Right-time material deliveries are encouraged. Materials delivered to jobsite shall be incorporated into the Work within 10 days of delivery. Materials stored on site shall be roped off and labeled with Subcontractor's name, Subcontractor's Foreman's name and phone number, and the date of material delivery.
7. Whenever feasible, assembly of components shall be accomplished at tabletop height to encourage more ergonomically correct posture for craftsmen.
8. Wherever feasible, Subcontractor shall unpackage materials and dispose of packaging waste at his own shop.
9. Wherever feasible, Subcontractor shall endeavor to utilize cordless tools to eliminate the trip hazards associated with electrical extension cords.
10. Wherever feasible, and with the prior approval of the Construction Manager, Subcontractor shall endeavor to prefabricate components off-site in a warehouse or other controlled environment to eliminate jobsite cut-off debris, improve quality, and reduce safety hazards.