CONSTRUCTION MANAGER’S MANUAL

Project: University of Missouri Healthcare
Women’s and Children’s Hospital
CP180131 - Exterior Envelope Replacement
Package #2

Issue Date: 9/5/2019
# TABLE OF CONTENTS

Table of Contents..............................................................................................................................................................5

1.00 Invitation to Bid ............................................................................................................................................................7

   .01 Project Information......................................................................................................................................................7

   .02 Bidding Procedure ......................................................................................................................................................8

   .03 Prebid Meeting ............................................................................................................................................................8

   .04 Project Team Information ..........................................................................................................................................8

   .05 Site Specific Safety Considerations ........................................................................................................................9

2.00 Bidding Instructions and Supplemental Information ..................................................................................................10

   .01 Instructions to Bidders .................................................................................................................................................10

   .03 Bid Affidavits ..............................................................................................................................................................16

   .04 Wage Requirements ................................................................................................................................................17

   .04 MU Healthcare Construction Guideline .....................................................................................................................18

3.00 Bid Packages and Bid Forms .........................................................................................................................................31

   .01 General Scope Requirements ..................................................................................................................................31

   .02 Bid Form ......................................................................................................................................................................33

   01.0 Final Cleaning .........................................................................................................................................................38

   02.0 Demolition .................................................................................................................................................................39

   04.0 Masonry ..................................................................................................................................................................41

   05.0 Structural and Miscellaneous Steel .........................................................................................................................43

   06.1 Finish Carpentry (remove and reinstall) ...................................................................................................................45

   06.2 Millwork and Carpentry (supply) ............................................................................................................................47

   07.0 Waterproofing, Joint Sealants .................................................................................................................................49

   07.5 Applied Fireproofing (unit pricing) ..........................................................................................................................50

   08.0 Doors, Frames & Hardware (Supply & Install) ......................................................................................................51

   09.0 Light Gauge Framing, Drywall, Acoustical ................................................................................................................53

   09.2 Tile and Commercial Flooring ...................................................................................................................................56

   09.4 Painting and Wallcovering .......................................................................................................................................58

   10.1 Building Specialties (Supply) ...................................................................................................................................60

Construction Manager’s Manual – MU Women’s & Children’s Hospital – Exterior Envelope Replacement Pkg #1
12.0 Window Treatment...................................................................................................................................................... 61
21.1 Fire Suppression.......................................................................................................................................................... 62
22.1 Plumbing .................................................................................................................................................................... 64
23.1 Heating, Ventilation, Air Conditioning .................................................................................................................. 67
26.1 Electrical, Communication and Electronic Safety .................................................................................................. 69
55.0 Scaffolding ................................................................................................................................................................. 71
4.00 Schedule ................................................................................................................................................................. 73
5.00 Other Forms............................................................................................................................................................... 74
.01 Insurance Requirements ............................................................................................................................................ 74
.02 Example Contracts, Forms, and Other Documents .............................................................................................. 76
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

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>University of Missouri Healthcare Women’s and Children’s Hospital CP180131 - Exterior Envelope Replacement Package #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nabholz Job Number:</td>
<td>08-19-3071</td>
</tr>
<tr>
<td>Jobsite Address:</td>
<td>404 North Keene Street, Columbia, MO, 65201</td>
</tr>
<tr>
<td>Job Description:</td>
<td>The University of Missouri Women’s and Children’s Hospital is a 5-story hospital facility with mechanical penthouse consisting of a total of 225,000 gross sqft of floor area. The Exterior Envelope Replacement project, CP180131, will replace and reconstruct the full exterior building envelope, consisting of the metal wall panels, window systems, vapor/air barriers, integral flashings, roof membranes and tuckpointing repairs to brick masonry stair towers and replacing interior finishes with strict adherence to infectious control and interim life safety measures. Diversity participation goals for this project are as follows: Minority Business Enterprise (MBE) of Ten Percent 10%; Women/Disadvantaged Business Enterprises/Veteran (WDV) of Ten Percent 10%; and Serviced Disabled Veteran (SDVE) of Three Percent 3% of the GMP. *The Wall Panels, Roofing and Glazing scopes of work have already bid in a previous package</td>
</tr>
<tr>
<td>LEED Certification:</td>
<td>None</td>
</tr>
<tr>
<td>Approximate Construction Start:</td>
<td>January, 2020</td>
</tr>
<tr>
<td>Approximate Construction Finish:</td>
<td>(a more detailed schedule to be issued)</td>
</tr>
<tr>
<td>Are BIM/VDC Practices Required?</td>
<td>No</td>
</tr>
<tr>
<td>Is this a “Nothing Hits the Floor” Project?</td>
<td>No</td>
</tr>
<tr>
<td>Is this a CCIP Project? (Contractor Controlled Insurance Program)</td>
<td>No</td>
</tr>
<tr>
<td>Is this an OCIP Project? (Owner Controlled Insurance Program)</td>
<td>No</td>
</tr>
</tbody>
</table>
.02 Bidding Procedure

<table>
<thead>
<tr>
<th>Bid Date:</th>
<th>10/2/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid Time:</td>
<td>1:30 PM</td>
</tr>
</tbody>
</table>

**Bid Submission Procedure:**
Bids should be sealed and delivered to:
University of Missouri – General Services Building
900 E Stadium Blvd
Columbia, MO 65211
Room L100 (Front Reception Desk)
ATTN: Nabholz Construction

Bid Bond Required: Bid Bond required for proposals greater than $100,000 – 5% Bid Bond. Obligee is Nabholz Construction Corporation.

RFI/Bid Question Deadline: 2:00 PM on 9/25/2019

**RFI/Bid Question Process:**
ALL COMMUNICATIONS TO GO THROUGH NABHOLZ
Bidders shall submit questions in writing to: daniel.dercher@nabholz.com by the established deadline. Questions should reference specific details, plan sheets, specifications, or bid manual sections.

.03 Prebid Meeting

<table>
<thead>
<tr>
<th>Prebid Meeting Date:</th>
<th>9/18/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prebid Meeting Time:</td>
<td>10:00 AM</td>
</tr>
</tbody>
</table>
| Prebid Meeting Location: | Women’s and Children’s Hospital
404 North Keene Street, Columbia, MO, 65201
Rooms 4, 5 and 6 |

Is the Prebid Mandatory? Attendance is not mandatory but is strongly encouraged and will be considered in final evaluation of proposals.

.04 Project Team Information

<table>
<thead>
<tr>
<th>Nabholz Office:</th>
<th>17300 W 116th St. Lenexa, KS 66219</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nabholz Senior Project Manager:</td>
<td>Jeremy Branson, 913.393.6552, <a href="mailto:jeremy.branson@nabholz.com">jeremy.branson@nabholz.com</a></td>
</tr>
<tr>
<td>Nabholz Project Manager:</td>
<td>Mitchell Fuemmeler, 816.985.7463, <a href="mailto:mitchell.fuemmeler@nabholz.com">mitchell.fuemmeler@nabholz.com</a></td>
</tr>
<tr>
<td>Nabholz General Superintendent:</td>
<td>Mickey Starkey, 913.490.9269, <a href="mailto:mickey.starkey@nabholz.com">mickey.starkey@nabholz.com</a></td>
</tr>
<tr>
<td>Nabholz Estimator:</td>
<td>Daniel Dercher, 913.393.6544, <a href="mailto:daniel.dercher@nabholz.com">daniel.dercher@nabholz.com</a></td>
</tr>
<tr>
<td>Architect:</td>
<td>International Architects Atelier</td>
</tr>
<tr>
<td>Architect Contact:</td>
<td>Majid Amirahmadi</td>
</tr>
</tbody>
</table>
.05 Site Specific Safety Considerations

<table>
<thead>
<tr>
<th>Project Safety Considerations</th>
<th>1.</th>
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<tbody>
<tr>
<td>(in addition to Nabholz Safety Standards)</td>
<td>2.</td>
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<td></td>
<td>3.</td>
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<td></td>
<td>4.</td>
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<td></td>
<td>5.</td>
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<td></td>
<td>6.</td>
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</tbody>
</table>

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.
n. Ability to meet diversity goals.

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.
.03 Bid Affidavits

(INSERT ADDITIONAL AFFIDAVITS, ETC. HERE)
.04 Wage Requirements

Annual Wage Order No. 25  
Boone County  

effective 8/28/2018

These are the wage rates applicable to this project in accordance with 13.6.1 of the general conditions. Overtime provisions are specified under 13.6.13

<table>
<thead>
<tr>
<th>OCCUPATIONAL TITLE</th>
<th>BASIC HOURLY RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asbestos Worker (H&amp;F) Insulator</td>
<td>$55.87</td>
</tr>
<tr>
<td>Boilermaker</td>
<td>$67.29</td>
</tr>
<tr>
<td>Bricklayer</td>
<td>$48.19</td>
</tr>
<tr>
<td>Carpenter, Pile Driver, Millwright, Lather, Linoleum Layer</td>
<td>$43.25</td>
</tr>
<tr>
<td>Cement Mason, Plasterer</td>
<td>$41.45</td>
</tr>
<tr>
<td>Communication Technician</td>
<td>$50.23</td>
</tr>
<tr>
<td>Electrician (Inside Wireman)</td>
<td>$50.23</td>
</tr>
<tr>
<td>Electrician (Outside-Line Construction/Lineman)</td>
<td>$66.35</td>
</tr>
<tr>
<td>Elevator Constructor</td>
<td>$80.35</td>
</tr>
<tr>
<td>Glazier</td>
<td>$40.30</td>
</tr>
<tr>
<td>Ironworker</td>
<td>$55.45</td>
</tr>
<tr>
<td>Laborer, 1st Semi Skilled Laborer, 2nd Semi Skilled Laborer</td>
<td>$37.55</td>
</tr>
<tr>
<td>Mason, Marble Mason, Marble Finisher, Terrazzo Worker, Terrazzo Finisher, Tile Setter, Tile Finisher</td>
<td>$35.29</td>
</tr>
<tr>
<td>Operating Engineer</td>
<td>$56.33</td>
</tr>
<tr>
<td>Painter</td>
<td>$36.67</td>
</tr>
<tr>
<td>Plumber, Pipefitter</td>
<td>$59.60</td>
</tr>
<tr>
<td>Roofer/Waterproofer</td>
<td>$45.59</td>
</tr>
<tr>
<td>Sheet Metal Worker</td>
<td>$49.43</td>
</tr>
<tr>
<td>Sprinkler Fitter - Fire Protection</td>
<td>$57.26</td>
</tr>
<tr>
<td>Truck Driver</td>
<td>$36.00</td>
</tr>
</tbody>
</table>
# Healthcare Construction Guideline
## SEPT 2017 Edition

### Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TRAINING REQUIREMENTS</td>
<td>2</td>
</tr>
<tr>
<td>2. EMERGENCY PHONE NUMBERS &amp; CONTACT INFORMATION</td>
<td>2</td>
</tr>
<tr>
<td>3. CONTRACTOR IDENTIFICATION BADGE</td>
<td>2</td>
</tr>
<tr>
<td>4. GENERAL SAFETY REQUIREMENTS FOR HEALTH CARE PROJECTS</td>
<td>3</td>
</tr>
<tr>
<td>5. CONSTRUCTION-RENOVATION-MAINTENANCE RISK ASSESSMENT (CRMRA)</td>
<td>3</td>
</tr>
<tr>
<td>6. CRM INFECTION CONTROL RISK MITIGATION CRITERIA (CRMICRMC)</td>
<td>4</td>
</tr>
<tr>
<td>7. CONSTRUCTION OF DUST BARRIER WALLS</td>
<td>4</td>
</tr>
<tr>
<td>8. VENTILATION AND NEGATIVE AIR PRESSURE REQUIREMENTS</td>
<td>4</td>
</tr>
<tr>
<td>9. INTERIM LIFE SAFETY MEASURES ASSESSMENT (ILSM)</td>
<td>7</td>
</tr>
<tr>
<td>10. NOISE AND VIBRATION CONTROL MANAGEMENT</td>
<td>7</td>
</tr>
<tr>
<td>11. ABOVE CEILING WORK PERMIT</td>
<td>7</td>
</tr>
<tr>
<td>12. LOCK OUT/TAG OUT PERMIT</td>
<td>8</td>
</tr>
<tr>
<td>13. UTILITY SYSTEMS SHUTDOWN &amp; SERVICE PERMIT</td>
<td>8</td>
</tr>
<tr>
<td>14. HOT WORK &amp; PERMIT</td>
<td>8</td>
</tr>
<tr>
<td>15. EXTERIOR CONSTRUCTION SITE REQUIREMENTS</td>
<td>9</td>
</tr>
<tr>
<td>16. REQUIRED FORMS, PERMITS, POSTINGS AND DOCUMENTATION</td>
<td>10</td>
</tr>
<tr>
<td>17. PROJECT CLEANING AND BARRIER REMOVAL PROCESS</td>
<td>10</td>
</tr>
<tr>
<td>18. APPROVED EQUIPMENT AND PRODUCT INFORMATION</td>
<td>11</td>
</tr>
<tr>
<td>19. HEALTH CARE CONSTRUCTION CLEANING DEFINITIONS</td>
<td>13</td>
</tr>
</tbody>
</table>
Section 1 Training Requirements

The purpose of the training requirements for contractors is to ensure that construction project work in and around the healthcare environment is managed in such a way to minimize health and safety risks associated with construction activities and that contractors know and understand their responsibilities.

Required Training
1. Contractor project managers, superintendents and subcontractor foremen will be required to attend the following training:
   - Minimum of One (1) hour training related to “Infection Control & Dust Barriers” and “Healthcare Construction Training for Contractors”.
2. Contractor project managers, superintendents and subcontractor foremen have the responsibility for ensuring that contractor employees are knowledgeable of the training requirements and direct their employees and project work accordingly.
3. Contractors will be required to utilize the MU Hospital online eMeditrack system for initiating work requests of various types, examples may include infection control barriers, utility outage, various permits required.
4. Contractors are required to report in and sign in and out at the designated location per building location each work day upon arrival and exit of the work location.

Training Agenda
At a minimum the topics to be covered in the training include the following:
2. Contractor Training Requirements.

Documentation
1. All employees who receive training will be required to sign their name on a training acknowledgement form stating that they have been oriented to the training requirements.
2. Healthcare Safety and Infection Control Requirements will be in the project contract documents for further review as required.
3. COMPLIANCE VIOLATIONS: Contractors/Vendors who violate the requirements of this Guideline are subject to disciplinary action and removal from the project.

Section 2 Emergency Phone Numbers & Contact Information
Telephone contacts should be used by the contractor for emergency situations which may arise during the construction project. Contact Plan will be identified and coordinated at the project Pre-Construction Meeting by the owner’s representative.

Section 3 Contractor Identification Badge
Contractors working in and around the MUHC facilities will be required to display and wear the “Contractor Identification Badge” and in accordance with the information displayed below. It is the responsibility of the contractor to provide the computer and color printer for reproduction of badges required. Consult the Owner’s Representative for the electronic file.

Contractor ID Badge
1. Contractor is to issue badges to employees as required. (Contractor to validate employee with proof of ID).
2. Contractor to edit the information, print in color, cut out the badges, fold in the center and insert. Contractor will provide badge holders.
3. Contractor shall keep a roster/log of badged employees by trade/subcontractor at the project jobsite for reference by the Owners Representative.
4. All badges to be collected and returned to PD&C at the end of the project.
5. Any orientation required will be discussed at the pre-construction meeting with the Owner’s Representative.
6. Contractor employees are to wear the badge on the upper chest facing forward unless approved otherwise for safety reasons.
7. All contractor superintendent and foreman shall attend “Healthcare Construction Training” and affix issued “T” sticker in the circle area on badge as shown. This will show evidence that the employee has completed training.
8. The Badge document will be provided to the Contractor to make copies and distribute as required. See Page HCG 12.

**Section 4 General Safety Requirements for Health Care Projects**

The General Contractor and its Subcontractors are responsible for understanding, planning and implementing the following requirements in the management of the project.

1. Make sure shoes/boots and clothing are free of excessive dirt/debris before entering and leaving the construction area.
2. If you leave any dust/dirt or tracks in the occupied area of the healthcare facility, you must stop and clean them up immediately by using a HEPA filtered vacuum and/or a clean dampened floor mop with a UMTH hospital approved furnished cleaning solution.
3. Assure that all construction material, supplies and tools are cleaned and covered with a clean covering material while transporting through the healthcare facility.
4. Ensure that the carts and wheels on tool and supply carts as well as trash/demolition waste carts are properly wiped clean before leaving the construction area. Cleaning/wiping solutions are provided by the hospital and must be approved per direction of the Owner’s Representative.
5. Staff and patients **ALWAYS** have priority and the “Right of Way” in the elevators and corridors.
6. Never use aerosol sprays or cleaning solvents that could dispense fumes, odors or cause potentially allergic reactions or medical problems to susceptible patients, staff or visitors.

**Section 5 Construction-Renovation-Maintenance Risk Assessment (CRMRA)**

The “Construction-Renovation-Maintenance Risk Assessment” (CRMRA) planning process establishes criteria to be used and measures to be taken for the protection of patients, healthcare workers, visitors and contractors, from construction/renovation activities which could lead to infections or compromise existing life safety systems in the healthcare facility.

Once the Contractor is selected, they will be required, and the Subcontractors as applicable to participate in the “CRMRA” planning process for orientation of project requirements and help in identifying any additional project needs or risks prior to any contract construction work commencing.

The owner’s representative will work with the contractor to coordinate and facilitate these CRMRA planning activities with MUHC engineering services, infection control department and others as required during the duration of the project.

**Section 6 Construction – Renovation – Maintenance Infection Control Risk Mitigation Criteria**

The “Construction–Renovation–Maintenance Infection Control Risk Mitigation Criteria” (CRMICRMC) is a process to evaluate construction projects for required interventions during construction in order to minimize Hospital Acquired Infections (HAI’s), and controlling dispersal of air and/or water-borne infectious agents concealed within the building components.

All construction activities shall be defined and managed in such a way that occupant’s exposure to dust, moisture and their accompanying hazards is limited.

1. **Construction–Renovation–Maintenance Infection Control Risk Mitigation Criteria and the Construction–Renovation–Maintenance Infection Control Risk Mitigation Permit** which will be used for all MUHC construction and renovation projects.
2. Any work required outside the main project limits will require a NEW Infection Control Risk Assessment.
3. The owner’s representatives and Contractor will work together to coordinate the assessment and determine the requirements and permit.
4. The owner’s representative will ensure that all required infection control interventions and needed life safety measures required for the project are in place by the contractor prior to starting work. (i.e. barrier walls, tacky mats, required exits, etc.)
5. The contractor shall follow all requirements to support the “Construction – Renovation- Maintenance Infection Control Risk Mitigation Criteria”.
6. The contract documents and CRM IC Permit will provide requirements specific to the project.
7. Work outside of construction limits. Prior to contractor performing any work outside of construction limits, the owner’s representative must be notified.
8. Contractors that violate the requirements of the “Construction – Renovation- Maintenance Infection Control Risk Mitigation Criteria/Permit” will be removed from the project.

**Section 7 Construction of Dust Barrier Walls**

Infection control is the number one health concern in a construction project. Infection can occur when workers are not cautious about keeping dust, bacteria, mold, etc. from becoming airborne during the construction process. For these reasons, barrier walls are built to isolate dust and fumes in the construction site to separate the patient care and public areas of the healthcare facility.

**Dust Barriers Walls and Contamination Reduction**

1. A signed copy of the “CRM Infection Control Construction Permit” shall be kept at the job site at all times. Large AND small projects may have several “CRM Infection Control Construction Permits” issued as project phases, needs and assessments evolve.
2. Barriers are required to contain the ceiling envelope, chases, interstitial spaces, etc.
3. When access and exiting to the construction site can only be accomplished through a public area, the interior space of the construction site must be cleaned once every 8 – hour shift to control excessive dust and ventilation filtering issues. Debris shall be removed daily.
4. A temporary fire resistant 6 mil., polyethylene dust barrier is required to control dust while the rigid barrier is being constructed as well as at the end of the job during removal of the rigid barrier.
5. Contractors are responsible to ensure that barrier systems and walls are properly constructed, penetrations sealed and maintained for effectiveness for the duration of the project. Anytime polyethylene is used in a control barrier, it must be fire resistant, 6 mil. See “Approved Equipment and Product Information”.
6. Once barrier walls are built they are required to be cleaned or wiped down prior to the start of work.
7. Barrier doors and exits from the construction site must be installed with a closer and kept in good working order with positive latching.
8. Keep doors closed except when in use in order to minimize migration of dust and to maintain negative air pressure relationships.
9. Doors must have a seal/door sweep installed at the undercut and weather stripping around the metal frame to control the migration of dust from the construction site.
10. Doors in barrier walls which are not in use by the contractor to the public spaces must be sealed off and taped around the door, frame and threshold undercut, in order to minimize migration of dust and to maintain negative air pressure requirements.
11. If an elevator, dumb waiter, pneumatic tube system, stairway, linen chute, or any other chased or open type building system is located within the construction site, a barrier wall system will be required to be built around the open building system from deck to deck and properly sealed at top, bottom and sidewalls.
12. Upon completion of barriers and prior to beginning work, the contractor shall notify the owner’s representative and healthcare construction compliance manager to coordinate an inspection and verify that the barrier wall meets requirements and that acceptable negative air pressure is being achieved.

**Special Notes:**

1. See “Barrier Wall Design Details” for additional requirements.
Section 8 Ventilation and Negative Air Pressure Requirements

The first step is building of dust barrier walls to isolate the construction site from patient care and public areas of the healthcare facility to protect patients and the public from construction related dust, fumes and other activities. The effectiveness of barrier walls is minimal unless the construction site is also under negative air pressure. (i.e. air must flow from clean or public spaces into the dirty or construction site).

The following are the “Ventilation and Negative Air Pressure Requirements” which contractors shall strictly follow in the management and construction of their projects.

Negative Air Pressure Requirements

1. The contractor shall provide all necessary “Negative Air HEPA Filtered Ventilation Units” required for the negative air requirements of the construction area.
2. See section in this manual on “Approved Equipment and Product Information” for more information.
3. The contractor will work with the owner’s representative to determine best methods and equipment setup requirements for the project.
4. The contractor shall run the “Negative Air HEPA Filtered Ventilation Unit” in the work zone location prior to starting any barrier wall construction or work.
5. “Negative Air HEPA Filtered Ventilation Units”, may be connected to normal or emergency power and shall run continuously, 24/7. Critical areas of the healthcare facility may require the HEPA filtered ventilation units to be connected to emergency power only.
6. A secondary method to maintain negative air pressure is by using the hospital’s exhaust system attached to the “Negative Air HEPA Filtered Ventilation Units”. This process and installation must be approved by the owner’s representative.
7. Pre-Filters shall be changed at least twice weekly during demolition and drywall sanding and a minimum of once a week during other times. This frequency requirement may be relaxed for lower risk projects and on prior approval from the owner’s representative.
8. The contractor shall furnish and install the negative air-monitoring device to monitor daily negative air pressure - .01 inches of water column. See section in this manual on “Approved Equipment and Product Information”.
9. The contractor shall record daily on the “Negative Air Pressure and Filter Change Log” the air pressure reading in the construction area to ensure that appropriate negative air pressure is being maintained.
10. See “Negative Air Pressure and Filter Change Log” form at the end of this section.

Barrier Walls and Negative Air Ventilation

Special Infection Control Requirements and Interventions for Contractors When Working In (Surgical OR’s, Sterile Processing, Bone Marrow Transplant)

Construction activities can lead to increased Aspergillus counts in the air and increased risk for Aspergillus infections in high risk patients. In an effort to minimize and contain dust, and lessen the possibility of microbial contamination during renovation work in high risk special care units, Interventions are typically initiated and maintained until the completion of the project. The owner’s representative, MUHC infection control and engineering services departments will be involved in contractor orientation for project work procedures in high risk special care units.

Special work scheduling in these special care units may be a requirement of the project and contractor.
# Negative Air Pressure and Filter Change Log

**Date:**

**Time:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Negative Air</th>
<th>Unit No.</th>
<th>Inspected By</th>
<th>Actions Taken (Filter Change, Pre Filter, HEPA, Other)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Pressure Reading</td>
<td></td>
</tr>
</tbody>
</table>

Contractor to complete the **Negative Air Pressure and Filter Change Log** daily at the start of each work shift and maintain completed forms in the project safety file for future review. Post this log inside construction site entrance for use and review.

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<table>
<thead>
<tr>
<th>Pressure Relationship Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Negative</td>
</tr>
</tbody>
</table>

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Construction Manager’s Manual – MU Women’s & Children’s Hospital – Exterior Envelope Replacement Pkg #1
Section 9  Interim Life Safety Measures Assessment (ILSM)

Interim Life Safety Measures (ILSM) are a series of administrative actions that must be taken to compensate temporarily for the hazards posed by existing NFPA Life Safety Code 101, 2014 edition deficiencies, other building code issues or construction activities. Examples of when construction activities require ILSM’s to be implemented are as follows:

1. Fire alarm system, detection, and/or sprinkler system are impaired or disabled.
2. Normal exits or exit routes and/or exit lighting have been compromised.
3. Re-routing of traffic due to construction activities.
4. Temporary narrowing of the corridor.
5. Deficiencies in fire and/or smoke separations and systems caused by construction activities. (Changes to wall, door, dampers, penetrations, etc.)
8. Hot work.

Whenever an “Interim Life Safety Measure” is identified for implementation during the construction project, there will typically be measures or actions required by both the MUHC engineering services department as well as the contractor. The contractor has the responsibility prior to the beginning of work and throughout the project to become familiar with the ILSM in order to plan and identify what construction related activities will require an evaluation of ILSM’s as noted in the ILSM. The “Interim Life Safety Measures Evaluation” is a required team effort.

Section 10  Noise and Vibration Control Management

Construction related noise and vibration control and mitigation measures are to be implemented when the contractor is working in and around healthcare facilities. The contractor shall work with the owner’s representative to develop means and methods for controlling excessive noise and vibration during construction.

Section 11  Above Ceiling Work Permit

All contractors who need access above ceilings in the public areas of the healthcare facility and outside the approved construction site shall be required to obtain an “Above Ceiling Work Permit” from the owner’s representative prior to disrupting or lifting out ceiling tiles. The contractor shall notify the owner’s representative fourteen (14) days prior to the need for ceiling access in order to process and evaluate any special requirements of the permit.

General Requirements for Working above Ceilings (“Above Ceiling Permit Required”)

1. The Construction-Renovation-Maintenance Infection Control Risk Mitigation Permit issued for the work activity will note specifics required for Barrier Types.
2. Any cable and wiring pulls through the healthcare facility which will require a ceiling disturbance must be approved in advance by obtaining an “Above Ceiling Work Permit”.
3. Ceiling tiles must not be left displaced by the contractor if he walks away from the area unless the area has been contained by an approved “Dust Barrier”.
4. If a ceiling tile is damaged by the contractor he should notify the owner’s representative to acquire a new tile for replacement.
5. All debris shall be cleaned up by the contractor daily when working in cabling and electrical closets.
6. Pulling of communication cables in a patient care or other critical care areas will require special scheduling. Consult with the owner’s representative for coordination.
7. When cables must be pulled in an active patient care unit, a dust partition must be used at the site of entry and exit of the cable.
8. The dust partition may be attached to the false ceiling because taking it to deck may interfere with the work.
9. The site of entry and exit of the cable or other above ceiling work must be HEPA vacuumed (ceiling tiles and pipes) before the work begins.

Section 12  Lock Out/Tag out Permit
The contractor shall give a minimum fourteen (14) working days notice to the owner’s representative for shutdown work on electrical systems or other critical utility systems which could significantly impact the healthcare facilities operations, the contractor will be required to plan these “Lock Out/Tag Out” activities ten (14) days in advance. Major utility shutdowns may require weeks of notice and planning. The contractor shall work with the owner’s representative to identify these time planning requirements.

Section 13  Utility Systems Shutdown & Service Permit
The “Utility Systems Shutdown & Service Permit” is to be used when work on an existing utility system may cause a disruption within the MUHC facility.

“Utility Systems” shall be defined as any system that would hinder the delivery of patient care and hospital operations should the system be interrupted for any reason. Planning for this work usually requires a contingency plan by the healthcare facility management department to address any failure of the utility system.

Utility Shutdown
Any and all utility or system connections, shut-off, or interruptions must be scheduled with the owner’s representative prior to commencement of the work. This work shall be defined as a “Utility Shutdown” and notice shall be made to the owner’s representative to coordinate the request and facilitation.

Utility Service - (System must be worked live or energized)
In addition to utility system connection, shut-off, or interruption, the contractor must also schedule any work on existing utility systems that either do not require interruption or cannot be interrupted to accomplish the work. This type of work shall be defined as “Utility Service” and notice shall be made to the owner’s representative. The contractor shall give up to 14 working days’ notice to the owner’s representative in order to properly plan and coordinate required activities.

All permits are to be posted at the job site location for the duration of the permit. When complete the contractor shall file the permits in the contractor job safety file for future review as may be required.

Section 14  Hot Work & Permit
Hot work shall be defined as welding, brazing, cutting soldering, grinding, or other activities which produce sparks or use flame which are capable of initiating fires or explosions.

All contractors performing construction, renovation and installation work for MUHC facilities are required to follow the requirements and provisions of NFPA 51B and the owner’s representative procedures related to “Hot Work” and obtaining a “Hot Work Permit”.

The following are the requirements for a contractor to obtain a “Hot Work Permit”.

1. Contractors shall contact the owner’s representative two (2) days, forty eight (48) hours in advance to request a hot work permit. A request for complex projects which requires extensive planning on behalf of the owner’s representative may require a longer notice period.
2. All hot work sites are inspected by the owner’s representative using the requirements printed on the “Hot Work Permit”.
3. The owner’s representative will issue a “Hot Work Permit” tag to be attached in the vicinity of the actual hot work being performed. Upon completion, the hot work tag shall be returned to the owner’s representative.

4. “Hot Work Permits” will be issued for only one shift unless other arrangements have been made with owner’s representative. All permits expire 30 minutes prior to the end of the shift.

5. If hot work cannot be completed within one work shift, the contractor is responsible for obtaining approval for a revised permit extension from the owner’s representative. The contractor is responsible for meeting all the safety requirements required by the permit for any and all extensions granted.

6. The contractor shall be responsible for supplying a trained worker for the requirement of a fire watch during the actual hot work. The fire watch’s only responsibility will be as a fire watch.

7. A fire watch shall be provided for 30 minutes following the completion of work, including during lunch and breaks by the contractor.

8. The contractor shall provide at a minimum a ten pound (10) ABC fire extinguisher that has a current, valid inspection tag.

9. A copy of the “Hot Work Permit” shall be kept in the general contractors project file for future review as may be required.

10. The contractor shall upload completed Hot Work Permits to the owner’s electronic construction document program (Projex 4) in the Hot Work Permit folder for the project not less than on a weekly basis or as instructed by the owner’s representative.

Section 15 Exterior Construction Site Helicopter Landings
Any contractor doing construction work or activities on the hospital grounds, property or on the roof of the buildings is required to follow the guidelines regarding construction activities during helicopter landings on the helipad. The contractor shall coordinate with the owner’s representative roof access, roof protection, keying, roof and safety precautions to be taken when working close to the roof edge regarding helicopter landings and contractor responsibilities during this time. In addition, the placement of vertical installations such as tall lighting poles and the use of project cranes or hoisting on the hospital property might affect the “Final Approach and Take Off” of medical center ambulance helicopters. It is essential that the contractor plans these types of activities with the owner’s representative prior to the beginning of work.
Section 16  Required Forms, Permits, Postings and Documentation

Note: Refer to the sections in the “Healthcare Construction Requirements” manual for detailed information on each form and permit approval procedure.

<table>
<thead>
<tr>
<th>Category</th>
<th>Required Notice</th>
<th>Form</th>
<th>Permit Approval</th>
<th>Job Site Posting</th>
<th>Contractor Safety File</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM Infection Control Construction Permit</td>
<td>Before Starting</td>
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<td>Above Ceiling Permit</td>
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<td>Utility Systems Shutdown &amp; Service Permit</td>
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<td>Fire Protection System Impairment Permit</td>
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<td>Hot Work Permit</td>
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<td>Lock Out/Tag Out Permit</td>
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<td>CRM Interim Life Safety Measures Assessment</td>
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<td>Negative Air Pressure Log</td>
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<td>CRM Risk Assessment</td>
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<td>Construction Safety Deficiency Notice</td>
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<td>Violations and “Notice To Contractor”</td>
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<td>Hazardous Material Abatement Signage</td>
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<td>Required Construction Jobsite Signage</td>
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<td>Interim Life Safety Signage</td>
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<td>Contractor &amp; Employee Training Acknowledgment</td>
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<tr>
<td>Contractor Safety Meeting Minutes</td>
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</table>

The contractor will be required to furnish and install a “Project Safety Information” bulletin board on their project site for posting of required safety information. Small, short duration projects may have this requirement waived by the owner’s representative.

LEGEND  CRM = Construction-Renovation-Maintenance

Section 17  Project Cleaning and Barrier Removal Process

The following is the typical sequence prior to the removal of barrier walls. With the barrier in place and with the “Negative Air HEPA Filtered Ventilation Unit” running, the contractor will HEPA vacuum all horizontal and vertical surfaces.
1. Clean the covers that are isolating the HVAC ducts.
2. Clean the outside of the negative air HEPA machine and its exhaust duct.
3. The contractor shall notify the owner’s representative to schedule a walk-through of the clean space for inspection and approval prior to removal of the barrier wall.
4. Following all job site cleaning and flushing of plumbing, the contractor can begin the barrier cleaning process.

Construction Manager’s Manual – MU Women’s & Children’s Hospital – Exterior Envelope Replacement Pkg #1
5. During construction or removal of barrier walls, fire resistant polyethylene barriers must be put into place to help control any construction or demolition dust of the barrier wall system.

6. MUHC must approve removal of any Infection Control or other barriers. Prior to removal of the temporary fire resistant polyethylene barrier, it shall be vacuumed with a HEPA vacuum to eliminate any dust attached to the plastic. The polyethylene barrier is then wiped down with the use of damp cleaning cloths and using a hospital furnished approved infection control cleaning solution. The contractor shall roll or fold the polyethylene in on itself creating as little dust as possible prior to transporting out of the building in a covered cart.

7. Remove the covers or caps from any and all HVAC system supply, return and exhaust ducts and restore the HVAC system.

8. The “Negative Air HEPA Filtered Ventilation Unit” is removed from the project site once the HVAC system is verified is operating properly.

If Air Sampling Is Required
When construction/renovation is done and completed in or near a high risk assessment critical care unit (i.e. Burn Unit, Operating Rooms, Intensive Care, etc.) there may be a requirement to do air sampling after the negative air system has been removed and the building HVAC system has been restored. This will be a requirement only if the infection control department determines the need at the end of the project and prior to occupancy.

Section 18 Approved Equipment and Product Information

“NEGATIVE AIR HEPA FILTERED VENTILATION UNIT”, HEPA filter equipped negative air machines that provide rough in filters, primary filters and a HEPA final filter. Rating of 300 to 2000 cubic feet per minute, (CFM). HEPA filters must be a minimum 99.97% efficient @ 0.3 microns. Differential pressure alarm required if not installed in another fashion to monitor construction site negative air of – 0.01 water column. Or approved equal.

- MICRO Trap Corporation, Models MT 1000 or Model MT 2000. 1300 W. Steel Road, No. 2 Morrisville, PA 19067 (215) 295-8208 or (877) 646-8208.
- ABATEMENT Technologies, Inc. Model HEPA-AIRE PAS2400HC Portable Air Scrubber or Model PAS1200HC 605 Satellite Blvd. Suite 300 Suwanee, GA 30024 (800) 634-9091

“HEPA VACUUM”, A shop style vacuum with a HEPA filter cartridge at 99.97% filtration @ 0.3 microns. Or approved equal.

- ABATEMENT Technologies Inc. Model V1300H Hip Mounted HEPA Vacuum, designed for use on scaffolding and mobile conditions such as ceiling tile type cleaning. Lightweight at 6.4 lbs. 605 Satellite Blvd. Suite 300 Suwanee, GA 30024 (800) 634-9091.

“ADHESIVE WALK OFF MATS”, 24” x 36” Tacky Mat. Peel up dirty layer and dispose to reveal a new, fresh clean tacky mat.

- Tacky walk off mat No. 5838 24” x 36”, 60 tacky mats to a unit. Four units per case. 3M Company, St. Paul, MN 55144 (888) 364-3577. Or approved equal.

“NEGATIVE AIR PRESSURE INDICATOR”, Manometer.
• Model “Mark II Model No. 25 inclined-vertical Manometer. Dwyer Instruments Inc. PO Box 373, Michigan City, IN 46361 (219) 879-2000.
• MICRO Trap Corporation, Model Tri/Mon, digital recording manometer for tracking differential pressure. 1300 W. Steel Road, No. 2 Morrisville, PA 19067 (215) 295-8208 or (877) 646-8208.

**PORTABLE WORK ENCLOSURE**, For temporary fire resistant polyethylene dust barrier. System components supplier of zip poles, door opening access zippers, dust sealing system parts, etc.

• Zip Wall, LLC. 37 Broadway, Arlington, MA 02474 (800) 718-2255. Or approved equal.


Example of Badge for Contractor use -

![Example of Badge for Contractor use](image_url)
SECTION 19  Health Care Construction Cleaning Definitions

Construction Clean
1. Remove tools & equipment from the work area.
2. Remove all bulk trash from the work area.
3. Thoroughly sweep all floor surfaces in the work area utilizing a dust compound (floor sweep) material.
4. Dry wipe all horizontal & vertical surfaces in the work area. Surfaces to include but not limited to walls, window sills, doors & door frames, base trim, casework (inside & out), fixtures, and wall-mounted equipment.
5. Sweep all floor surfaces utilizing a dust mop.
6. Wet mop all floor surfaces.

Thorough Clean
1. To be implemented only after Construction Clean procedures have been completed.
2. Wet wipe all horizontal and vertical surfaces utilizing a MUHC – Infection Control Department approved germicidal disinfectant. Surfaces to include but not limited to walls, window sills, doors & door frames, base trim, casework (inside & out), all fixtures, and wall-mounted equipment.
3. Wet mop all floor surfaces utilizing a MUHC Infection Control Department approved germicidal disinfectant.

Terminal Clean
1. To be implemented only after Through Clean procedures have been completed.
2. Cleaning procedures shall be conducted by MUHC trained Environmental Services, Sterile Processing or Surgical Services staff only.
3. Thoroughly clean and disinfect surfaces on the ceiling such as diffusers, light fixtures, and ceiling mounted devices & equipment.
4. Thoroughly clean and disinfect all equipment in the work area.
5. Thoroughly clean and disinfect all flooring including moving equipment & furnishings to allow access to all floor surfaces.
6. Move all portable equipment and furnishings away from the walls. Wet wipe and disinfect all wall surfaces and wall mounted equipment.
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. All workers are required to have the OSHA 10. Nabholz can provide arrangements for training if needed.
14. A company logo and phone number of any Contractor of any tier must be displayed on vehicles when parked on or near the project.
15. The Project will be staged on an existing, occupied, operating Healthcare campus. Avoid interaction with patients and owner’s 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.
16. Deliveries of building materials will give right of way to hospital traffic.
17. Construction activities that generate high decibel noise levels must be scheduled and coordinated with Construction Manager’s Project Superintendent.

18. Smoking, the use of tobacco, or the use of products containing tobacco in any form is prohibited on any property owned or leased by MU Women’s and Children’s Hospital.
.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 ________________

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. **Exterior LED Lighting**
   - Add/Deduct $ ____________

2. **Re-Paint Existing Exterior Metal Panels**
   - Add/Deduct $ ____________

3. **Lightning Protection**
   - Add/Deduct $ ____________

4. ____________________________
   - Add/Deduct $ ____________

### Voluntary Alternates

1. ____________________________
   - Add/Deduct $ ____________

2. ____________________________
   - Add/Deduct $ ____________

3. ____________________________
   - Add/Deduct $ ____________

4. ____________________________
   - Add/Deduct $ ____________

### Unit Pricing (to be used for both additive and deductive change orders)

1. ____________________________
   - $ ____________

2. ____________________________
   - $ ____________

3. ____________________________
   - $ ____________

4. ____________________________
   - $ ____________

5. ____________________________
   - $ ____________

6. ____________________________
   - $ ____________

7. ____________________________
   - $ ____________

8. ____________________________
   - $ ____________

9. ____________________________
   - $ ____________

10. ____________________________
    - $ ____________
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.

Bonding

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

Yes/No

Performance and Payment Bond Rate Cost in Percent________

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 5.02. 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 __________________
# SUPPLIER DIVERSITY COMPLIANCE EVALUATION FORM

This form shall be completed by all Subcontractors, Suppliers and Venders, regardless of any tier, and submitted with the Bidder's Statement of Qualifications.

The undersigned submits the following data with respect to this firm's assurance to meet the goal for Supplier Diversity participation.

<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>I.</td>
<td>Project:</td>
</tr>
<tr>
<td>II.</td>
<td>Name of Contractor:</td>
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<tr>
<td>III.</td>
<td>Name of Diverse Firm:</td>
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<tr>
<td></td>
<td>Address:</td>
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<tr>
<td></td>
<td>Phone No.:</td>
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<td>E-mail:</td>
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<td>Status (check one) MBE WBE Veteran Service Disabled Veteran DBE</td>
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<tr>
<td>IV.</td>
<td>Describe the subcontract work to be performed. (List Base Bid work and any Alternate work separately):</td>
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<td>Base Bid:</td>
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<td>Alternate(s), (Identify separately):</td>
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<td>V.</td>
<td>Dollar amount of contract to be subcontracted to the Diverse firm:</td>
</tr>
<tr>
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<td>Base Bid:</td>
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<tr>
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<td>Alternate(s), (Identify separately):</td>
</tr>
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<td>VI.</td>
<td>Is the proposed subcontractor listed in the Directory of M/W/DBE Vendors and/or the Directory of Veterans maintained by the State of Missouri?</td>
</tr>
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<td>Yes______ No______</td>
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</tbody>
</table>
VII. Is the proposed subcontractor certified as a diverse supplier by any of the following: federal government agencies, state agencies, State of Missouri city or county government agencies, Minority and/or WBE certifying agencies?

Yes _____  No _____  If yes, please provide details and attach a copy of the certification.

___________________________________________________________________________________

___________________________________________________________________________________

___________________________________________________________________________________

VIII. Does the proposed subcontractor have a signed document from their attorney certifying the Supplier as a Diverse and meeting the 51% owned and committed requirement?

Yes _____  No _____  If yes, please attach letter.

___________________________________________________________________________________

Signature:                                                                                                                                                  

Name:                                                                                                                                                           

Title:                                                                                                                                                          

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 1 – 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.

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. Wet mop porcelain and ceramic tile floors.
7. Wet mop terrazzo floors.
8. Dust clean all countertops and millwork drawers and cabinets.
9. Clean light fixtures, sinks and tub plumbing fixtures and trim.

Section C: Project-Specific Exclusions:

Section D: Project Alternates:

Section E: Unit Pricing:
1. Provide Labor Rates

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 1 – General Requirements
- Section 017419 – Construction Waste Management
- 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. Remove building foundations below grade as required by contract documents. Backfill and compact to bring up to the elevation of the surrounding grade.
12. 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.
13. 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.
14. Leave job site “shovel clean” in areas of building demolition.
15. Leave jobsite “broom clean” in areas of interior demolition.

**Section B: Project Specific Requirements:**

1. The intent of this package is to include everything that will be demo’d, i.e.: taken to a dumpster. All salvaged items will be by others. MEP/FP will be by others.
2. All demolition work will take place from exterior scaffold. Interior access will be from exterior scaffold.
3. Include all demolition, Sheets D100 – D403
4. Include all “remove” items as noted in section 024119
5. Include demo of window coverings
6. Include demo wall tile
7. Include stripping of wallpaper and wall coverings that are not being salvaged

**Section C: Project-Specific Exclusions:**

1. All items on the interior demolition plans that are noted to be salvaged and reinstalled will by others.
2. Items noted as “Remove and Salvage”, “Remove and Reinstall” in section 024119 are by Finish Carpentry package.
3. Flooring and base will be demo’d by flooring package
4. Abatement is by owner

**Section D: Project Alternates:**

**Section E: Unit Pricing:**

1. Provide Labor Rates

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 0 –
- Division 1 – General Requirements
- Section 045000 – Masonry Restoration

*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 by others 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 workday. 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. Include all cold-weather and hot-weather protection per construction documents necessary to maintain Project Schedule. (see project alternates below)
23. Include flue liners, ash dumps and fireplace units if required.

**Section B: Project Specific Requirements:**

**Section C: Project-Specific Exclusions:**

**Section D: Project Alternates:**

1. Provide unit pricing for replacement for cracked or damaged bricks and rake and tuckpointing of mortar joints.

**Section E: Unit Pricing:**

1. Provide Labor Rates

END OF BID PACKAGE
05.0 Structural and Miscellaneous Steel

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 1 – General Requirements
• Section 051200 – Structural Steel
• Section 055000 – Metal Fabrications
• Section 077200 – Roof Accessories (fall protection system)

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade-Specific Requirements

Supply:
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.
Install:

13. 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.
14. Erect all structural and miscellaneous steel furnished in Bid Package 009.05.01 Structural and Miscellaneous Steel (Supply).
15. 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.
16. Protect surfaces from welding equipment and activities.
17. Provide temporary bracing and shoring as needed to perform this scope of work.
18. Include all materials and equipment for stud welding if required including power source.
19. Include base plate elevations.
20. All steel exposed to view shall be oil free, have welds ground smooth, and be of sufficient quality for an exposed and finished surface.
21. 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.

Section B: Project Specific Requirements:

1. Include the roof fall protection system, including the delegated design. Coordinate locations with Roofing contractor who will cut openings and seal/weatherproof.

Section C: Project-Specific Exclusions:

1. Ceilings will be removed and replaced by others.
2. Exclude infectious control measures

Section D: Project Alternates:

1. Include the Fall protection system in your base bid. Provide a voluntary deduct for this item on the bid form.

Section E: Unit Pricing:

1. Provide Labor Rates

END OF BID PACKAGE
06.1 Finish Carpentry (remove and reinstall)

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 1 – General Requirements
- Section 024119 – Selective Demolition
- Section 064023 – Interior Architectural Woodwork
- Section 081113 – Hollow Metal Doors and Frames
- Section 087100 – Door Hardware
- Section 095113 – Acoustical Panel Ceilings
- Section 102600 – Wall Protection
- Section 102800 – Toilet and Bath Accessories

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements
1. Keep perimeter lines straight, level, and plumb. Provide all grounds, clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation of new and salvaged items.
2. Immediately upon discovery, bring any damaged items to the attention of Project Superintendent.

Casework Install:
3. Install all cabinet units, shelving units, vanity units, countertops, splashes, running trim, display cases and windowsills as indicated in the construction documents.
4. Install all associated brackets and supports.
5. Install finish hardware for millwork and cabinetry including key locks per construction documents.
6. Install solid surface tops, sills and treads per contract documents.
7. Provide all necessary cut outs for plumbing and electrical fixtures as required, and all cut outs as required for appliances.
8. Install approved and matching colored caulking for each color of plastic laminate or solid surface material supplied.
9. Set and adjust all door and drawer margins after installation at the project site.
10. 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.
11. Provide protection of countertops after installation, to be removed at the direction of the Construction Manager.

Section B: Project Specific Requirements:

1. Include all items noted as “Remove and Salvage”, “Remove and Reinstall” in section 024119.
2. Remove and reinstall all division 10 and 11 items, including but not limited to: benches, countertops, shelves, visual display, interior signage, toilet accessories, toilet partitions, glove racks, hand sanitizers, tool racks, coat racks, document displays, cup dispensers, patient information boards, picture rails, crash/hand/bumper rails, wall protection, paneling, lockers, TV/monitor brackets, nurse curtains and track.
3. Include installation of new division 10 items.
4. Include salvage and reinstall of acoustical ceilings.
5. Include installation of new windowsills and casework.
6. Include removal and reinstall of existing casework, countertops, millwork, trim. Include patching and modifications to existing. Casework, countertop, millwork and trim material will be supplied by Millwork and Cabinetry package. Close coordination will be required.
7. Include salvage and reinstall of existing hollow metal frames, door leaves and hardware as noted, interior and exterior.
8. Salvage and reinstall shower stalls.
9. The intent is for salvaged items to be carefully removed and stored within the room or adjacent rooms within the hospital.
10. All removed items shall be labeled, tagged and covered with plastic to ensure installation back to existing conditions. - per section 024119.

Section C: Project-Specific Exclusions:

1. Items noted as “Remove” in section 024119 are by Demolition package.
2. Wall demolition is by Demolition package.
3. MEP/FP salvage and reinstall is by MEP/FP packages.

Section D: Project Alternates:

Section E: Unit Pricing:

1. The scope of this package is expected to be adjusted based on actual conditions. Each area is to be coordinated with Nabholz for what is required to complete the exterior wall scope. Provide all applicable unit pricing for items that will be added or removed from this scope. Including but not limited to removal and reinstallation of: Division 10 and 11 items, casework, trim, acoustical ceilings.
2. Provide labor rates.

END OF BID PACKAGE
06.2 Millwork and Carpentry (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 1 – General Requirements
- Section 064023 – Interior Architectural Woodwork

*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 with Project Superintendent no later than 30 days prior to start of work.
4. Furnish all cabinet units, shelving units, vanity units, countertops, splashes, running trim, display cases and windowsills 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. Furnish all associated brackets and supports.
7. Furnish finish hardware for millwork and cabinetry including key locks per construction documents.
8. Furnish 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 approved and matching colored caulking for each color of plastic laminate or solid surface material supplied.
11. Include all off loading, and shakedown of materials.

**Section B: Project Specific Requirements:**
1. The intent of the package is to supply new windows sills and to be on hand to supply new casework for items that are identified as needing replacement at each phase. The ability to custom fabricate and meet the tight timelines of each phase will be part of the evaluation.
Section C: Project-Specific Exclusions:

1. Removal and reinstall of existing casework is by the Finish Carpentry package.

Section D: Project Alternates:

Section E: Unit Pricing:

1. Provide any unit pricing available for what will be required for the replacement of existing casework, counter tops, millwork, trim with new. Include all applicable lead times.

END OF BID PACKAGE
07.0 Waterproofing, 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 1 – General Requirements
- Section 072726 – Fluid-Applied Membrane Air Barrier
- Section 079200 – Joint Sealants

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. Furnish and install underslab vapor barrier if not polyfilm.
6. Provide all joint sealants required or indicated at exterior and interior masonry constructed walls and partitions.
7. Provide water-repellent and elastomeric coatings for exposed concrete and masonry surfaces. Clean surfaces prior to commencement of work per construction documents.
8. Provide joint sealants and incidentals as necessary and per the bid documents at building exterior to secure a water-tight building envelope.
9. Include joint sealants in and surrounding site paving.
10. Confirm that materials furnished for this Bid Package are compatible with other materials furnished for other Bid Packages.

Section B: Project Specific Requirements:

Section C: Project-Specific Exclusions:

Section D: Project Alternates

Section E: Unit Pricing:
1. Provide labor rates

END OF BID PACKAGE
07.5 Applied Fireproofing (unit pricing)

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 1 – General Requirements
- Section 078100 – Applied Fireproofing

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade-Specific Requirements
1. Examine substrates to receive spray applied fireproofing and report unsatisfactory conditions to the Project Superintendent. Start of installation will be construed as acceptance of substrate.
2. 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.
3. Protect adjacent surfaces and finishes from fallout or overspray. Remove fireproofing fallout and overspray that is allowed to coat adjacent surfaces.
4. Provide and apply spray-applied fireproofing and auxiliary fire-resistive materials to all structural steel framing, steel joisting, and steel floor and roof deck as indicated and specified for this project.
5. Provide auxiliary fire-resistive materials that are compatible with the spray-applied fireproofing.
6. Provide and apply spray-applied fireproofing system that meets Fire-Test-Response Characteristics as established by authorities having jurisdiction.
7. Provide materials that are free of asbestos fibers.
8. Provide all field testing and certifications required by the specifications.
9. Touch up fireproofing as required and necessary for complete protection.
10. Warranties commence on Substantial Completion of the project, not upon completion of this scope.

Section B: Project Specific Requirements:

Section C: Project-Specific Exclusions:

Section D: Project Alternates:

Section E: Unit Pricing:
1. Provide unit price for patching of existing fireproofing.
2. Provide Labor Rates

END OF BID PACKAGE
08.0 Doors, Frames & Hardware (Supply & Install)

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 1 – General Requirements
- Section 081113 – Hollow Metal Doors and Frames
- Section 087100 – Door Hardware

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade-Specific Requirements

Supply:

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.
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.

Install:

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.

Section B: Project Specific Requirements:

1. Include supply and installation of new doors, frames and hardware

Section C: Project-Specific Exclusions:

1. Salvage and reinstall of existing door frames, leaf and hardware is by others
2. Exclude Hardware for Aluminum Doors.

Section D: Project Alternates:

Section E: Unit Pricing:

1. Provide Labor Rates

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 1 – General Requirements
- Section 054000 – Cold-Formed Metal Framing
- Section 061000 – Rough Carpentry
- Section 061600 – Exterior Sheathing
- Section 072100 – Thermal Insulation
- Section 078443 – Joint Firestopping
- Section 079200 – Joint Sealants
- Section 092216 – Non-structural metal framing
- Section 092900 – Gypsum Board
- Section 095113 – Acoustical Panel Ceilings

*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 pre-engineered metal building contractor all miscellaneous steel installations that are integral with light gauge framing systems. 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. Include taping and finishing of drywall surfaces.
8. Provide UL listed fire rated assemblies as shown.
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. Furnish only weather barrier material at brick ties.
11. Furnish and install weather barrier system on exterior sheathing. Including window flashing per manufacturer’s recommendations.
12. Inspect all penetrations through the weather barriers system for proper sealing and bring all non-conforming penetrations to the attention of the superintendent.
13. Provide expansion joints in walls and ceiling joint systems as shown.
14. Furnish and install FRP and accessories where required.
15. Furnish and install all batt, blanket type and acoustical insulation per construction documents.
16. Insulate at steel beams where shown on construction documents.
17. Furnish and install board insulation (except where installed by concrete and masonry bid packages).
18. 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.
19. Maintain true and level ceilings at heights indicated in the construction documents.
20. Coordinate installation of sprinkler heads, light fixtures, speakers, HVAC devices, access doors, and other appurtenances in ceilings.
21. Acoustical sound panels to be provided and installed per construction documents.
22. 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.
23. Provide tackable wall surface.
24. Set and install new hollow metal frames (provided by others) in metal framing systems.

**Section B: Project Specific Requirements:**

1. Include installation and removal of temporary construction barrier wall (T1) as indicated on drawings.
2. All work to take place from exterior scaffold. Interior access will be from exterior scaffold
3. Include joint firestopping
4. Include skim and prep to a level 5 finish areas of striped wallpaper
5. Include all new acoustical ceilings

**Section C: Project-Specific Exclusions:**

1. Penetration Firestopping by MEP/FP package
2. Salvaged hollow metal frames will be installed by Finish Carpentry package
3. Removal and reinstall installation of acoustical ceilings is by Finish carpentry package
4. Exclude infectious control measures

**Section D: Project Alternates:**

Construction Manager’s Manual – MU Women’s & Children’s Hospital- Exterior Envelope Replacement
1. Include the construction barrier wall (T1) in your base bid. Provide voluntary deduct for this item on the bid form.
2. Include patching existing drywall in your Base Bid. Provide voluntary deduct for this item on the bid form.

Section E: Unit Pricing:

1. Provide unit pricing for installation of new acoustical ceiling
2. Provide a unit price for replacement of existing exterior metal studs.
3. Provide Labor Rates

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 1 – General Requirements
- Section 093013 – Wall and Floor Tiling
- Section 096516 – Resilient Sheet Flooring, Base and Accessories
- Section 096519 – Resilient Tile Flooring
- Section 096813 – Tile Carpeting

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. Furnish and install porcelain, ceramic, quarry, stone and marble tile.
9. Furnish and install elevator cab flooring. Furnish and install all expansion and construction joints including keyways, dowels and saw cutting as required.
10. Provide and install pre-formed cove base outside corners.
11. Furnish and install thin brick pavers.
12. Provide and install all floor-to-floor expansion joint covers as required.
13. Include waterproofing at showers or shower pans.
14. Provide initial cleaning of resilient materials, carpet, and tile upon completion of installation in strict accordance with the manufacturer’s recommendations.
15. Remove visible adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet manufacturer. Remove protruding yarns from carpet surface.
16. Protect flooring against mars, marks, indentations, and other damage from construction. Use protection methods indicated or recommended by tile manufacturer.
17. Provide “extra stock” materials as identified in the construction documents.

Section B: Project Specific Requirements:

1. Include demo and put back of flooring and base
2. Include put back of wall tile

Section C: Project-Specific Exclusions:

Section D: Project Alternates:

Section E: Unit Pricing:

1. Provide labor rates
2. Provide unit pricing for demo and put back of each type of flooring
3. Provide unit pricing for patching wall tile
4. Provide unit price for floor leveling

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 1 – General Requirements
- Section 079200 – Joint Sealants
- Section 097200 – Wall Coverings
- Section 099113 – Exterior Painting
- Section 099123 – Interior Painting

*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 beauty caulking as needed.
11. Furnish and install wall fabrics and cork wall coverings.
12. Include painted graphics.
13. 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.
Section B: Project Specific Requirements:

1. Include salvage and reinstallation of existing wall graphics
2. Include all wall coverings and wallpaper as indicated on drawings
3. All trim and caulking at wall coverings

Section C: Project-Specific Exclusions:

Section D: Project Alternates:

1. Provide pricing for alternate #2 Re-Paint Existing Exterior Metal Panels

Section E: Unit Pricing:

1. Provide Labor Rates
2. Provide unit pricing for touch up paint

END OF BID PACKAGE
10.1 Building Specialties (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 1 – General Requirements
- Section 102600 – Wall Protection
- Section 102800 – Toilet and Bath Accessories

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade-Specific Requirements
1. Supply all material, equipment, and associated hardware to provide a complete installation of wall protection, end wall guards, corner guards, crash rails.
2. Supply all toilet, bath and laundry accessories and hardware as indicated and specified.
3. Supply all fire extinguisher cabinets as indicated and specified.
4. Supply all material and associated hardware to provide a complete installation for all sections of this package.
5. For all products use specified manufacturer unless otherwise noted.
6. All accessories shall meet the performance specifications in the construction documents.
7. All material will be handled, inventoried and protected by Construction Manager. Construction Manager will provide a secure lockup for storage.
8. All warranties shall commence on the date of Substantial Completion of the Project.

Section B: Project Specific Requirements:
1. Exclude items noted as owner furnished

Section C: Project-Specific Exclusions:

Section D: Project Alternates:
1.

Section E: Unit Pricing:

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 1 – General Requirements
- Section 122413 – Roller Window Shades

*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.

**Section B: Project Specific Requirements:**
1. Supply and install all new window treatments

**Section C: Project-Specific Exclusions:**

**Section D: Project Alternates:**

**Section E: Unit Pricing:**
2. Provide Labor Rates

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 1 – General Requirements
- Section 078413 – Penetration Firestopping
- Division 21 in its entirety

*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.

**Section B: Project Specific Requirements:**
1. Include all Fire Suppression demolition, salvage and reinstallation.
2. Include all drain and testing, monitor and fire watch.

**Section C: Project-Specific Exclusions:**

**Section D: Project Alternates:**
Section E: Unit Pricing:

1. Provide unit pricing for reconfiguring sprinkler heads
2. Provide Labor Rates
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 1 – General Requirements
- Section 078413 – Penetration Firestopping
- Division 22 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. Include temporary water supply.
4. Include water and sewer connections to the job trailer as required.
5. Plumbing contractor is to lay out all lines and elevations associated with this scope of work.
6. 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.
7. Furnish all pipe bedding, cushion materials and thrust blocks per construction documents.
8. Provide gradation plan if required. Check all sewer line gradations with existing utilities prior to installation to ensure the required flow is achieved.
9. Upon completion of plumbing contactor’s underground work, plumbing contractor is responsible to regrade 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.
10. Dewater excavations associated with this trade as required to preserve structural integrity and workability.
11. Include removal and replacement of concrete and masonry as required to tie into existing services and utilities.
12. Verify locations of services prior to submitting a bid proposal.
13. 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.
14. Furnish and install complete plumbing system per construction documents.
15. Include complete sanitary sewer system.
16. Include gas piping required per plans and specs.
17. Furnish and install all domestic water piping required to complete this scope of work.
18. Include any utility company fees, impact costs, metering or vault costs; include penetration sleeves, saw cutting, and coring required for this scope of work.
19. Furnish on-site storage as required by the construction manager for the storage of fixtures and equipment.
20. Include a plumbing representative to be on site during slab pours to ensure plumbing lines remain in place.
21. Include all hoisting and scaffolding as required.
22. Furnish and install all plumbing fixtures including but not limited to urinals, urinal carriers, toilets, sinks and drinking fountains.
23. Include shower and bath units including shower pans as required.
24. Include backflow preventers and tests.
25. Tie new sanitary sewer lines in the existing sanitary sewer system per construction documents.
26. 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.
27. Include all associated blocking, anchors, stenciling and tagging for this scope of work.
28. 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.
29. Coordinate with other trades to locate sleeves and to ensure plumbing does not interfere with any other items.
30. Include all plumbing identification including color coding, stencil, labels tags, etc. per construction documents.
31. Include cutting, coring and patching required for plumbing installations.
32. Supply any access doors (24” x 24” min.) needed for access to plumbing equipment.
33. Install flashing or sealant at each exterior weather barrier penetration per weather barrier manufacturer’s recommendation.
34. Include all final connections to Owner-furnished equipment.
35. 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.
36. Furnish and install all appliance related plumbing as required.
37. Supply roof drains to be installed by roofing contractor. Include roof drain piping and connection to roof drains.
38. Furnish and install solid and/or grease interceptors per construction documents.
39. Include fire-stopping for penetrations created by this scope of work.
40. Include sealants (color selected by Architect) around all plumbing fixtures, sinks and lavatories.
41. 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.
42. Include cleaning, purging and flushing of all lines when complete as related to this scope of work.
43. Ensure all equipment has adequate maintenance access when in place.
44. Clean up waste and debris generated by this scope of work and dispose on a daily basis and as directed by the construction manager.
45. Include documented instructional training to the owner’s representative regarding the operation and maintenance of the plumbing systems.
46. All warranties for fixtures, devices, and equipment begin at date of Substantial Completion of Project.
Section B: Project Specific Requirements:

1. Include all plumbing demolition, salvage and reinstallation.
2. Include all applicable testing and certification for plumbing, including med gas.
3. All interior work beyond the construction barriers to occur outside of normal working hours.

Section C: Project-Specific Exclusions:

Section D: Project Alternates:

Section E: Unit Pricing:

1. Provide unit pricing for removal and reinstall of plumbing fixtures
2. Provide Labor Rates

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 1 – General Requirements
- Section 078413 – Penetration Firestopping
- Division 23 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, heating and cooling 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. Coordinate with food service or laboratory contractor for tie-in locations of mechanical items relating to their equipment.
24. Include all final connections to Owner-furnished equipment.
25. HVAC contractor shall provide the kitchen hood fire suppression system per plans and specifications.
26. Include testing, adjusting and balancing per contract documents.
27. Include Commissioning per construction documents as required.
28. Include documented instructional training to the owner’s representative regarding the operation and maintenance of the plumbing systems.
29. All warranties for fixtures, devices, and equipment begin at date of Substantial Completion of Project.
30. Include warranty per construction documents on all equipment regardless if used temporarily during construction for climatization.

Section B: Project Specific Requirements:

1. Include all HVAC demolition, salvage and reinstallation.
2. Include all applicable testing and certification for HVAC, including hydronic and steam piping

Section C: Project-Specific Exclusions:

Section D: Project Alternates:

1. Include temporary protection and insulation of existing ductwork and HVAC piping in your base bid. Breakout your price as a voluntary deduct.

Section E: Unit Pricing:

1. Provide unit pricing for removal and reinstall of diffuser/grille
2. Provide unit pricing for remove and replacement of ductwork
3. Provide Labor Rates

END OF BID PACKAGE

Construction Manager’s Manual – MU Women’s & Children’s Hospital- Exterior Envelope Replacement
26.1 Electrical, Communication 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 1 – General Requirements
- Section 078413 – Penetration Firestopping
- Division 26 in its entirety
- Division 27 in its entirety
- Division 28 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. Provide all raceway, wire, termination, poles, light fixtures, and grounding for site lighting. Concrete pole bases will be provided by others.

17. In the case of difference between drawings, specification, codes local & state laws, ordinances or contract documents, the most stringent governs.

18. All warranties for fixtures, devices, equipment and gear begin at the date of the Project’s Substantial Completion.

Section B: Project Specific Requirements:

1. Provide all Division 27 Communication systems.
3. Furnish and install two (2) minimum support wires from building structure to each electrical recessed fixture located in tee bar grid system.
4. Include all electrical demolition, salvage and reinstallation.
5. Include remove and reinstall of existing roof antennas

Section C: Project-Specific Exclusions:

Section D: Project Alternates:

1. Pricing for Alternate #1 Exterior LED Lighting
2. Pricing for Alternate #2 Lighting Protection

Section E: Unit Pricing:

1. Provide unit pricing for removal and reinstall of electrical devices
2. Provide unit pricing for removal and reinstall of interior lay-in fixtures
3. Provide Labor Rates

END OF BID PACKAGE
55.0 Scaffolding

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 1 – General Requirements

All General Scope Requirements as outlined in Section 3.01.

Section B: Project Specific Requirements:

SCAFFOLDING SCOPE OF WORK
1. Furnish, erect, and dismantle engineered scaffolding access to the Hospital Building for the new building envelope project per the DH Glabe & Associate design drawings.
2. The scaffolding will need to be provided in multiple phases on this project, see project schedule in section 4.00. Include enough material for two phases. Two phases will be erected at a time.
3. The scaffolding needs to have work platform levels on ledger & side brackets at a minimum of 6’-6” intervals in height.
4. The work platforms to have complete decking with toe boards and hand-guard railing on all open sides.
5. Stairway units need to be provided to access the work platform.
6. Pedestrian Protection Canopy required to facilitate the scaffold installation and removal are the responsibility of the Scaffold Contractor.
7. The scaffolding systems will need to be anchored into the building. The Engineer will provide design criteria but means and methods are the responsibility of the scaffold contractor and need to be reviewed and approved by Nabholz and the Scaffold Engineer.
8. The scaffolding will be built off a steel beam cribbing system will be design by Scaffold Engineer.

SHORING SERVICES
9. Furnish, erect, and dismantle engineered shoring systems for the supporting of the existing building roofs. This shoring will be within the Hospital Area and needs to ensure compliance with Best Practices for Health Care Construction.

10. All interior work beyond the to occur outside of normal working hours.

Construction Manager’s Manual – MU Women’s & Children’s Hospital- Exterior Envelope Replacement
ENGINEERING

11. Nabholz will provide the Engineering and the Scaffold Design Drawings for the scaffolding, steel beam cribbing and shoring design. All changes or modifications based on field-site conditions is the responsibility of the Scaffolding Contractor.
12. The scaffolding system must meet or exceed all local, federal and OSHA Standards.

ENCLOSURE

13. Scaffolding needs to be enclosed using Eagle Industries, Inc Scaf-Lite Scaffold Sheeting (12 ml) or equivalent similar. Enclosure to be on all sides and top of the scaffold systems. The roof needs to be brought back to the exiting building and counterweight. The roof system needs to be designed for removal for movement of the new wall panels.

Section C: Project-Specific Exclusions:

1. Exclude infectious control measures

Section D: Project Alternates:

Section E: Unit Pricing:

1. Provide Labor rates.

END OF BID PACKAGE
4.00 SCHEDULE
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**Diagram:**

- Design Package 1 Bid Process
- Design Package 2 CD Development
- Descope and CM Recommendations
- Design Package 2 CD Review and Approval
- Concurrent EIE Project
- Design Package 2 Bid Process
- Wall Panel Lead Time
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- Final GMP Review and Approval
- Onsite Mobilization and Hospital Move-out
- Interior Finishes and Owner Move
- Phase 2 Skin
- Phase 3 Skin
- Phase 4 Skin
- Phase 5 Skin
- Phase 6 Skin
- Replace Roofs Q & S
- Replace Roofs A, F, H & I
- Interior Finishes and Owner Move
- Phase 7 Skin
- Phase 8 Skin
- Phase 9 Skin
- Phase 10 Skin
- Replace Roofs B, C, D, E, G, K & L
- Interior Finishes and Owner Move
- Substantial Completion (Skin & Interiors)
- Replace Roof P

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**Construction Schedule**

Mon 7/15/19
.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

   Policy shall contain no less than the following:
   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:

   Construction Manager’s Manual – MU Women’s & Children’s Hospital- Exterior Envelope Replacement
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.

.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