



**ACADEMIC COMPLEX
RENOVATIONS
SCO ID# 13-11117-01A**

**ADDENDUM #1
SEPTEMBER 22, 2015**

University of North Carolina at Charlotte Academic Complex Renovation

ADDENDUM #1

September 22, 2016

To: ALL BIDDERS OF RECORD:

This addendum forms a part of the Contract Documents and modifies the original Project Drawings, and Project Manual dated September 7, 2016. Acknowledgement of receipt of this Addendum in the space provided on the Bid Form is mandatory. Failure to do so may subject the Bidder to disqualification. All bidders need to make sure that this entire addendum is thoroughly reviewed.

General Information Reminder:

1. The last date for questions to be address via addendum is **October 4, 2016**.
2. There will be a second building walkthrough for all subs that are interested in visiting the site. This walkthrough will take place on **Thursday, September 29, 2016 at 2:30 p.m.** Visitor parking will be at the same location as the first pre-bid meeting, the Cone Deck - <http://maps.uncc.edu> All attendees should meet me at the top level of Cone Deck 2, prior to walking to the project.

Project Bid Manual

Please Review the Bid Manual in its entirety as applicable to the Scopes of Work

Attachments

1. Project Bid Manual. 284 pages.
2. Pre-bid Meeting Presentation dated September 20, 2016. 30 pages
3. Pre-bid Meeting sign In Sheets, 4 pages.
4. Pre-bid meeting minutes, 3 pages.
5. 042000 Unit Masonry Addendum #1, 5 pages.
6. 012300 Alternates Addendum #1, 5 pages.

End of Addendum #1



UNCC ACADEMIC COMPLEX RENOVATIONS

9201 University City Blvd,

Charlotte, NC 28223

Construction Manager at Risk Bid Manual

September 21, 2016





UNC CHARLOTTE

**ACADEMIC COMPLEX
RENOVATIONS
BID MANUAL**



**BARNHILL
CONTRACTING
COMPANY**

Barnhill Contracting Project # 191016
SCO ID # 13-11117-01A

Bid Manual Table of Contents

Section 1 – General Information

Advertisement for Prequalification's
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Contract Document Log

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Identification of Minority Business Participation
Affidavit A – Listing of the good faith effort
Affidavit B—Intent to perform contract with own workforce
Affidavit C—Portion of the work to performed by minority firms
Affidavit D—Good faith efforts MBE Documents for Contract Payments
UNC Charlotte GFE Requirements

Section Three—Bid Packages

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Scopes of Work

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BP-02C Unit Pavers
BP-02E Landscaping
BP-02F Soil Stabilization
BP-02K Abatement & Demolition
BP-04A Turnkey Masonry
BP-05B Misc. Steel
BP-07A Caulking & Waterproofing
BP-08A Glazing & Windows
BP-08B Turnkey Doors, Frames, and Hardware
BP-09A Metal Studs & Drywall
BP-09B Acoustical Ceilings
BP-09C Metal Studs & Drywall & ACT Ceilings
BP-09D Ceramic Tile
BP-09E Resilient, Carpet and Base
BP-09F Painting
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Bid Package Schedule Narrative

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UNC-Charlotte Academic Complex Project Safety Plan

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Form of Payment and Performance Bond

Form of Non-Collusion and Contract Affidavit

Barnhill Standard Subcontract Agreement

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BP-02C Unit Pavers
BP-02E Landscaping
BP-02F Soil Stabilization
BP-02K Abatement & Demolition
BP-04A Turnkey Masonry
BP-05B Misc. Steel
BP-07A Caulking & Waterproofing
BP-08A Glazing & Windows
BP-08B Turnkey Doors, Frames, and Hardware
BP-09A Metal Studs & Drywall
BP-09B Acoustical Ceilings
BP-09C Metal Studs & Drywall & ACT Ceilings
BP-09D Ceramic Tile
BP-09E Resilient, Carpet and Base
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Form of Non-Collusion and Contract Affidavit

E-Verify Affidavit

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Section One

General Information

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**ADVERTISEMENT FOR PRE-QUALIFICATION****UNC-Charlotte Academic Complex Renovation Project**

Barnhill Contracting Company has been selected as the Construction Manager @ Risk by the University of North Carolina at Charlotte and is seeking to pre-qualify construction trade and specialty contractors to submit bids for furnishing labor, materials, equipment and tools for the Academic Complex Renovation project in Charlotte, NC.

BP-01A General Trades
BP-02A Turnkey Sitework (Combo 02B + 02C + 02D)
BP-02B Concrete Paving
BP-02C Unit Pavers
BP-02D Site Utilities
BP-02E Landscaping
BP-02F Soil Stabilization (Chemical Grout)
BP-02K Abatement & Demolition
BP-03A Turnkey Concrete (Combo 03B + 03C + 03D)
BP-03B Concrete Flatwork – Place & Finish
BP-03C Concrete Ready Mix Materials
BP-03D Concrete Reinforcement Materials
BP-04A Turnkey Masonry
BP-05B Misc. Steel
BP07A Caulking & Waterproofing
BP-08A Glazing & Windows
BP-08B Turnkey Doors, Frames, and Hardware
BP-09A Metal Studs & Drywall
BP-09B Acoustical Ceilings
BP-09C Metal Studs & Drywall & ACT Ceilings (Combo 09A + 09B)
BP-09D Ceramic Tile
BP-09E Resilient, Carpet, and Base
BP-09F Painting
BP-10A Specialties & Toilet Accessories
BP-10S Identifying Devices
BP-12B Window Treatments
BP-12C Fixed Audience Seating
BP-15A Fire Sprinkler
BP-15C Plumbing Systems
BP-15D HVAC Systems & Controls
BP-15E HVAC Testing & Balancing
BP-16A Electrical & Fire Alarm

Additional Packages may be added and/or deleted at the discretion of the Construction Manager. Historically underutilized business participation is highly encouraged. If a MWBE firm requests assistance with cash flow needs, Barnhill Contracting will work with that Subcontractor, or Vendor, to arrange payment on a biweekly basis through a joint check arrangement.

Interested contractors should submit their completed prequalification submittals, by August 22, 2016, to Holly Faison at Barnhill Contracting Company PO Box 31765 Raleigh, NC 27622 (4325 Pleasant Valley Road, NC 27612).

PREQUALIFICATION FORMS CAN BE OBTAINED from our online plan room by visiting our website, www.barnhillcontracting.com, and clicking on the UNC Charlotte project under Public Jobs or by contacting Holly Faison at hfaison@barnhillcontracting.com or call 919-781-7210.

Please note: Plans will not be issued to any contractor until prequalification form is submitted and approved by Barnhill Contracting Company. Target bid date: October 2016.

Bid / Payment and performance Bonds will not be required for Bid Packages less than \$500,000.00, except for building envelope bid packages. If submitting on multiple trade packages and the aggregate of the packages meets or exceeds \$500,000.00 a Bid, Payment and Performance bond will be required for each trade package.

NOTICE TO BIDDERS

Barnhill Contracting Company, Construction manager at Risk, will accept bids for UNC Charlotte, Academic Complex Renovation project from Pre-Qualified 1st Tier Trade Contractors.

Sealed proposals will be received in Salons A & B on the 3rd floor of the Barnhardt Student Activity Center (building #46 on the campus map) - <http://maps.uncc.edu> - visitor parking available in Cone Deck 2 on the University of North Carolina at Charlotte Campus, Charlotte, North Carolina up to 2:30 p.m. Tuesday, October 18, 2016, and immediately thereafter publicly opened and read for the furnishing of labor, material and equipment entering into the construction of:

University of North Carolina at Charlotte Academic Complex Renovation

Bids will be received for Prequalified 1st Tier Trade Contractors for the following bid packages. All proposals shall be lump sum.

BP01A General Trades; BP02C Unit Pavers; BP02E Landscaping; BP02F Soil Stabilization; BP02K Abatement and Demolition; BP04A Turnkey Masonry; BP05B Misc. Steel; BP07A Caulking and Waterproofing; BP08A Glazing and Windows; BP08B Turnkey Doors, Frames and Hardware; BP09A Metal Studs and Drywall; BP09B Acoustical Ceilings; BP09C Metal Studs, Drywall, ACT Ceilings (Combo 09A+09B); BP09D Ceramic Tile; BP09E Resilient, Carpet, and Base; BP09F Painting; BP10A Specialties and Toilet Accessories; BP10S Identifying Devices; BP12B Window Treatment; BP12C Fixed Audience Seating; BP15A Fire Sprinkler; BP15C Plumbing Systems; BP15D HVAC Systems; BP15E HVAC Testing and Balancing; BP16A Electrical Systems.

There will be a separate Turnkey Concrete Package BP-03A prequalified for and bid at a later date.

Pre-Bid Meeting

An open pre-bid meeting will be held for all interested bidders on Tuesday, September 20, 2016, at 2:30 p.m. The meeting will address project specific questions, issues, bidding procedures and bid forms. The meeting will be held at Cone University Center (building #5 on the campus map), room 210. Visitor parking is available in the Cone Deck. At the conclusion of the meeting, a site tour will be conducted for the purpose of viewing all existing conditions. All bidders who intend to submit a bid are strongly encouraged to attend the pre-bid meeting and participate in the site tour. Failure to participate in the site tour will not be grounds for additional compensation later in the project. Meeting minutes and a pre-bid sign in sheet will be distributed as part of addendum #1.

The meeting is also to identify preferred brand alternates and their performance standards that the owner will consider for approval on this project.

On Tuesday, September 20, 2016 at 2:30 p.m., the University of North Carolina at Charlotte would like to hereby serve public notice of formal notification of the preferred brand alternates.

Any and all persons shall use this time to state concerns or reservation of any preferred alternates. In accordance with GS133-3 and SCO procedures the following preferred brand items are being considered as Alternates by the owner for this project:

Carpet - Provide basis of design carpet as noted in section 09 68 13 Tile Carpeting, and Finish Schedule.

Exterior Face - Face Brick to be Morrocroft Special #02-79-1 manufactured by Hanson Brick at www.hansonbrick.com (one available source in Charlotte is Brick Yard Limited). Installation shall comply with UNCC Std. Spec S02525.

Justification of any approvals will be made available to the public in writing no later than seven (7) days prior to bid date.

Complete plans, specifications and contract documents will be open for inspection at:

1. **Construction Manager at Risk – Barnhill Contracting Company, 5701 Westpark Drive, Suite 205, Charlotte, NC 28217, Phone: (704) 579-6070.**
2. **Designer – Woolpert, 11301 Carmel Commons Blvd., Suite 300, Charlotte, NC 28226, Phone: (704) 525-6284.**
3. **Owner – UNC Charlotte, Facilities Management/Police Building, 2nd floor – Capital Projects, 9151 Cameron Blvd, Charlotte, NC 28223, Phone: (704) 687-0615**
4. **Metrolina Minority Contractors Association (MMCA), 2848 Queen City Drive, Suite B, Charlotte, NC 28208, Phone: (877) 526-6205, mmca@mmcaofcharlotte.org**

Digital copies of the Plans, Specifications, and Contract Documents are available at the following;

1. **Minority Contractors Resource Center, 2915 Rozelles Ferry Road, Charlotte, NC 28208. Ph. 704-332-5746**
2. **Associated General Contractors (AGC) Carolinas Branch and the Hispanic Contractors Association of the Carolinas (HCAC) – (800) 364-2059 or sales@isgft.com**
3. **North Carolina Offices of Dodge Data & Analytics – (800) 393-6343 <http://dodgeprojects.construction.com/>**
4. **Construction Market Data – (800) 424-3996**

or may be downloaded from the Barnhill Contracting plan room. Prequalified Bidders will be forwarded the direct link to the online plan room. Please contact Reiland Funderburk with Barnhill Contracting Company if you need any assistance accessing the online plan room.

If a contractor is bidding under the dual system both as a single prime contractor and as a separate prime contractor, he must submit the bids on separate forms and in separate envelopes. Bidders should clearly indicate on the outside of the bid envelope which contract(s) they are bidding.

NOTE: The bidder shall include with the bid proposal the form *Identification of Minority Business Participation* identifying the minority business participation it will use on the project and shall include either *Affidavit A* or *Affidavit B* as applicable. Forms and instructions are

included within the Proposal Form in the bid documents. Failure to complete these forms is grounds for rejection of the bid. (GS143-128.2c Effective 1/1/2002.)

All contractors are hereby notified that they must have proper license as required under the state laws governing their respective trades.

General contractors are notified that Chapter 87, Article 1, General Statutes of North Carolina, will be observed in receiving and awarding general contracts. General contractors submitting bids on this project must have license classification for Buildings.

NOTE--SINGLE PRIME CONTRACTS: Under GS 87-1, a contractor that superintends or manages construction of any building, highway, public utility, grading, structure or improvement shall be deemed a "general contractor" and shall be so licensed. Therefore a single prime project that involves other trades will require the single prime contractor to hold a proper General Contractors license.

Unless otherwise noted, each proposal shall be accompanied by a cash deposit or a certified check drawn on some bank or trust company, insured by the Federal Deposit Insurance Corporation, of an amount equal to not less than five percent (5%) of the proposal, or in lieu thereof a bidder may offer a bid bond of five percent (5%) of the bid executed by a surety company licensed under the laws of North Carolina to execute the contract in accordance with the bid bond. Said deposit shall be retained by the owner as liquidated damages in event of failure of the successful bidder to execute the contract within ten days after the award or to give satisfactory surety as required by law.

Bid, Payment and Performance bonds are waived for trade packages under \$500,000 with the exception of the building envelope Trade Packages. If submitting on multiple trade packages and the aggregate of the packages meets or exceeds \$500,000, a Bid, Payment and

Performance bond will be required for each trade package

Payment will be made based on ninety-five percent (95%) of monthly estimates and final payment made upon completion and acceptance of work.

No bid may be withdrawn after the scheduled closing time for the receipt of bids for a period of 30 days.

The owner reserves the right to reject any or all bids and to waive informalities.

Please direct all bid questions to Barnhill Contracting for further collaboration with the design team. All bid questions and clarifications must be submitted to Barnhill Contracting by October 4, 2016. Questions and clarifications received after October 4, 2016 will not be acknowledged.

Barnhill Contracting Company
5701 Westpark Drive, Suite 205, Charlotte, NC 28217
Bid questions shall be directed to Reiland Funderburk

Email: rfunderburk@barnhillcontracting.com

Bidders who will not attend the Bid Opening need to ensure their sealed bids are delivered no later than 1:30 p.m. October 18, 2016 to the following:

Mailed Bids:

Attn: Ms. Joyce Clay
The University of North Carolina at Charlotte
Facilities Management – Capital Project
9201 University City Boulevard
Charlotte, NC 28223-0001

Or

Hand Delivered:

Attn: Ms. Joyce Clay – 2nd Floor Capital Projects
Facilities Management/Campus Police Building (#55 on the campus map)
9151 Cameron Boulevard
Charlotte, NC 28223
(704) 687-0615

Designer:

Woolpert

11301 Carmel Commons Blvd., Suite 300

Charlotte, NC 28226

704-525-6284

Owner:

University of North Carolina at Charlotte

9201 University City Boulevard

Charlotte, NC 28223

704-687-6822

Project Name:	University of North Carolina at Charlotte Academic Complex Renovation	SCO Project ID#13-11117-01A
Location:	9201 University City Blvd Charlotte, NC 28223	
Owner:	Address: University of North Carolina, Charlotte Charlotte, NC 28223 Owner's Representative: Brian Kugler Email: bkugler@unc.edu Senior Proj Manager-Facilities Manager Phone: 704-293-1025 Jennifer Price Email: Jennifer.price@unc.edu Construction Manager Phone: 704-687-0522 University of North Carolina at Charlotte 9201 University City Blvd Charlotte, NC 28223	
Construction Manager:	Barnhill Contracting Company Project Manager: Reiland Funderburk Email: rfunderburk@barnhillcontracting.com Barnhill Contracting Company Phone: 704-579-6070 - o 5701 Westpark Dr Fax: 704-523-2039 Charlotte Nc 28217 Project Engineer: Jordan Schwartz Email: jschwartz@barnhillcontracting.com 5701 Westpark Dr Phone: 704-579-5222 Charlotte Nc 28217 Senior Proj. Manager John Smith Email: jsmith@barnhillcontracting.com 5701 Westpark Dr, Charlotte, NC 28217 252-824-8256	
Architect:	Woolpert Email: qea-dc@quinnevans.com 11301 Carmel Commons Blvd. Suite 300 Phone: 202-298-6700 Charlotte, NC 28226 Fax: 202-298-6666 Project Responsible Staff: Brian Brader, RA Email: brian.brader@woolpert.com Phone: _____ David Welling, AIA, LEED AP Email: david.welling@woolpert.com Phone: _____	
MEP Engineer:	OPTIMA ENGINEERING 1927 South Tryon Street, Suite 300 Phone: 704-338-1292 Charlotte, NC 28203 Fax: 704-338-9974 Ronald V. Almond, P.E., LEED AP Email: ralmond@optimape.com Mobile: _____	
Structural & Civil Engineer:	SKA CONSULTING ENGINEERS, INC. 4651 Charlotte Park Drive, Suite 150 Phone: 704.424.9663 CHARLOTTE, NC 28217 Fax: 704.424.9665 Civil Project Manager Chuck Cardwell, PE, LEED AP Email: ccardwell@skaeng.com Mobile: _____ Struct.Project Manager Email: _____ Mobile: _____	

INSTRUCTIONS TO BIDDERS

ARTICLE 1. DEFINITIONS

- 1.1 All definitions set forth in the General Conditions, and Special Conditions & Temporary Facilities apply to these Instructions to Bidders.
- 1.2 The Contract Documents shall also serve as the bidding documents.
- 1.3 An "Alternate Bid" or "Alternate" is an amount stated in the proposal to be added to or deducted from the amount of the base bid if the corresponding change in the Work, as described in the Contract Documents, is accepted.

ARTICLE 2. BIDDERS' REPRESENTATIONS

- 2.1 It is understood and mutually agreed that by submitting a bid the bidder acknowledges that he has carefully examined all documents pertaining to the work and has visited the site to become familiar with, the location, accessibility and general character of the site of the work and all existing buildings and structures within and adjacent to the site, and has satisfied himself as to the nature of the work, the condition of existing buildings and structures, the conformation of the ground, the character, quality and quantity of the material to be encountered, the character of the equipment, machinery, plant and any other facilities needed preliminary to and during prosecution of the work, the general and local conditions, laws, ordinances, codes, rules and regulations, the construction hazards, and all other matters, including, but not limited to, the labor situation which can in any way affect the work under the contract, and including all safety measures required by the Occupational Safety and Health Act of 1970 and all rules and regulation issued pursuant thereto. Further, that the bidder has studied and carefully correlated its observation with the Contract Documents in preparing the pricing.
- 2.2 Reference is made to Contract Documents for the identification of those surveys and investigation reports of subsurface or latent physical condition at the site or otherwise affecting performance of the work which have been relied upon by the designer in preparing the document. The Owner will make copies of all such surveys and reports available to the bidder through the construction manager upon request. Unless otherwise specified in the Bid Documents, borings, test excavations and other subsurface information, if any, are provided solely to share information and any use of, or reliance upon, such items by the Bidder is at the risk of the Bidder. The Bidder shall be afforded access to the Project site to obtain the Bidder's own borings, test excavations and other subsurface information upon request made to the Construction Manager.
- 2.3 Each bidder may, at his own expense, make such additional surveys and investigations as may deem necessary to determine his bid price for the performance of the work. Any on-site investigation shall be done at the convenience of the Owner. Any reasonable request for access to the site will be honored by the Owner.
- 2.4 By submitting a bid, each bidder represents that its bid is based upon the personnel, materials, systems, and equipment required by the Contract Documents without exception and that it has sufficient personnel, materials, systems, and equipment available to complete the Work as and when specified or required. The Bidder acknowledges that it has thoroughly reviewed all Bid Document information for the Project and that it is intimately familiar with such information. Bidder acknowledges that the Construction Manager is relying on the Bidder's review of all Bid Document information to be "biddable" and "buildable" and

otherwise fully adequate to account all work, labor, and materials required for the completion of the Project.

ARTICLE 3. INTERPRETATION OR CORRECTION OF THE CONTRACT DOCUMENTS

- 3.1 Should bidders find any discrepancies in, or omission from, ambiguity, inconsistency, or error, in the drawings or documents, or should bidder be in doubt as to their meaning upon examination of the Contract Documents or of the Project Site and local conditions, bidder shall at once notify the Construction Manager who will confer with the Designers and will send written instructions in the form of addenda to all bidders.
- 3.2 Bidders requiring clarification or interpretation of the Contract Documents must submit a written request therefore to the Construction Manager at least five (5) days prior to the date for receipt of bids.
- 3.3 All interpretations, corrections, or changes of the Contract Documents will be made by Addendum. Interpretations, corrections, or changes of the Contract Documents made in any other manner are not binding, and no bidder may rely upon such interpretations, corrections, or changes.
- 3.4 Any addenda to specifications issued during the time of bidding are to be considered covered in the proposal and in closing a contract they will become a part thereof. It shall be the bidder's responsibility to ascertain prior to bid time the addenda issued and to see that his bid includes any changes thereby required.
- 3.5 All addenda shall be acknowledged by the bidder(s) on the Form of Proposal.

ARTICLE 4. SUBSTITUTIONS

- 4.1 In accordance with the provisions of G.S. 133-3, material, product, or equipment substitutions proposed by the bidders to those specified herein can only be considered during the bidding phase until ten (10) days prior to the receipt of bids when submitted to the Construction Manager for review and forwarding to the Designer with sufficient data to confirm material, product, or equipment equality. Proposed substitutions submitted after this time will be considered only as potential change order.
- 4.2 Submittals for proposed substitutions shall include the following information:
 - a. Name, address and telephone number of manufacturer and supplier as appropriate.
 - b. Trade name, model or catalog designation.
 - c. Product data including performance and test data, reference standards, and technical descriptions of material, product, or equipment. Include color samples and samples of available finishes as appropriate.
 - d. Detailed comparison with specified products including performance capabilities, warranties, and test results.
 - e. Other pertinent data including data requested by the Construction Manager or Designer to confirm product equality.
- 4.3.1 If the Construction Manager and Designer approve a proposed substitution, the Construction Manager will set forth the substitution in an Addendum to all bidders of record. If such approval is provided, the Bidder shall be responsible for any and all domino impacts attributable to such substitution if incurred during the course of the project's construction duration.
- 4.3.2 A completed Substitution Request Form (attached) is required for the review of all requests for substitution.

ARTICLE 5. PREPARATION AND SUBMISSION OF BIDS

- 5.1 All bids must be prepared on the Form of Proposal provided herein and must be submitted in accordance with the Instructions to Bidders.

Any modification to the Form of Proposal (including alternates and/or unit prices or qualifications) will disqualify the bid and may cause the bid to be rejected.

- 5.2 All blank spaces for bids, alternates, and unit prices applicable to bidder's work in the Bid Form must be filled in order for the bid to be accepted. When alternates requested are not bid, the proposal may be considered incomplete. The bidder agrees that bid on Form of Proposal detached from specification will be considered and will have the same force and effect as if attached thereto. Photocopied, faxed or email proposals will not be considered. Numbers shall be stated both in writing and in figures for the base bids and alternates. All words and figures must be in ink or typed. **If a bid item has NO value or results in a NO CHANGE adjustment, then the bidder must use "\$0" in the blank. Use of a "N/C" (no change), or "NIC" (not in contract), May render the bid "non-responsive".**

- 5.3 The bidder shall fill in the Form of Proposal as follows;

- a. Each bid must give the full business address of the bidder.
- b. If the documents are executed by a sole owner, the fact shall be evidenced by the word "Owner" appearing after the name of the person executing them.
- c. If the documents are executed by a partnership, that fact shall be evidenced by the word "Co-Partner" appearing after the name of the partner executing them.
- d. If the documents are executed on the part of a corporation, they shall be executed by either the president or the vice president and attested by the secretary or assistant secretary in either case, and the title of the office of such persons shall appear after their signatures. The seal of the corporation shall be impressed on each signature page of the documents.
- e. If the proposal is made by a joint venture, each member of the joint venture in the above form shall execute it for sole owner, partnership or corporation, whichever form is applicable.
- f. **All signatures shall be properly witnessed**
- g. If a person other than an owner holds the contractor's license of a bidder, partner or officer of a firm, then the licensee shall also sign and be a party to the proposal. The title "Licensee" shall appear under his/her signature.

- 5.4 The Bidder shall price the Work to include all labor, material, equipment, supervision, administration and management (home office and field), scheduling, quality control, testing and inspection, training, transportation of manpower and materials and equipment, information technology, consumables, applicable taxes, required fees and permits, daily clean-up and daily safety, and whatever else is deemed necessary to complete the Work. Bidders must provide amounts on the Unit Price Schedule for labor, material, equipment, supervision, general conditions, overhead, fee, and preparation of performance and payment bond costs of all work items. The quantities listed in the Bid Form for unit price items are to be considered as approximate and are to be used only for the comparison of the bids and as a basis for computing amounts of security or penal sums of bonds to be furnished. Payments will only be for the actual quantities of the Work performed and accepted or materials furnished and accepted in accordance with the Contract Documents. The scheduled quantities of Work to be done and material to be furnished may each be increased, decreased, or omitted as provided in the Contract Documents.

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- 5.5 The inclusion of a Unit Price Schedule, including unit prices for labor, materials and equipment, in the bid is for informational purposes only and shall in no way obligate the Construction Manager or Owner to pay the unit rates provided in the Unit Price Schedule for any additional work performed pursuant to a modification should the bidder be awarded the Subcontract. The Construction Manager may agree to pay unit rates included in the Unit Price Schedule, or agree to pay adjusted unit rates reflecting the bidder's actual costs, after review by the Construction Manager and Owner and receipt by the bidder of written approval from the Construction Manager for the use of approved rates.
- 5.6 The completed bid shall be placed in a sealed opaque envelope so marked as to indicate: "Proposal", the identity of the Project, the respective Bid Package Number, and the name and address of the bidder. Bidders must clearly mark on the outside of the envelope which Bid Package(s) they are bidding. Bids must be received at the location as designated on the Notice to Bidders, by the specified time and date. Bids must be submitted directly to the CM @ Risk representative. If forwarded by mail or express courier, the envelope containing the proposal must be placed in another envelope which shall be sealed and addressed to. The bidder uses the mail or courier service at its own risk. Bids received after the advertised time for opening of bids will be returned to the bidder unopened.
- 5.7 Bidder shall identify in the bid form, the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit listing good faith efforts or an affidavit indicating work under contract will be self-performed, as required by G.S. 143-128.2(c) and G.S. 143-128.2(f). Failure to comply with these requirements is grounds for rejection of the bid.
- 5.8 Bids will be opened and read aloud after the specified time at the location specified in the advertisement. Bidders, their authorized agents and other interested parties are invited to be present.

ARTICLE 6. QUALIFICATION OF BIDDERS

- 6.1 Within three days (72) hours after the bid time, any bidder to whom the award of the contract might be considered must submit to the Construction Manager a properly executed State of North Carolina – Affidavit C Portion of the Work to Performed by Minority Firms, and Affidavit D – Good Faith Efforts in the form included in the Project Manual.

ARTICLE 8. FORM OF BID FORM

- 8.1 The Form of Proposal is included in the Project Manual. Specific Bid Proposal Forms will be supplied by the Construction Manager for each bid package.
- 8.2 Forms of Bonds are included in the sample contract form. Subcontracts are required to use the forms provided. Surety firm executing the bonds must be a Class "A" or better rated bonding firm as ranked by A.M. Best and be registered with the State of North Carolina department of insurance. **Any packages over \$500,000.00 must include a bid bond, and payment and performance bond. Payment and performance bonds are required for all building envelope packages. If bidding on multiple packages, and the sum of the packages meet or exceed \$500,000.00, a payment and performance bond is required for each package.**
- 8.3 The Construction Manager, at its sole discretion, may choose to include any subcontractor in a SubGuard Insurance program in lieu of requesting a Payment and Performance Bond. Subcontractors included in the program may be required to submit additional confidential financial information for review by the Construction Manager prior to enrollment in the program.
- 8.4 If the Construction Manager elects to enroll the subcontractor in the SubGuard Program the Construction Manager will deduct the full amount listed on the bid form by the Subcontractor for the Payment and Performance Bonds.

ARTICLE 9. FORM OF BID FORM

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- 9.1 The Form of Proposal is included in the Project Manual. Specific Bid Proposal Forms will be supplied by the Construction Manager for each bid package.

ARTICLE 10 AWARD OF CONTRACT

- 10.1 Subject to the right of the Construction Manager and Owner to reject any or all bids, the Construction Manager will award the Subcontract to the bidder deemed by the Construction Manager and Owner in their sole discretion to be the lowest responsive and responsible bidder. In determining which bidder is the lowest responsive and responsible, the Construction Manager Owner, in their discretion, may take into consideration not only the amount of the bid, but also such of the following criteria as it deems appropriate and may give such weight thereto as it deems appropriate:
- 10.1.1 The bidder's financial ability to complete the Subcontract successfully and on time without resort to its surety;
 - 10.1.2 The bidder's prior experience with comparable or more complex projects;
 - 10.1.3 The bidder's prior history for successful and timely completion of projects;
 - 10.1.4 The bidder's equipment and facilities;
 - 10.1.5 The adequacy, in numbers and experience, of the bidder's work force to complete the Contract successfully and on time;
 - 10.1.6 The bidder's prior experience on other projects of the CM & Owner, including the bidder's demonstrated ability to complete its work in accordance with the requirements of the contract documents;
 - 10.1.7 The bidder's compliance with federal, state, and local laws, rules, and regulations, including but not limited to equal employment, opportunity requirements and Occupational Safety and Health Act.
 - 10.1.8 The bidder's commitment to achieve the Contract HUB goals or its good-faith effort to meet those goals.
 - 10.1.9 The foregoing information with respect to each of the subcontractors which the bidder intends to use on the Project; and/or
 - 10.1.10 Depending on the type of the Work, other factors which the Construction Manager and Owner considers material.
- 10.2 In determining the lowest responsible, responsive bidder, the Construction Manager and Owner shall take into consideration the bidder's compliance with the requirements of G.S. 143-128.2(c), the past performance of the bidder on construction contracts for the Construction Manager and Owner with particular concern given to completion times, quality of work, cooperation with other contractors, and cooperation with the Designer and Owner. Failure of the low bidder to furnish affidavit and/or documentation as required by G.S. 143-128.2© may constitute a basis for disqualification of the bid.
- 10.3 The Construction Manager and Owner reserve the right to waive any informality or irregularity in bids when such waiver is in the Owner's interest.
- 10.4 At the request of the Construction Manager and before any contract is awarded, the bidder may be required to submit a list of any and all subcontractors it proposes to use on the Project. If and when the bidder submits this list, the bidder is required to use the subcontractor(s) identified on this list to perform the Work unless otherwise approved in writing by the Construction Manager and Owner. The Owner reserves the

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- right to reject any or all of the proposed subcontractors(s) for any portion of the bidder's work, consistent with G.S. 143-128. 1 (c), provide that the Construction Manager and bidder are compensated for any additional cost incurred.
- 10.5 At the request of the Construction Manager and before any contract is awarded, the bidder may be required to furnish a complete statement of the origin, composition, and manufacturer of any or all materials to be used in the construction of the Work, together with samples. Such samples may be subjected to the tests provided for in the Contract Documents to determine their quality and fitness for the Work.
- 10.6 At the request of the Construction Manager and before any contract is awarded, the bidder may be required to furnish the Construction Manager with a complete breakdown of the lump sum bid items to the satisfaction of the Construction Manager and Owner. The lump sum breakdown shall be in such detail as the Construction Manager and Owner may reasonably require.
- 10.7 The Construction Manager and Owner reserves the right to issue subcontracts to the selected bidder at any time up to sixty (60) days after the receipt of bids. The bidder must sign and return the Agreement within ten (10) days of receiving it. Failure to do so will be considered as refusal on the part of the selected bidder to enter into the Agreement. Upon such refusal, the Construction Manager and Owner may award the Contract to the next qualified bidder, at the Construction Manager and Owner's option, with the initially selected bidder's bid guaranty being retained as provided by law.
- 10.8 Should the Construction Manager and Owner adjudge that the apparent low bidder is not the lowest responsible, responsive bidder by virtue of the above information, said apparent low bidder will be so notified and his bid security shall be returned.

ARTICLE 11. MINORITY BUSINESS CONTRACT PROVISIONS (CONSTRUCTION)

11.1 APPLICATION:

The Guidelines for Recruitment and Selection of Minority Businesses for Participation in University of North Carolina School Systems Construction Contracts are hereby made a part of these contract documents. These guidelines shall apply to all contractors regardless of ownership. Copies of these guidelines may be found in the bid manual.

11.1.1 MINORITY BUSINESS SUBCONTRACT GOALS:

The goals for participation by minority firms as subcontracts on this project have been set at 20%.

The bidder must identify on its bid, the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit (Affidavit A) listing good faith efforts or affidavit (Affidavit B) of self-performance of work, if the bidder will perform work under contract by its own workforce, as required by G.S. 143-128.2(c) and G.S. 143-128.2(f).

- a. The lowest responsible, responsive bidder must provide Affidavit C, which includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal.

OR

1. Provide Affidavit D, which includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, with documentation of Good Faith Effort, if the percentage is not equal to the applicable goal.

OR

2. Provide Affidavit B, which includes sufficient information for the State to

determine that the bidder does not customarily subcontract work on this type of project.

The above information must be provided as required. Failure to submit these documents is grounds for rejection of the bid.

11.3 MINIMUM COMPLIANCE REQUIREMENTS:

All written statements, affidavits or intentions made by the Bidder shall become a part of the agreement between the Subcontractor and the Construction Manager for performance of this contract. Failure to comply with any of these statements, affidavits or intentions or with the minority business Guidelines shall constitute a breach of the contract. A finding by the Construction Manager or the University of North Carolina School Systems that any information submitted either prior to award of the contract or during the performance of the contract is inaccurate, false or incomplete, shall also constitute a breach of the subcontract. Any such breach may result in termination of the subcontract in accordance with the termination provisions contained in the contract. It shall be solely at the option of the Construction Manager and Owner whether to terminate the contract for breach.

In determining whether a Subcontractor has made Good Faith Efforts, the University of North Carolina School System will evaluate all efforts made by the Subcontractor and will determine compliance in regard to quantity, intensity, and results of these efforts. Good Faith Efforts include:

1. Contacting minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor or available on the State or local government maintained lists at least 10 days before the bid or proposal date and notifying them of the nature and scope of the work to be performed.
2. Making the construction plans, specification and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bid or proposals are due.
3. Breaking down or combining element of work into economically feasible units to facilitate minority participation.
4. Working with minority trade, community, or contractor organizations identified by the Office for Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
5. Attending any prebid meetings scheduled by the public owner.
6. Providing assistance in getting bonding or insurance or providing alternatives to bonding or insurance for subcontractors.
7. Negotiating in good faith with interested minority businesses and not rejecting them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
8. Providing assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisting minority businesses in establishing same unit pricing with the bidder's suppliers in order to help minority businesses

in establishing credit.

9. Negotiating joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
 10. Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.
- 11.4 Minority participation shall be credited toward the Subcontractor's achievement of the Minority Goal and good-faith efforts only after payments are actually made by the Subcontractor to Minority Subcontractors as recorded by Appendix 'E' - MBE Documentation for Contract Payment Affidavit. Each Subcontractor shall maintain records and documents of payments to MBE Subcontractors for a minimum of "three years following final acceptance of the Project by the Owner. Records shall be made available by the Subcontractor for inspection upon request by any authorized representative of the Owner or the University of North Carolina School Systems Personnel. The Subcontractor shall include similar reporting requirements in any Sub-subcontract with any certified MBE Sub-subcontractors.

ARTICLE 12. WITHDRAWAL OF BIDS

- 12.1 A bidder may withdraw a bid only by submitting a written request to the Owner prior to the time fixed for the opening of bids.
- 12.2 Except as otherwise provided by law or in any supplement to these Instructions to Bidders, no bidder is permitted to modify, withdraw, or cancel its bid or any part thereof for sixty (60) days after the time fixed of the opening of bids.

ARTICLE 13. REJECTION OF BIDS

- 13.1 The bidder acknowledges the Owner's right to reject any and all bids and to waive any informality or irregularity in any bid received. In addition, the bidder recognizes the Owner's right to reject a bid if the bidder fails to submit the data required by the bid documents or if the bid is irregular or incomplete in any way or if for any reason the Owner considers being in its best interest to reject the bid.

ARTICLE 14. PRE-BID CONFERENCE:

- 14.1 Prior to the date set for receiving bids, the Construction Manager will arrange and conduct a Pre-Bid Conference for all prospective bidders. The purpose of this conference is to review project requirements and to respond to questions from prospective bidders and their subcontractors or material suppliers related to the intent of bid documents. Attendance by prospective bidders shall be **strongly encouraged** as noted by the "Notice to bidders".
- 14.2 The agenda for the Pre-Bid Conference will include project team introductions, project overview, explanation of project involvement expectations, review of project procedures, review of bidding procedures, review of bid documents and bid form, review of project schedule milestone dates, review of project work Rules and site utilization, contract work scope(s), safety, and address bidder questions.
- 14.3 The Construction Manager will prepare minutes of the pre-bid meeting and provide them to Bidders in the form of Addendum #1. Failure of the Bidder to attend the pre-bid conference, or to obtain, review and act on the minutes thereof, which results in the Bidder not being fully acquainted with the requirements of the Project, will not be considered as a basis for additional compensation.

Substitution Request Form

Submit to the Construction Manager on Supplier/Trade/Subcontractor Company Letterhead

Date: _____

Request No.: _____

Project: _____

We hereby submit for your consideration the following product instead of the specified item for the above project:

Section	Paragraph	Specified Item Description
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_____	_____	_____
-------	-------	-------

Proposed Substitution: _____

Attach complete technical data including laboratory tests if applicable. YES NO

Include complete information detailing changes to Drawings and/or Specifications which proposed substitution will require for proper installation. Complete all blanks below:

A. Does the substitution affect dimensions shown on Drawings? YES NO

If YES, explain: _____

B. Will substitution have impact on other trades? YES NO

If YES, explain: _____

C. Differences between proposed/specified item? YES NO

If YES, explain: _____

D. Substitute product(s) have/has been reviewed to ensure all are compatible for installation in accordance with project requirements? YES NO

If NO, explain: _____

E. Manufacturer's guarantees of proposed/specified items meet specifications? YES NO

If NO, explain: _____

F. Will substitution have impact on project schedule? YES NO

If YES, explain: _____

G. Savings ____ or Credit ____ to the project for accepting substitution? \$_____

Provide calculation of how credit or savings was determined: _____

H. The undersigned agrees to pay all associated costs for changes to design (including engineering and detailing costs) and impact to other trades (if any) caused by substitution? YES NO If NO, explain: _____

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

Submitted By: _____

Company Name, Address

_____ Date: _____

Signature

_____ Contact Number

For Internal Use Only

Review Completed by: _____ Date: _____

- Approved to Submit to Design Professional**
- Additional Details/Information Required**
- Not Approved/Rejected**

Comment: _____

Barnhill
PRE BID REQUEST FOR INFORMATION
UNCC ACADEMIC COMPLEX RENOVATIONS
SCO ID# 13-11117-01A

TO: Barnhill Contracting
5701 Westpark Drive, Suite 205
Charlotte, NC 28217

RFI # 000

FROM:

ATTN: DAVID WELLING, AIA, LEED AP

SUBCONTRACTOR NAME: _____

SCOPE REFERENCE: _____

SUBJECT MATTER: _____

PAGE REFERENCE: _____

DESCRIPTION:

REQUESTED BY: _____

DATE:

RESPONSE:

BY: _____

DATE:

Contract Document Log

Issue date for all Drawings, and Project Manual is September 7, 2016

GENERAL

G-001 COVER SHEET

G-002 CODE DATA

G-003 FIRST FLOOR LIFE SAFETY PLAN

G-004 SECOND FLOOR LIFE SAFETY PLAN

G-005 OCCUPANCY CATEGORY & OCCUPANT LOAD

G-006 OCCUPANCY CATEGORY & OCCUPANT LOAD

G-007 UL ASSEMBLIES

G-101 FIRST FLOOR PHASING PLAN

G-102 SECOND FLOOR PHASING PLAN

CIVIL

C-200 SITE

ARCHITECTURAL

A-001 DRAWING SYMBOLS, GENERAL NOTES AND ABBREVIATIONS

AS101 ARCHITECTURAL SITE PLAN

AD101A MACY - FIRST FLOOR PLAN DEMOLITION

AD102A MACY - SECOND FLOOR PLAN DEMOLITION

A-101 A MACY - FIRST FLOOR PLAN RENOVATION

A-102 A MACY - SECOND FLOOR PLAN RENOVATION

A-111A MACY - FIRST FLOOR REFLECTED CEILING PLAN

A-112A MACY - SECOND FLOOR REFLECTED CEILING PLAN

AD101B BARNARD - FIRST FLOOR PLAN DEMOLITION

AD102B BARNARD - SECOND FLOOR PLAN DEMOLITION

A-101B BARNARD - FIRST FLOOR PLAN RENOVATION

A-102B BARNARD - SECOND FLOOR PLAN RENOVATION

A-111B BARNARD - FIRST FLOOR REFLECTED CEILING PLAN

A-112B BARNARD - SECOND FLOOR REFLECTED CEILING PLAN

AD101C DENNY - FIRST FLOOR PLAN DEMOLITION

AD102C DENNY - SECOND FLOOR PLAN DEMOLITION

A-101C DENNY - FIRST FLOOR PLAN RENOVATION

A-102C DENNY - SECOND FLOOR PLAN RENOVATION

A-111C DENNY - FIRST FLOOR REFLECTED CEILING PLAN

A-112C DENNY - SECOND FLOOR REFLECTED CEILING PLAN

A-201C DENNY - EAST & WEST ELEVATION DEMOLITION

A-202C DENNY - NORTH & SOUTH ELEVATION DEMOLITION

A-203C DENNY - EAST & WEST ELEVATION RENOVATION

A-204C DENNY - NORTH & SOUTH ELEVATION RENOVATION

AD101D GARINGER - FIRST FLOOR PLAN DEMOLITION

AD102D GARINGER - SECOND FLOOR PLAN DEMOLITION

A-101D GARINGER - FIRST FLOOR PLAN RENOVATION

A-102D GARINGER - SECOND FLOOR PLAN RENOVATION

A-111D GARINGER - FIRST FLOOR REFLECTED CEILING PLAN

A-112D GARINGER - SECOND FLOOR REFLECTED CEILING PLAN

AD101E WINNINGHAM - FIRST FLOOR PLAN DEMOLITION

AD102E WINNINGHAM - SECOND FLOOR PLAN DEMOLITION
A-101E WINNINGHAM - FIRST FLOOR PLAN RENOVATION
A-102E WINNINGHAM - SECOND FLOOR PLAN RENOVATION
A-111E WINNINGHAM - FIRST FLOOR REFLECTED CEILING PLAN
A-112E WINNINGHAM - SECOND FLOOR REFLECTED CEILING PLAN
A-401 ENLARGED PLANS
A-402 ENLARGED PLANS
A-403 ENLARGED PLANS
A-404 RESTROOM ELEVATIONS
A-405 STAIR PLANS
A-406 STAIR PLANS
A-407 LECTURE ROOM PLANS
A-501 WALL SECTIONS AND DETAILS
A-502 WALL SECTIONS AND DETAILS
A-503 WALL SECTIONS AND DETAILS
A-504 WALL SECTIONS AND DETAILS
A-601 DOOR AND FRAME SCHEDULE, DOOR TYPES, FRAME TYPES, AND WINDOW TYPES
A-701 ROOM FINISH SCHEDULE
A-702 ROOM FINISH SCHEDULE
A-703 FLOORING - BASE BID 1ST FLOOR
A-704 FLOORING - BASE BID 2ND FLOOR
A-705 FLOORING - ALTERNATE #7A 1ST FLOOR
A-706 FLOORING - ALTERNATE #7A 2ND FLOOR
A-707 FLOORING - ALTERNATE #7B 1ST FLOOR
A-708 FLOORING - ALTERNATE #7B 2ND FLOOR
A-709 FLOORING - ALTERNATE #7C 1ST FLOOR
A-710 FLOORING - ALTERNATE #7C 2ND FLOOR
A-711A MACY - FIRST FLOOR WAYFINDING
A-712A MACY - SECOND FLOOR WAYFINDING
A-711B BARNARD - FIRST FLOOR WAYFINDING
A-712B BARNARD - SECOND FLOOR WAYFINDING
A-711C DENNY - FIRST FLOOR WAYFINDING
A-712C DENNY - SECOND FLOOR WAYFINDING
A-711D GARINGER - FIRST FLOOR WAYFINDING
A-712D GARINGER - SECOND FLOOR WAYFINDING
A-711E WINNINGHAM - FIRST FLOOR WAYFINDING
A-712E WINNINGHAM - SECOND FLOOR WAYFINDING

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S-001 GENERAL INFORMATION
S-101C DENNY EXISTING FOUNDATION PLAN
S-101E WINNINGHAM EXISTING FOUNDATION PLAN
S-801 TYPICAL DETAILS

EXTERIOR WORK

W-101A MACY TYPICAL FLOOR PLAN RENOVATION

W-102B BARNARD TYPICAL FLOOR PLAN RENOVATION
W-103C DENNY TYPICAL FLOOR PLAN RENOVATION
W-104D GARINGER TYPICAL FLOOR PLAN RENOVATION
W-105E WINNINGHAM TYPICAL FLOOR PLAN RENOVATION
W-401 PARTIAL ELEVATION - TYPICAL
W-402 PARTIAL ELEVATION @ LOUVERS - TYPICAL
W-403 PARTIAL ELEVATION DENNY BUILDING
W-404 PARTIAL ELEVATION
W-701 SECTIONS & DETAILS TYPICAL
W-702 SECTIONS & DETAILS TYPICAL
W-703 SECTIONS & DETAILS TYPICAL
W-703 SECTIONS & DETAILS TYPICAL
W-704 SECTIONS & DETAILS TYPICAL

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M-002 MECHANICAL SCHEDULES
M-003 MECHANICAL SCHEDULES
M-004 MECHANICAL VENTILATION SCHEDULES
M-005 MECHANICAL VENTILATION SCHEDULES
M-006 MECHANICAL SEQUENCE OF OPERATION
M-007 MECHANICAL POINTS LIST
MD-101A FIRST FLOOR MACY DEMOLITION PLAN
MD-102A SECOND FLOOR MACY DEMOLITION PLAN
M-101A FIRST FLOOR MACY NEW WORK PLAN
M-101AP FIRST FLOOR MACY NEW WORK PLAN PIPING
M-102A SECOND FLOOR MACY NEW WORK PLAN
M-102AP SECOND FLOOR MACY NEW WORK PLAN PIPING
MD-101B FIRST FLOOR BARNARD DEMOLITION PLAN
MD-102B SECOND FLOOR BARNARD DEMOLITION PLAN
M-101B FIRST FLOOR BARNARD NEW WORK PLAN
M-101BP FIRST FLOOR BARNARD NEW WORK PLAN PIPING
M-102B SECOND FLOOR BARNARD NEW WORK PLAN
M-102BP SECOND FLOOR BARNARD NEW WORK PLAN PIPING
MD-100C FIRST FLOOR DENNY DEMOLITION PLAN
MD-101C FIRST FLOOR DENNY DEMOLITION PLAN
MD-102C SECOND FLOOR DENNY DEMOLITION PLAN
M-101C FIRST FLOOR DENNY NEW WORK PLAN
M-101CP FIRST FLOOR DENNY NEW WORK PLAN PIPING
M-102C SECOND FLOOR DENNY NEW WORK PLAN
M-102CP SECOND FLOOR DENNY NEW WORK PLAN PIPING
MD-101D FIRST FLOOR GARINGER DEMOLITION PLAN
MD-102D SECOND FLOOR GARINGER DEMOLITION PLAN
M-101D FIRST FLOOR GARINGER NEW WORK PLAN
M-101DP FIRST FLOOR GARINGER NEW WORK PLAN PIPING
M-102D SECOND FLOOR GARINGER NEW WORK PLAN

MD-101E FIRST FLOOR WINNINGHAM DEMOLITION PLAN
MD-102E SECOND FLOOR WINNINGHAM DEMOLITION PLAN
M-101E FIRST FLOOR WINNINGHAM NEW WORK PLAN
M-101EP FIRST FLOOR WINNINGHAM NEW WORK PLAN PIPING
M-102E SECOND FLOOR WINNINGHAM NEW WORK PLAN
M-102EP SECOND FLOOR WINNINGHAM NEW WORK PLAN PIPING
MD-201 OVERALL ROOF PLAN DEMOLITION PLAN
M-201 OVERALL ROOF PLAN NEW WORK
M-300A MACY ENLARGED MECHANICAL ROOMS
M-300B BARNARD ENLARGED MECHANICAL ROOMS
M-301B BARNARD MECHANICAL ROOM DETAILS
M-300C DENNY ENLARGED MECHANICAL ROOM
M-301C DENNY MECHANICAL ROOM DETAILS
M-300E WINNINGHAM ENLARGED MECHANICAL ROOMS
M-501 MECHANICAL DETAILS
M-502 MECHANICAL DETAILS
M-503 MECHANICAL DETAILS

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P-001 PLUMBING NOTES AND LEGEND
P-002 PLUMBING SCHEDULES AND PIPE PENETRATION DETAILS
PD-101A FIRST FLOOR MACY DEMOLITION PLAN
PD-102A SECOND FLOOR MACY DEMOLITION PLAN
P-101A FIRST FLOOR MACY NEW WORK PLAN
P-102A SECOND FLOOR MACY NEW WORK PLAN
PD-101B FIRST FLOOR BARNARD DEMOLITION PLAN
PD-102B SECOND FLOOR BARNARD DEMOLITION PLAN
P-101B FIRST FLOOR BARNARD NEW WORK PLAN
P-102B SECOND FLOOR BARNARD NEW WORK PLAN
PD-101C FIRST FLOOR DENNY DEMOLITION PLAN
PD-102C SECOND FLOOR DENNY DEMOLITION PLAN
P-101C FIRST FLOOR DENNY NEW WORK PLAN
P-102C SECOND FLOOR DENNY NEW WORK PLAN
PD-101D FIRST FLOOR GARINGER DEMOLITION PLAN
PD-102D SECOND FLOOR GARINGER DEMOLITION PLAN
P-101D FIRST FLOOR GARINGER NEW WORK PLAN
P-102D SECOND FLOOR GARINGER NEW WORK PLAN
PD-101E FIRST FLOOR WINNINGHAM DEMOLITION PLAN
PD-102E SECOND FLOOR WINNINGHAM DEMOLITION PLAN
P-101E FIRST FLOOR WINNINGHAM NEW WORK PLAN
P-102E SECOND FLOOR WINNINGHAM NEW WORK PLAN

FIRE PROTECTION

FP-001 FIRE PROTECTION NOTES AND LEGEND
FP-002 FIRE PROTECTION DETAILS
FP-003 FIRST FLOOR PLAN - OVERALL
FP-004 SECOND FLOOR PLAN - OVERALL

FP-101A FIRST FLOOR MACY NEW WORK PLAN
FP-102A SECOND FLOOR MACY NEW WORK PLAN
FP-101B FIRST FLOOR BARNARD NEW WORK PLAN
FP-102B SECOND FLOOR BARNARD NEW WORK PLAN
FP-101C FIRST FLOOR DENNY NEW WORK PLAN
FP-102C SECOND FLOOR DENNY NEW WORK PLAN
FP-101D FIRST FLOOR GARINGER NEW WORK PLAN
FP-102D SECOND FLOOR GARINGER NEW WORK PLAN
FP-101E FIRST FLOOR WINNINGHAM NEW WORK PLAN
FP-102E SECOND FLOOR WINNINGHAM NEW WORK PLAN

ELECTRICAL

E-001 ELECTRICAL NOTES
E-002 ELECTRICAL SYMBOL LEGEND
E-003 ELECTRICAL DETAILS
E-004 ELECTRICAL DETAILS
E-005 ELECTRICAL DETAILS
E-006 ELECTRICAL DETAILS
E-007 ELECTRICAL DETAILS AND LIGHT FIXTURE SCHEDULE
E-008 ELECTRICAL DETAILS
E-009 SITE PLAN
ED101A MACY FIRST FLOOR PLAN DEMOLITION LIGHTING
ED102A MACY SECOND FLOOR PLAN DEMOLITION LIGHTING
E-101A MACY FIRST FLOOR PLAN RENOVATION LIGHTING
E-102A MACY SECOND FLOOR PLAN RENOVATION LIGHTING
ED101B BARNARD FIRST FLOOR PLAN DEMOLITION LIGHTING
ED102B BARNARD SECOND FLOOR PLAN DEMOLITION LIGHTING
E-101B BARNARD FIRST FLOOR PLAN RENOVATION LIGHTING
E-102B BARNARD SECOND FLOOR PLAN RENOVATION LIGHTING
ED101C DENNY FIRST FLOOR PLAN DEMOLITION LIGHTING
ED102C DENNY SECOND FLOOR PLAN DEMOLITION LIGHTING
E-101C DENNY FIRST FLOOR PLAN RENOVATION LIGHTING
E-102C DENNY SECOND FLOOR PLAN RENOVATION LIGHTING
ED101D GARINGER FIRST FLOOR PLAN DEMOLITION LIGHTING
ED102D GARINGER SECOND FLOOR PLAN DEMOLITION LIGHTING
E-101D GARINGER FIRST FLOOR PLAN RENOVATION LIGHTING
E-102D GARINGER SECOND FLOOR PLAN RENOVATION LIGHTING
ED101E WINNINGHAM FIRST FLOOR PLAN DEMOLITION LIGHTING
ED102E WINNINGHAM SECOND FLOOR PLAN DEMOLITION LIGHTING
E-101E WINNINGHAM FIRST FLOOR PLAN RENOVATION LIGHTING
E-102E WINNINGHAM SECOND FLOOR PLAN RENOVATION LIGHTING
ED201A MACY FIRST FLOOR PLAN DEMOLITION POWER
ED202A MACY SECOND FLOOR PLAN DEMOLITION POWER
E-201A MACY FIRST FLOOR PLAN RENOVATION POWER
E-202A MACY SECOND FLOOR PLAN RENOVATION POWER
ED201B BARNARD FIRST FLOOR PLAN DEMOLITION POWER

ED202B	BARNARD SECOND FLOOR PLAN DEMOLITION POWER
E-201B	BARNARD FIRST FLOOR PLAN RENOVATION POWER
E-202B	BARNARD SECOND FLOOR PLAN RENOVATION POWER
ED201C	DENNY FIRST FLOOR PLAN DEMOLITION POWER
ED202C	DENNY SECOND FLOOR PLAN DEMOLITION POWER
E-201C	DENNY FIRST FLOOR PLAN RENOVATION POWER
E-202C	DENNY SECOND FLOOR PLAN RENOVATION POWER
ED201D	GARINGER FIRST FLOOR PLAN DEMOLITION POWER
ED202D	GARINGER SECOND FLOOR PLAN DEMOLITION POWER
E-201D	GARINGER FIRST FLOOR PLAN RENOVATION POWER
E-202D	GARINGER SECOND FLOOR PLAN RENOVATION POWER
ED201E	WINNINGHAM FIRST FLOOR PLAN DEMOLITION POWER
ED202E	WINNINGHAM SECOND FLOOR PLAN DEMOLITION POWER
E-201E	WINNINGHAM FIRST FLOOR PLAN RENOVATION POWER
E-202E	WINNINGHAM SECOND FLOOR PLAN RENOVATION POWER
ED301A	MACY FIRST FLOOR PLAN DEMOLITION FIRE ALARM
ED302A	MACY SECOND FLOOR PLAN DEMOLITION FIRE ALARM
E-301A	MACY FIRST FLOOR PLAN RENOVATION FIRE ALARM
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Section Two

UNCC Academic Complex

Renovations

MWBE Participation Plan



Barnhill Contracting Company MWBE Participation Plan

ARTICLE 1 – POLICY

- 1.1 It is the policy of Barnhill Contracting Company that Historically Underutilized Businesses shall have the maximum opportunity to participate in the performance of contracts undertaken by Barnhill Contracting Company. Barnhill Contracting Company will utilize its project resources to assist Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) to the fullest extent possible. It is our intent to provide meaningful opportunities for small and disadvantaged business by utilizing the procedures outlined in this plan.
- 1.2 The following project specific measures will be utilized to assist Minority Businesses on the UNC Charlotte Academic Complex Renovation.
- 1.2.1** Bid / Payment and Performance Bonds will not be required for Bid Packages less than \$500,000.00, except for building envelope bid packages. If a Subcontract is submitting on multiple trade packages and the aggregate of the packages meets or exceeds \$500,000.00, a Bid, Payment and Performance Bond will be required for each trade package.
- 1.2.2** Provide Progress Payments to 1st Tier Subcontractors, and 2nd Tier Subcontractors/Vendors on a biweekly basis in lieu of on a Monthly basis. If a MWBE firm requests assistance with cash flow needs, Barnhill Contracting will work with that Subcontractor, or Vendor, to arrange payment on a biweekly basis through a joint check arrangement.
- 1.2.3** HUB Outreach presentations to provide MWBE firms information about this project. At each outreach session attendees were presented with a description of Barnhill Contracting's plan for HUB inclusion, the Good Faith Effort requirements, anticipated bid packages, CMAR approach, Prequalification bidding structure and forms, and other project information. This meeting gave 1st and 2nd Tier MWBE Subcontractors and suppliers the chance to meet, and network with Other 1st Tier Subcontractors and suppliers in the construction industry.

ARTICLE 2 - OBLIGATION

- 2.1 Barnhill Contracting Company and our majority Subcontractors shall endeavor to ensure that minority and women businesses have the maximum opportunity to participate in the performance of our work included in our contracts. Barnhill Contracting Company and any subsequent Subcontractors shall not discriminate on the basis of race, color, national origin or sex. Barnhill Contracting Company will do a better job than any other contractor in the state of North Carolina. We will know the capacities and capabilities of the minority contracting community and provide them with fair and reasonable opportunities.

ARTICLE 3 - GOALS

- 3.1 Barnhill Contracting Company has established the following goals for participation on all of our contracts:
- 3.1.1 Minority/Women Business Enterprises 25%
- 3.1.2 Barnhill Contracting Company shall exercise all necessary and reasonable steps to ensure that MWBE's participate in at least the percent of our contracts as set forth above.

ARTICLE 4 – REQUIRED INFORMATION

- 4.1 Barnhill Contracting Company will maintain for the purposes of tracking our participation the following information. :
- 4.1.1 The names of MWBE firms;
- 4.1.2 The Contract Item Numbers of work performed by each MWBE firm; and

4.1.3 The total dollar amount to be paid to each MWBE based on agreed upon price.

ARTICLE 5 – GOOD FAITH EFFORTS

5.1 Barnhill Contracting Company is accustomed to the Good Faith Efforts required by GS 143-128.2, and will make all the required efforts to recruit minority participation. In addition to the requirements in GS 143-128.2 the following good faith efforts will be utilized by Barnhill Contracting for this project:

- 5.1.1 Provide access to project documents whenever MWBE businesses need access to it. If a MWBE business has issues accessing, downloading, or viewing the project documents on our plan room, documents can be transferred electronically, or WMBE businesses can utilize hard copy plans and specifications in the Barnhill Office.
- 5.1.2 Provide professional assistance to MWBE firms during the bid process, including guidance on registering the MWBE business through the Statewide Uniform Certification program, instruction on prequalification, and bid procedures/documents to ensure MMBE participation, and avoid non-compliant MWBE bids.
- 5.1.3 Attended any pre-bid meetings or trade fairs that inform MWBE firms of subcontracting opportunities;
- 5.1.4 Follow up on initial solicitations of interests by contacting MWBE firms to determine with certainty whether they are interested in projects we are bidding;
- 5.1.5 Whenever possible carve out portions of the work for MWBE firms so we will have a greater likelihood of meeting our goals. For this project, these portions of work include but are not limited to the following bid packages:
 - BP-01A: General Trades and Final Cleaning
 - BP-02B: Concrete Paving
 - BP-02C: Unit Pavers
 - BP-02E: Landscaping
 - BP-03A: Turnkey Concrete
 - BP-03B: Concrete Flatwork – Place and Finish
 - BP-03C: Concrete Ready Mix Materials
 - BP-03D: Concrete Reinforcement Materials
 - BP-04A: Turnkey Masonry
 - BP-07A: Caulking and Waterproofing
 - BP-09F: Painting

ARTICLE 6 – DIRECTORY OF CERTIFIED BUSINESSES

- 6.1 Barnhill Contracting Company will only recognize firms that are properly certified. In order to be considered properly certified on a State of North Carolina project, your firm (or second tier subcontractors counting towards your participation goals) **MUST** be registered through the “Statewide Uniform Certification (SWUC)” program under the State of North Carolina HUB Office. **ONLY** those MWBE firms with current certification in these programs will be used to meet our goals.
- 6.2 Barnhill Contracting Company will utilize the SWUC website to search for and recruit Subcontractors and Vendors in surrounding counties that may be interested in bidding this project.

Equal Opportunity Certificate of Assurance

FIRM NAME

, the undersigned

Certifies that he does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that the Undersigned does not and will not permit its employees to perform their services at any location, under the Undersigned's control, where segregated facilities are maintained. The Undersigned understands that the phrase "segregated facilities" means any waiting rooms, work areas, rest rooms, and wash rooms, restaurants, and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. The Undersigned understands and agrees that maintaining or providing segregated facilities for its employees to perform their services at any locations, under the Undersigned's control, where segregated facilities are maintained, is a violation of the Equal Opportunity Clause required by Executive Order 11246 of September 24, 1965 and 11375 of October 13, 1967 and the rules and regulations thereunder.

The Undersigned further agrees that it will obtain identical certifications from proposed subcontractors prior to the award of agreements exceeding \$10,000.00, which are not exempt from the provisions of the Equal Opportunity Clause.

The Undersigned agrees to comply with all reporting requirements of Executive Order 11246 of September 24, 1965 and 11375 of October 13, 1967 and regulations issued by the Department of Labor. Employer Information Report EED-1 (standard form 100) must be filed with the Joint Reporting Committee no later than May 31 each year.

If a current government approved Equal Employment Opportunity Affirmative Action Program pursuant of 41CFR 60-2 is available, please check here _____. If a currently approved program is not available, the Undersign hereby agrees to develop and secure government approval of an Equal Employment Opportunity Action Program within 120 days after receipt of any agreement of \$50,000.00 or more and if the Undersign has over fifty (50) employees.

Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

Authorized Signature

Date

AFFIDAVIT A – LISTING OF THE GOOD FAITH EFFORT

University of North Carolina Project _____

Affidavit of _____
(Name of Bidder)

I have made a good faith effort to comply under the following areas checked:

(A minimum of 50 points must be obtained in order to have achieved a "good faith effort")

- 1. Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed. **Value = 10 points.**
- 2. Made the construction plans, specifications and requirements available for **review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.** **Value = 10 points.**
- 3. Broken down or combined elements of work into economically feasible units to facilitate minority participation. **Value = 15 points.**
- 4. Worked with minority trade, community, or contractor organizations identified by the Office of business Assistance Program and included in the bid documents that provide assistance in recruitment of minority businesses. **Value = 10 points.**
- 5. Attended prebid meetings scheduled by the public owner. **Value = 10 points.**
- 6. Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors. **Value = 20 points.**
- 7. Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing. **Value = 15 points.**
- 8. Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure pay loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit. **Value = 25 points.**
- 9. Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible. **Value = 20 points.**
- 10. Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands. **Value = 20 points.**

TOTAL POINTS OBTAINED _____

In accordance with GS 143.128.2(d) the undersigned will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon execution of a contract with the Owner. Failure to abide by this statutory provision will constitute a breach of the contract.

The Undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____

Name of Authorized Officer: _____

Signature: _____

Title: _____

State of North Carolina, County of _____

Subscribed and sworn to before this _____ day of _____ 20____

Notary Public _____ My commission expires _____



AFFIDAVIT B – INTENT TO PERFORM CONTRACT WITH OWN WORKFORCE

University of North Carolina Project _____

Affidavit of _____
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the _____
_____ contract.
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement.

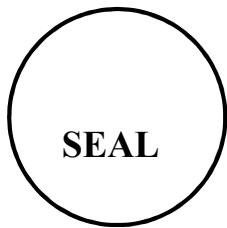
The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: _____

Name of Authorized Officer: _____

Signature: _____

Title: _____



State of North Carolina, County of _____

Subscribed and sworn to before this _____ day of _____ 20____

Notary Public _____

My commission expires _____

AFFIDAVIT C – PORTION OF THE WORK TO BE PERFORMED BY MINORITY FIRMS

University of North Carolina Project _____

***** (NOTE: THIS FORM IS NOT TO BE SUBMITTED WITH THE BID PROPOSAL) *****

 If the portion of the work to be executed by minority businesses as defined in GS 143-128.2(g) is equal to or greater than 10% of the bidders total contract price, then the bidder must complete this affidavit. This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

 Affidavit of _____ I hereby certify that on the
 (Name of bidder)

 Project ID# _____ Amount of Bid \$ _____
 (Project Name)

I will expend a minimum of _____ % of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below.

Attach additional sheets if required

Name and Phone Number	*Minority Category	Work Description	Dollar Value

 *Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**), American Indian (**I**), Female (**F**)

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

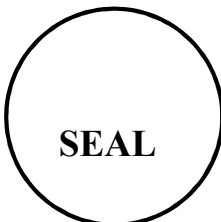
Signature: _____

Title: _____

State of North Carolina, County of _____

Subscribed and sworn to before this _____ day of _____ 20____

Notary Public _____ My commission expires _____



AFFIDAVIT D – GOOD FAITH EFFORTS

University of North Carolina Project _____

 If the goal 10% participation by minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

 Affidavit of _____
 (Name of Bidder)

 I do certify the attached documentation as true and accurate representation of my good faith efforts.
 (Attach additional sheets if required)

Name and Phone Number	*Minority Category	Work Description	Dollar Value

 * Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**), American Indian (**I**), Female (**F**)

Documentation of the Bidder’s good faith efforts to meet the goals set forth in these provisions. Examples of documentation include, but are not limited to, the following evidence:

- A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the state for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitations shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime bidder to contact, and location, date and time when quotes must be received.
- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- F. Copy of pre-bid roster.
- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- H. Letter detailing
- I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

Date: _____ Name of Authorized Officer: _____

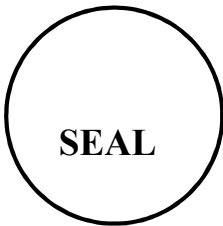
Signature: _____

Title: _____

State of North Carolina, County of _____

Subscribed and sworn to before this _____ day of _____ 20____

Notary Public _____ My commission expires _____



SECTION TWO – MWBE PARTICIPATION PLAN
MBE DOCUMENTATION FOR CONTRACT PAYMENTS

Prime Contractor/Architect: _____

Address & Phone: _____

Project Name: _____

Pay Application #: _____ Period: _____

The following is a list of payments to be made to minority business contractors on this project for the above-mentioned period.

Firm Name	* Indicate Type of Minority	Payment Amount this Period	Total Amount Paid to Date	Total Amount Committed

*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

Date: _____

Approved/Certified By: _____

Name

Title

Signature

****THIS DOCUMENT MUST BE SUBMITTED WITH EACH PAY REQUEST & FINAL PAYMENT****

UNC Charlotte
“Good Faith Effort” Requirements
Construction Manager at Risk Projects

1. Determine the scopes of work that you will be outsourcing and state them in the Invitation For Bids (IFB) that you send to prospective minority subcontractors.
2. Solicit quotes from **at least** three (3) minority firms for each scope of work you plan to outsource.
3. Send minority firms your IFB as soon as possible, but **not less than** ten (10) days prior to the bid opening date.
4. **Maintain a telephone log to confirm that minority firms received your IFB.** The Log should contain the date contacted, telephone number, and name of the individual representing the minority firm who acknowledged receipt of your IFB.
5. **Maintain a telephone log to confirm that minority firms acknowledged a “bid/no bid” to your IFB.** The Log should contain the date contacted, telephone number, and name of the individual representing the minority firm who acknowledged “bid/no bid” to your IFB.
6. If you are contacting a minority trade, community or contractor organization identified by the Office for Historically Underutilized Businesses (HUB) for assistance in obtaining quotes from minority firms, **maintain a copy of the request, and have the date, telephone number and name of the individual who acknowledged receipt of your request and information regarding any/all assistance provided by the organization.**
7. Ensure the minority firms you contact for subcontracting opportunities are listed in the Statewide Uniform Certification (SWUC) Vendor database as **only firms** listed in the SWUC Vendor database, at the time of contract award, will be counted towards the minority participation goal for this project. For access to the SWUC Vendor database go to the HUB Office website at <http://www.doa.nc.gov/hub/> and click on *Search for HUB Vendors*, under Resources.
8. **“Self-Performing”** – means the pre-qualified 1st tier subcontractor has all equipment, personnel and supplies on hand to perform the contract. If the subcontractor needs to purchase supplies or rent equipment and operators to perform the work, then the subcontractor **is not** self-performing. Firms submitting Affidavit B – Intent to Perform Contract with Own Workforce should be able to show that good faith efforts were made to purchase supplies from minority suppliers.
9. Minority-owned pre-qualified 1st tier subcontractors **are also** required to meet the minority participation goals set for the project, unless the firm is **self-performing** (see Item 8 above).
10. Quick Pay Agreements & Policies – Affidavit A - Listing of Good Faith Efforts, Item 10 (20 points). This is only applicable if you have referenced “quick pay” in your IFB as an incentive to obtain minority participation. Quick Pay Agreements should not contain stipulations, such as *firm must demonstrate need for quick pay, or provide plan*

demonstrating viable cash flow, etc, that discourage firms from requesting quick pay. You will need to provide a copy of your Quick Pay Agreement if you are the apparent low responsible, responsive bidder. Payment within thirty (30) days **is not** “quick pay”.

Documents:

Guidelines for Recruitment and Selection of Minority Businesses for Participation in State Construction Contracts (dated MB Guidelines 2002) and Minority Business Participation Forms (to be submitted with bids) can be found at the State Construction Office website - <http://www.nc-sco.com/docBidding.aspx>.

The following forms must be submitted with the bid;

1. **Identification of HUB Certified/Minority Business Participation** form (dated MB Forms 2002- Revised July 2010)
2. **AFFIDAVIT A** – Listing of Good Faith Efforts (dated MB Forms 2002-Revised July 2010),

Or
3. **AFFIDAVIT B** – (Intent to Perform Contract with Own Workforce (dated MB Forms 2002- Revised July 2010).

One of the following forms is to be submitted by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder;

1. **AFFIDAVIT C** – Portion of the work to be Performed by HUB Certified/Minority Businesses (dated MB Forms 2002-Revised July 2010). This form is not required if the bidder submitted Affidavit B.

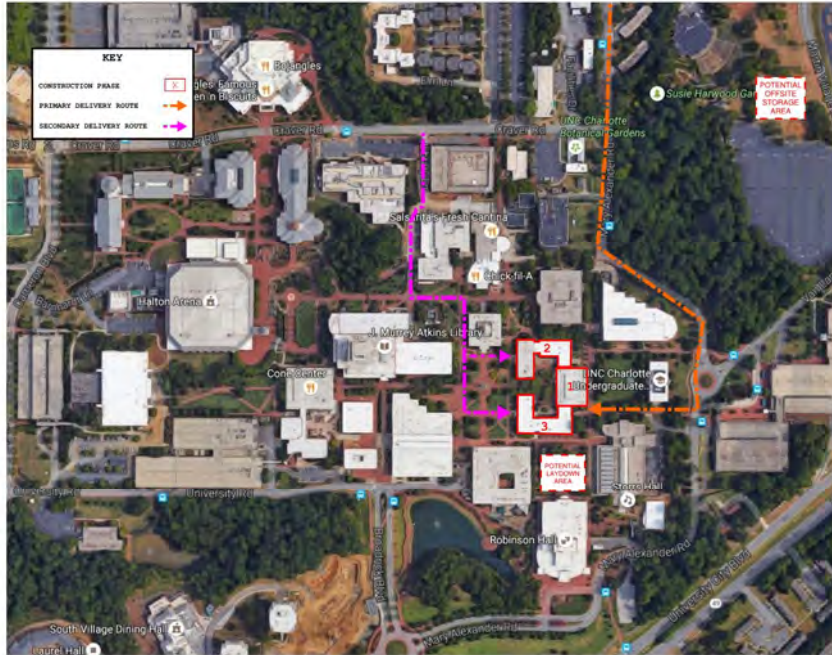
Or
2. **AFFIDAVIT D** – Good Faith Efforts (dated MB Forms 2002-Revised May 2010). This form is not required if the bidder submitted Affidavit B.

Section Three

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Renovations
Site Plan**



Bid Package: BP 001 - GENERAL SCOPE INCLUSION ITEMS**Introduction:**

Each Bid Package Scope of Work shall include all of the following as required to complete the Work as indicated on the Drawings, Specifications and Project Manual, and all Addendums.

Scope Intent:

In general, each Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications, Project Manual, Project Bid Manual and all Addendums. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents.

Scope Inclusion Items:

The following requirements shall be included in ALL Bid Package Scope of Work Summaries. The Subcontractor shall include the below items in their bid price and agrees upon execution of the bid proposal these items are acknowledged and included. The degree of inclusion shall be based upon specific Bid Package requirements necessary to facilitate Project completion:

1. Scope of Work Summary, and associated Contract shall apply to the entirety of all buildings, site work, etc., shown in the Construction Documents. Buildings, Macy, Barnard, Denny, Garinger, and Winningham shall be sequenced per the bid default schedule, and in conjunction with the Construction Manager. Mobilizations and demobilizations shall be included for each phase of work. Any work associated with phasing shall be provided as a function of the scope of work.
2. It is expected that this bidding/awarded subcontractor has visited the site and made themselves aware of the existing conditions and familiarized themselves with the building. Visit site prior to pricing their bid to determine the level of work required and include all necessary pricing in their bid.
3. On-Site Work Hours: All Contractors shall include a 6 workday week for phase one construction, 7a.m. till 5 p.m. Include a 5 day work week, 7 a.m. till 5 p.m. for phase 2 and 3. Weekend Hours: Contractor may work on-site at other hours only with Owner's prior written approval, with at least 72 hours advance request by Contractor. Night work, and weekend work is required for certain Bid Packages, see the Bid Package Scope of Work for requirements.
4. The Subcontractor understands that this document is a summary of items and does not waive any other requirements specified in the Bid or Contract Documents.
5. The Subcontractor has reviewed ALL Bid/Contract Documents including the Supplementary General Conditions: UNC-Charlotte General Requirements, Special Conditions/Requirements, etc.
6. The Subcontractor has reviewed the Subcontract and Exhibits included with the bid documents and takes No Exceptions. The successful bidder will execute the Subcontract in its current form without any modification. No previous Terms or Agreements will apply to the Subcontract.
7. The Subcontractor shall be responsible for examining all of the Documents listed in Section One of the Project Bid Manual, "Project Contract Documents" and "Project Specifications" and all referenced documents. All items related to this Subcontractor's Work and included in these Documents shall be included in the Subcontract Amount. All work shall be performed in accordance with the Contract Documents.
8. All references to 'by Contractor', 'by General Contractor', 'by Construction Manager', 'by CM', 'by Construction Manager at Risk', 'by CMAR', or any other similar language on the drawings and specifications in reference to this scope shall be inferably assumed as 'By this Subcontractor' unless otherwise specified.
9. The Subcontractor has reviewed the lien waiver requirements and will provide the necessary documentation on a monthly basis with that month's application for payment. Specifically this contractor understands the requirements for tiered subcontractor and supplier lien waivers based on the previous month's payment.
10. Pre-Installation Meetings shall be required for each Bid Package: The Construction Manager shall schedule, coordinate and conduct pre-installation meetings for all activities so as not to impact the construction schedule and installation of work. The Pre-Installation Meetings will include the CM, other Subcontractors, Architect, Owner Representative, and Manufacturer Representative. The purpose of the meetings is to verify project

- requirements, substrate conditions, manufacturer's installation instructions, submittal requirements, manufacturer's warranty requirements, architectural details, mock ups, quality control, and safety program.
11. Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays. See each Bid Package Scope of work for specific requirements.
 12. Subcontractor is to submit all submittals to the CM only. Submittals (other than shop drawings) are to be broken up into individual products and transmitted with appropriate, individual cover sheets and/or identifiers, as described in specification section 013300 "Submittal Procedures". Shop drawings are to be packaged together in logical breakdowns of work or "element of construction". Packages of materials lumped together, with no separation of products properly identified and referenced to appropriate specification sections with cover sheets clearly denoting the intent of the product will be returned by the CM as ""Not Reviewed"". The subcontractor is wholly responsible for any schedule or monetary consequences of such action.
 13. Submittals, shop drawings, calculations, O&M manuals, samples, etc., shall be submitted for the entire project at once. Submittals, and O&M manuals will not be separated for each phase of construction, or each building.
 14. Provide all field supervision and labor, materials, equipment, tools, field measuring and accessories required to complete the work. Include all necessary coordination with the work by others as required.
 15. Provide all necessary home office and field administration required to facilitate timely completion of this Contract to include not more than a **5 workday** turnaround on all administrative paperwork requirements and/or requests from Construction Manager.
 16. Subcontractor is required to attend weekly project coordination meetings while work on site is taking place. Subcontractor is required to attend such meetings two-weeks **prior to** work starting on site. Subcontractor meeting participation at weekly project coordination meetings is **mandatory**. This shall be a line item on your schedule of values and if you do not attend the site meeting then this amount will be deducted from your payment. All superintendents must attend any designated meeting by the site Superintendent.
 17. Inspection of all equipment, tools, etc. is required on a **daily** basis and must be reported to the Construction Manager via daily inspection reports.
 18. Subcontractor is required to submit daily construction reports to the Construction Manager describing that day's events. Daily reports must be turned into the Construction Manager by the end of each working day. Failure to submit reports as requested may delay processing of monthly payment to Subcontractor.
 19. Complete all Work in accordance the Construction Manager's Site Specific Safety Plan and must meet all local, state and federal (OSHA) safety regulations, guidelines and/or requirements. The strictest of the above shall govern at all times.
 20. Subcontractor will read, acknowledge and sign Barnhill's safety orientation form prior to the start of the first day's work. A 20 minute safety orientation video or live orientation will be given by the CM to every employee prior to obtaining access the jobsite. A number will be given via sticker to place on the hardhat, along with a badge to be worn, for every employee that has signed the orientation notice. Any employee found working on the site without this sticker or badge will be removed from the jobsite.
 21. Furnish and install all necessary equipment for safety protection (floor opening protection, temp rails, safety harness, work boots, hard hats, etc.) in accordance with all OSHA and local guidelines and regulations as it relates to the work specific to complete the Work.
 22. Provide all necessary engineering, layout, and coordination required to complete Work. CM to provide onsite vertical and horizontal control and one (1) benchmark for subcontractor use. All other layout to complete the Work is the responsibility of the subcontractor requiring unless noted otherwise.
 23. Include mobilizations, demobilizations, and material/equipment staging relocations for all three phases of work, as required to facilitate construction progress, and/or as directed by Construction Manager.
 24. All Work to be completed in accordance with construction progress schedules, weekly meeting coordination, and subsequent updates completed and provided by the Construction Manager.
 25. Strict compliance with project site utilization plans and work rules as issued or directed by Construction Manager.
 26. Provide all task lighting as may be required to complete each scope of work. Permanent lighting may not be available.
 27. **On a daily basis** clean and remove all construction debris and dispose of into dumpster supplied by Construction Manager.

28. All Contractors working onsite shall include sufficient funds to cover cleanup in the project. At approximately 50% completion of each phase, the Construction Manager will bring in temporary labor, 2 men at 48 hours per week. The cost for these 2 temporary labors will be divided amongst the Contractors working on site. Costs will be divided up based on a percentage of manpower, and billed at the end of each phase of work.
29. Project conditions provide limited on site capacity. Store on site only necessary materials and equipment to facilitate 10 days of work as coordinates with site Superintendent. Long-term storage if required will be the requirement of the sub-contractor off site. Subcontractors must receive prior approval from Construction Manager for all onsite storage.
30. Include all necessary means to prevent mud, dirt, dust, and debris, from being tracked or spilled onto existing campus, state, county, or private roads and facilities from the site due to work of this scope, deliveries, and construction equipment. In the event that roadways become contaminated, Subcontractors shall remove and clean debris as requested by the Construction Manager.
31. Provide all fabrication, delivery and unloading / stocking as required for the Work. Any large shipments that have to be unloaded by a forklift will have to be scheduled with the CM's onsite Superintendent within 24 hours of delivery. The contractor will have to be on site to unload the materials and place in the appropriate location for staging as directed and approved by the Superintendent. Due to site access restrictions all deliveries must be delivered using small flatbed trucks. NO SEMI-TRUCK DELIVERIES WILL BE ACCEPTED. Access to the site is limited. All deliveries shall be scheduled with Barnhill prior to delivery. Deliveries will not be accepted unless prior approval has been granted by the CM Superintendent.
32. Subcontractors performing excavation or digging activities are responsible for providing appropriate notice as indicated in the UNC-Charlotte General Requirements as follows: minimum (5) five working days for the UNC-Charlotte Facilities Department and the minimum existing utility locate services (48) hours **prior to** excavation start. Utility Locate Construct Service Work Registration Numbers shall be submitted to the Construction Manager before work is to begin. Subcontractor is responsible for repair of all work to the pre-disturbed condition applicable to the Project site, public and private area that may be impacted by Work.
33. Maintain dust control of own work while performing work on site.
34. Protect finished flooring work where required with Ram Board© or CM approved equal. This includes taping of all seams with heavy duty tape and wrapping protection up walls as required and sealing with tape approved not to damage wall finish.
35. All dewatering of this scope of work as may be necessary to satisfactorily facilitate performance and completion of the work.
36. Provide and maintain all traffic control that pertains to their work, including daily street cleaning as required.
37. Provide all required Mockups/Samples per Project Documents.
38. Hot and cold weather measures as necessary to facilitate completion of this work and in accordance with design criteria and manufacturer recommendations. Subcontractor to provide specific QA/QC plan for items related to scope of work.
39. Firestopping and/or fire-safing all penetrations through fire-rated assemblies is to be included as part of the scope of work as defined in the Bid Package.
40. Existing concrete structural slabs are post-tensioned reinforced slabs. Include nondestructive investigating to ensure no reinforcing is damaged while cutting, coring, or drilling into slabs.
41. Layout and installation of penetrations including core drilling, saw cutting and sleeves is to be included as part of the scope of work as defined in the Bid Package.
42. Layout and installation of penetrations for slabs on grade and slabs on deck is included is to be included as part of the scope of work as defined in the Bid Package.
43. Installation and removal of any and all safety cabling or railing.
44. Removal of all temporary labels and protective coatings/coverings after completion of installation of work.
45. Floor loading is limited. All equipment and material storage must be approved prior to site mobilization and prior to staging in building. All costs to place equipment in the building and remove the equipment from the building will be the responsibility of this subcontractor.
46. Subcontractor responsible for any/all coordination, scheduling and applicable fees for inspections required for completing Work.
47. Protection of work-in-progress and/or work-in-place is required. Damage to the installed work of others will be charged to the responsible party damaging such work.

48. This subcontractor to ensure proper, competent and authorized personnel on hand during all inspections.
49. Include all necessary punch list work. Coordinate with Construction Manager as to timing of punch list work to be completed prior to starting such work. Provide complete as-built documentation and O&M documents per the Project Specifications and Contract Documents as part of “Punch list work” or as requested or directed by Construction Manager. Once the subcontractor is presented the punch list in writing (BIM 360) the subcontractor then has three working days to start performing corrective measures. If the subcontractor doesn’t meet this obligation then it shall be the right of the Construction Manager to supplement the subcontractor and back charge the cost to the prime subcontractor. Mobilization for this work shall be covered under this scope along with any per diem, mileage and hotel.
50. Include all necessary punch list work. The Construction Manager will utilize BIM 360 to manage the punch list on the project; each subcontractor will be provided access to the software and be expected to use it.
51. Provide all project closeout documentation required in Contract Documents within **30 calendar days** of Beneficial Occupancy of this contract or specific phase of work as directed or requested by the Construction Manager.
52. All warranties, including any special warranties, as required and for the period specified per the specifications. It is understood that warranties do not start from date of shipment or installation of equipment. They start from the date of Beneficial Occupancy.
53. Proper testing and demonstration of all equipment as required per specifications. Include authorized representatives of equipment manufacturers at testing and demonstration dates.
54. All necessary Owners’ maintenance/attic stock in accordance with and as indicated in the project specifications.
55. Any equipment/material maintenance agreement for the period as indicated in the project specifications to be included in base bid.
56. Include all necessary mobilizations for labor, material and/or equipment to be in accordance with the Site Logistics Plan.
57. Onsite parking will not be allowed. Offsite parking is the responsibility of each individual contractors.
58. FULL TIME competent superintendent is required while working onsite (the goal is to have one person who is knowledgeable with this specific project and is familiar with the day-to-day operations of the entire project). The supervision must be qualified in all aspects of each scope and have the authority to make decisions. (A Superintendent or Foreman who cannot make a decision in the field is not qualified to run this type of work and the CM will ask they be replaced immediately). This scope includes (1) Competent Superintendent on site at all times while work is in progress. This Superintendent cannot be removed for the duration of this project unless he is terminated from the company or as directed by CM.
59. A supervisor from the awarded company is required to be onsite at all times during work of any lower tier subcontractor.
60. All deliveries must be signed for by the contractor performing this scope of work. CM will not sign for any items (including: UPS, FedEx, DHL, etc.).
61. Any component spelled out for this bid package in the specifications for general contractor to perform shall be performed under this scope of work.
62. Coordination between all plans shall be performed and if any discrepancies are found notify CM for clarification. No compensation will be granted due to lack of plan review and coordination.
63. It is understood that this is a complete working package that meets all codes requirements and is in compliance with AHJ (Authority Having Jurisdiction) and manufacturers. It will be the responsibility of the supplier to acknowledge any circumstances where the drawings or specifications do not meet these requirements. No additions will be granted for failure to disclose any circumstances where the package is incomplete.
64. Field conditions may be encountered during construction that are not clearly shown in the construction documents. These conditions may require additional work that is not specifically shown on the drawings, but is required to meet the design intent. Include provisions for such work as would usually be expected in an existing building of this age and type in the base bid.
65. Any change order that is discovered has to be submitted within seven (7) days of its discovery to the CM. If the contractor does not turn in the appropriate request for change the contractor will forfeit his right for extra compensation and the work still must be installed per contract documents.
66. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact. Store materials protected from exposure to harmful weather conditions. Handle material and components to

avoid damage. Protect materials against damage from elements, construction activities, and other hazards before, during and after installation.

67. Subcontractor shall provide all necessary and required materials, management and field labor, ladders, lifts, radios, safety devices (PPE). Commissioning documentation to include but not limited to, all complete and correct pre-function test reports, all training records-audio, video, and written, coordination meetings, all assistance necessary to accomplish a complete and Final Commissioning Activity per the contract documents. Be advised that should for any reason this activity require premium time and or night/weekend/holiday scheduling this requirement shall be met without any additional cost to the project. Be advised that per-function and or final Commissioning Activities that are confirmed to be deficient and or delinquent by cause of this subcontractor will be subject to responsibility assessment and subsequent cost to be paid by this subcontractor.
68. This project will utilize Building Information Modeling (BIM) to help facilitate the preparation of coordinated drawings for submission to the Architect. This coordination effort will be led by the CMAR with input from all PMES trades. This subcontractor is specifically required to participate in the 3D coordination drawing process for this project, in order to fully coordinate all work with other trades in corridors, chases, mechanical rooms, electrical rooms, etc. This process, the requirements of which are described fully in Section Five “General Requirements” of the bid manual under the heading “Coordination Drawings”, will be spearheaded by the CM based on the information provided by this and other subcontractors involved in the coordination process. **This Subcontractor shall be responsible for creating 3D and 2D coordination shop drawings of all vertical and horizontal work required to responsibly coordinate each trade.** While the CM coordination process will be based on the transfer of electronic files for overlay into the CM produced building model, the end result of this process is solely to identify areas of conflicts with other trades for resolution on the individual subcontractors' shop drawings and does not relieve the subcontractor from the responsibility of submitting for CM/Owner/Architect approval scope of work specific shop drawings (based on this process) in accordance with the shop drawing submittal provisions of the project specifications and contract requirements. The subcontractor is to understand the BIM requirements fully as related to this scope of work and make adequate provisions in the base bid amount to participate in this process from inception through completion, maintaining stated milestone dates, at no additional cost above and beyond the base bid amount.
69. Time of Completion – The Contractor shall commence work to be performed under this agreement upon receipt of the Letter of Intent issued by the Construction Manager. The Contractor shall pay to the Owner liquidated damages as indicated in the Supplemental General Conditions for failure of said Contractor to complete work within time specified, such time being in the essence of this Contract and a material consideration thereof.
70. Refer to individual Bid Package Scopes for additional specific requirements.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 5 workdays of receipt of Notice to Proceed.
2. Submit to the Construction Manager executed contract within 5 workdays of receipt of contract.
3. Submit to the Construction Manager all submittals within 20 calendar days of receipt of Notice to Proceed, Other deemed more critical will be sooner.
4. Submit to the Construction Manager Subcontractor’s project safety plan prior to commencing Work (to include tiered subcontractor plan if applicable).
5. Submit to Construction Manager a “Project Participation List” listing of all subcontractors, material and equipment suppliers, vendors and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name, email address, scope of work, and anticipated contract or purchase order amounts. No Subcontractor payment shall be released until this list is received and approved by the Construction Manager.

6. Within 2 workdays of receipt of Letter of Intent, the Subcontractor shall have permanent project personnel assigned to participate in the Construction Manager's project scheduling sessions.
7. Prior to commencing work on site, Subcontractor shall arrange for all site personnel to complete the Construction Manager's project specific safety orientation program.
8. Subcontractor will comply with all quality related requirements listed in the contract documents. Subcontractor shall follow the protocols and procedures listed in the Quality Control Plan for this project. Within 5 workdays of execution of the subcontract, Subcontractor will submit a Quality Control Plan to the Project's Quality Control/Quality Assurance Manager for review and approval. This plan shall outline the quality practices that the subcontractor will implement to meet the quality requirements of this project. The plan shall also designate the subcontractor's point of contact for all quality related issues. Subcontractor shall utilize only pre-approved manufacturers and installers for all work in this scope. Subcontractor will inform the QA/QC Manager of all inspections, tests and off- site inspection dates scheduled for the project in a timely manner.
9. Refer to individual Bid Package Scopes for additional specific requirements.

Allowances:

1. Allowance as may be contained in specific Bid Package Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. **An allowance shall include all costs including overhead, profit (mark-up) and exclude performance and payment bond costs.** The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item.
2. Utilization of any allowance shall be documented by **daily** documentation as directed by the Construction Manager.
3. Refer to individual Bid Package Scopes for specific requirements.

Unit Prices:

1. Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the Work. Unit prices for completed in place Work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit (10%) and other related incidentals and remain firm and in effect for the duration of the contract. CM has the right to negotiate unit price rates with subcontractor prior to awarding subcontract.
2. Refer to individual Bid Package Scopes for specific requirements.

Alternates:

1. Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed.
2. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives.
3. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.
4. Refer to individual Bid Package Scopes for additional specific requirements.

END OF SECTION

Bid Package Number: BP-01A**Bid Package Name:** General Trades/Final Cleaning**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Complete all General Trades and Final Cleaning work as outlined in **Division 01 General Requirements and specification section 017700 Closeout Procedures**, respectively, for Work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Coordination of work with other trades prior to starting work onsite with supervisor/lead person for the job.
3. Construction Manager Directed Labor to be included in Bid
 - Phase 1: Provide a Carpenter (60) hours per week (1 worker per day) for the duration of phase 1, (60) Carpenter Helper hours per week (1 worker per day) for the duration of phase 1, and (60) Laborer hours per week (1 worker per day) for the duration of phase 1.
 - Phase 2 and 3: (45) Carpenter hours per week (1 worker per day) for the duration of each phase, (45) Carpenter Helper hours per week (1 worker per day) for the duration of each phase, and (45) Laborer hours per week (1 worker per day) for the duration of each phase to perform ongoing miscellaneous carpentry, building temporary walls, relocating temporary walls, building protection installation and maintenance, cleanup duties and unloading of materials as directed by the Construction Manager (this trade shall provide one carpenter (with 5 years carpentry experience), one carpenter's helper (with 2 years' experience), and one laborer class workers with tools as part of their workforce. The Construction Manager's representative may ask that a staff which demonstrates uncooperative actions be removed from the project with 24 hours written notice to Subcontractor. The Construction Manager's representative shall give 24 hour notice for discretionary labor needs.
4. Verification of all hours shall be signed off by the Barnhill Project Superintendent on a weekly basis. This sheet shall be included with each pay application for the time period being billed justifying the hours worked.
5. Provide and maintain forklift with 50 foot extension and 10,000 pound capacity for the duration of the project (all three phases), this includes fuel for the forklift. The Construction Manager's representative shall have scheduling control over access and use of this equipment. Extended use shall be approved by the CM Representative prior to use. All effort shall be applied to identify and schedule the use of this equipment during weekly coordination meetings.
6. Onsite parking will not be allowed. Offsite parking is the responsibility of each individual contractor.
7. Provide brooms, rakes, squeegees, shovels, hoses, floor sweeping compound, trash bags, and trash carts for trash removal to dumpsters, etc. as necessary tools for the labor man-hours above.
8. This Subcontractor shall provide all tools for carpenters and labors to use. These tools include but are not limited to, circular saw, sawzall/reciprocating saw, hammer drill, large electric chipping hammer, gas powered quickie saw, electric power drill, electric grinder, and battery powered cordless drill. All tools noted above should be provided with full accessories for use for the duration of the project. Accessories include but not

- limited to saw blades for each type of saw, drill bits, demo bits, cutting wheels, grinding wheels, etc. Replacement of damaged tools/equipment is the responsibility of this subcontractor.
9. The carpenter class workers are to be provided with general carpentry tools including, but not limited to: tool belts, hammers, tape measures, speed and framing squares, 4' and 6' levels, basic hand tools, pliers, screwdrivers, etc.
 10. Include material required to construct twenty (10) temp door lockups out of plywood and 2x4's. Lockups will serve as temp doors for electrical, mechanical, and other rooms determined by the Construction Manager. Include hardware (hinges and hasp locks) for each lock-up room.
 11. Provide, install, and maintain ten (10), ten pound fire extinguishers for each phase of work. Fire extinguishers shall be mounted to the wall throughout the building in locations designated by the Construction Manager. When directed by the Construction Manager, this Subcontractor shall remove and relocate the fire extinguishers.
 12. This Subcontractor shall be responsible for installing and maintaining temporary signage throughout each building, and onsite for each phase of construction. Temporary signage will be provide by others.
 13. Include weekly cleaning of Construction Manager on site construction office.
 14. Existing windows will be removed by the Demolition Contractor. This Scope of Work shall include all labor and material to provide 2x4 temporary handrails at each opening, for each building, and each phase of work. Handrails shall have a top rail, mid rail, and toe kick (where applicable). Install, and remove guard rails as directed by the Construction Manager. Include all fasteners, nails, screws, etc. to construct guard rails. All guard rails provided by this Contractor shall meet OSHA requirements.
 15. The Demolition Contractor will install plastic weather protection over the windows that are removed. This Subcontractor is responsible for maintenance/repair/replacement (as needed) of temporary window protection until the point that new windows are ready to be installed.
 16. Include a minimum of 1" thick OSB board, on top of 1" thick rigid foam sheathing to be installed under the Dumpster to protect the existing hardscape. Include provisions for replacement protection material, and maintenance for the duration of each phase of work. For bid purposes assume protection material for the footprint of a thirty yard dumpster.
 17. Remove ALL temporary protection, protective coverings, tags, and labels that are not permanent on all building elements. Do not remove any fire rated labels. In the event that this happens, it will be the responsibility of this Subcontractor to rectify.
 18. This Contractor shall include an additional two hundred man hours for a laborer, for use as directed by the Construction Manager.
 19. Clean ALL transparent materials, including mirrors, and both sides of glass in doors and windows.
 20. Clean exposed exterior and interior hard surfaced finishes to a condition that is free of paint splatters, grease, dirt, dust, stains, films, finger smudges, and other marks, soiling, and foreign matter. Restore reflective surfaces to their original condition.
 21. Wipe surfaces of mechanical and electrical equipment. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
 22. Clean the site, including landscape development areas, rubbish, litter, and other foreign substances. Sweep paved areas broom clean, remove stains spills, and other foreign deposits. Provide pressure washer for final cleaning of exterior site and building elements.
 23. Rake grounds that are neither paved nor planted to a smooth, even-textured surface.
 24. Provide cleaning of all elements of the project, including but not limited to: All ceramic and porcelain hard tile including grout joints, vinyl tile, carpet, painted and exposed concrete floors, toilet accessories, doors, frames and hardware, and plumbing fixtures.
 25. Vacuum carpet and similar soft surfaces, removing debris and excess nap; steam or shampoo any visible soil or stains, adhesive, foreign, material, etc.. Adhere to manufacturers written cleaning instructions. This cleaning shall be included for all new, and existing carpet.
 26. Contract includes cleaning of all elements of the project as detailed in the Project Manual and including but is not limited to: Damp mopping of all floor surfaces, all hard tile, carpet, VCT, concrete floors, slate, baseboards, base, walls, toilet partitions, toilet accessories, plumbing fixtures, scrub and clean all ceramic tile, clean all interior and exterior of all casework, shelves, countertops, window sills, ledgers, doors, door frames,

- door hardware, stairwells, glass and window frames/trim/etc. – interior and exterior, mechanical rooms/janitor closets, fire extinguisher cabinets, window blinds, light fixtures, handrails, and signage (interior and exterior).
27. Include all required rough and final cleaning of the entire building prior to turnover of the project. To further clarify the work of this scope should provide three (3) cleanings as follows: (1) preliminary rough cleaning prior to the punch list, (1) final cleaning once all work is substantially complete and (1) final cleaning after all subcontractors are out of the building as directed by CM.
 28. Include multiple mobilizations are required to facilitate construction progress and/or as directed by General Contractor.
 29. Provide all necessary cleaning materials and equipment to complete this work for all three phases of construction.

Allowance:

Allowances may be contained in the Contract Scope(s) shall be included as apart of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit and cannot be billed against without supporting backup.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. List the unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

1. N/A

Exclusions to this Scope of Work:

1. N/A

END OF SECTION

Bid Package Number: BP-02C**Bid Package Name:** Unit Pavers**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Unit Paver work, as outlined in **Division 1 General Requirements, and the following Specification Sections as relates to this scope of work: 024119 Selective Structure Demolition, 042000 Unit Masonry,** respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Subcontractor shall remove pavers for the installation of the new fire main at the south side of Garinger. See Sheet C-200 for the new underground fire main. Removed pavers shall be stored, and reinstalled once utility work required to install the fire main is complete.
3. Subcontractor shall remove pavers for the installation of the new 6" D.I.P. to the Fire Department Connection at Denny. See Sheet C-200 for the routing. Removed pavers shall be stored, and reinstalled once utility work required to install the fire main is complete.
4. Subcontractor shall remove pavers for the installation of the new electrical service. See Sheet E-009 for the routing of the new electrical work. Removed pavers shall be stored, and reinstalled once utility work required to install the fire main is complete.
5. Backfill of site utility work will be by others. Preparation of subgrade, crushed gravel, geotextile soil separator, granite screenings, compaction, concrete edge, and replacement of pavers per paving details, plans, and specifications is included in this Scope of Work.
6. Removal and replacement of brick pavers may need to take place after regular working hours, on weekends, at night time, or on holidays. Overtime rates for this work shall be included in the base bid.
7. The pattern and width of the walkway shall match the existing walkway, and be consistent with UNCC standard installation detail.
8. Provide final cleaning of pavers including removal of mortar, grout, sealants, stains, discoloration, etc. to achieve Owner acceptance.
9. Subcontractor is responsible for protection of surrounding finish products during installation and cleaning operations. Cleaning must be completed prior to demobilizing from each area of Work.
10. Subcontractor shall not clean tools or dispose of stonework mortars, grouts, etc., into the building drainage or sanitary systems.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. Remove and replace damaged pavers identified by the Construction Manager. Include \$7,500.00 Pavers to match University Standard paver type and finish.

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-02E**Bid Package Name:** Landscaping**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Landscaping work, as outlined in **Division 1 General Requirements, etc., and the following Specification Sections as relates to this scope of work:**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. See note 102 on Sheet AS101. Include an allowance of \$5,000.00 per building to remove, replant, mow, and prune existing landscaping.

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-02F**Bid Package Name:** Slab Stabilization (Chemical Grout)**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Slab Stabilization work, as outlined in **Division 00 Procurement and Contracting Requirements, Division 01 General Requirements, and the following Specification Sections as it applies to this scope of work: ECS Subsurface Explorations,** respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Provide complete slab stabilization shown on sheet S-101E.
3. Include a full survey of the existing slab to identify location of voids beneath slab on grade using Ground Penetrating Radar, and destructive core removals. Submit survey results at the completion of the survey to the Construction Manager.
4. Include locating all of the existing under slab plumbing, electrical, mechanical, conduits, pipes, utilities, etc., prior to any destructive core removal, or drilling for injection points. All under slab rough in shall be clearly marked on the slab on grade by this Contractor. Submit plan that shows the findings of any existing M.E.P. under slab functions to the Construction Manager prior to starting work. Clear coat slab markings once complete.
5. Repair all defects, crack, and holes in the existing slab on grade prior to beginning work. Field conditions may be encountered during construction that are not clearly shown in the construction documents. These conditions may require repair of defects in the slab on grade that are not specifically shown on the drawings, but are required to meet the design intent. Include provisions for such work as would usually be expected in an existing building of this age and type in the base bid.
6. Existing finish floor will be removed by others prior to starting work.
7. For bid purposes Subcontractor shall assume a minimum of 1 inch deep grout for the entire Winningham building footprint.
8. While core drilling for injection points, this Subcontractor shall take all necessary procedures to avoid damaged to concrete reinforcement or any embedded item in the slab on grade. Prior to cutting, drilling, or installing anchors, locate concrete reinforcing using nondestructive methods.
9. Subcontractor is responsible for all concrete coring and cutting to complete this scope of work, including the removal and disposal of concrete (dumpster provided by others).
10. The slab stabilization repair shall only fill voids beneath the slab, the slab is not to be lifted. Any damage to the existing building elements resulting from the slab on grade being lifted shall be repaired or replaced at the expense of this Contractor.
11. Base bid shall include using the specified 2 component high density expanding foam polyurethane resin system with a minimum compressive strength of 60 PSI.
12. Any residual chemical grout shall be removed by this Contractor.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. Rate per cubic foot of 2-component high density expanding polyurethane resin foam.

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-02K**Bid Package Name:** Abatement & Demolition**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Hazardous Material Removal, Asbestos Removal, Demolition, and Selective Structure Demolition work, as outlined in **Division 00 Procurement and Contracting Requirements, Division 01 General Requirements, and the following Specification Sections as it applies to this scope of work: 024100 Demolition, 024119 Selective Structure Demolition, ECS Asbestos Removal Plans and Specifications, 017419 Construction Waste Management and Disposal**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. This Contractor shall furnish and is responsible for all costs including, but not limited to: permit fees, containment preparation, labor, materials, services, insurance, bonding, and equipment necessary to carry out the abatement operations and disposal of all asbestos material in accordance with the Project Documents, the EPA and OSHA regulations, and any applicable state and local government regulations.
3. Include all costs associated with employee monitoring to meet the OSHA requirements.
4. Include all Hazardous Material abatement, Asbestos Abatement and demolition required to complete this scope of work. Adhere to all rules and regulations federal, local, and state.
5. Obtain all required permits. Submission of permitting timeliness shall be such as not to delay start of work upon issuance of a Notice to Proceed.
6. This contractor is responsible for all costs, including additional visits, should the designer and/or the industrial hygiene firm determine that the asbestos abatement failed final inspection.
7. Subcontractor is responsible for all clearance testing after abatement.
8. Subcontractor understands that multiple mobilizations are required for each phase of construction and each building and has included all costs.
9. It is expected that this bidding/awarded subcontractor has visited the site and made themselves aware of the existing conditions and familiarized themselves with the building. This Subcontractor shall visit site prior to pricing their bid to determine the level of abatement and demolition required and include all necessary pricing in their bid.
10. All personnel shall have required credentials as defined in the OSHA asbestos standards, and by the Health Hazards Control Unit.
11. All pre-job and post-job submittals listed in the Project Documents.

12. Include negative pressure system per Project Documents.
13. Before any work begins, all work area preparation, isolation, decontamination units, barriers, etc., per
14. Subcontractor understands that multiple crews, supervisors, shifts, and equipment are required to start and complete work in the building(s) simultaneously in accordance with the schedule for all phases. Each phase of construction will require first floor, and second floor work to occur simultaneously. Base bid should include separate crews working on both floors at the same time with adequate man power for each floor.
15. Demolition drawings are intended to provide a general indication of work to be removed. These drawings do not indicate each and every item of demolition and abatement required to complete this scope of work. Demolition shall be performed as necessary to complete the work, regardless of whether the work is specifically distinguished on the drawings. Unless a demolition note is specifically noted to be limited to a specific item of work, it shall be assumed that the note applies to the entire area. Quantities of work, if indicated, are estimates. No claim for a change in the contract will be considered unless the actual scope of work differs substantially from what is indicated.
16. Perform architectural demolition as is necessary to complete the work shown on ALL Project Documents.
17. Contractor shall secure all required permits and permissions for the removal of hazardous material as soon as possible immediately upon receipt of Letter of Intent from the Construction Manager.
18. This subcontractor shall include the appropriate manpower and supervision as needed to complete this work in this time frame and not attempt to perform this work with a skeleton crew. This subcontractor will bring a schedule showing their plan to achieve this schedule to the post bid scope review meeting.
19. ALL drawings are to be carefully reviewed as ALL drawings are included in this subcontractor as relates to demolition. It will not be acceptable post bid to request a change order for demo items found on the architectural, structural, or other sheets that pertain to demolition. ALL are to be reviewed and ALL are included in this subcontract as relates to this scope.
20. Include the removal and disposal of all existing windows noted to be removed. Immediately after a window is removed, this Contractor shall install a continuous sheet of plastic over the opening to ensure a weather tight seal to the outside elements. Removal of plastic temporary windows will be by others.
21. Coordination of work with other trades prior to starting work onsite with supervisor/lead person for the job. This scope shall coordinate all selective demolition as needed for the installation of new work for the duration of the project.
22. Include removal of lead based paint, and building elements that contain lead based paint.
23. Demo and properly dispose of all items listed on the drawings and specifications that are not listed to be salvaged for later use.
24. Mechanical, Electrical, and Plumbing contractors to de-energize power, decommission HVAC systems, and drain systems prior to building demolition. This package is responsible to start demo activities only after all MEP make safe work is complete.
25. This contractor shall coordinate with the Owner and Construction Manager and turn over any existing equipment determined to be in good working order or any noted equipment the Owner has designated to be remitted to them, or to be reused. Any equipment turned over to the Owner shall be carefully removed so not to damage and shall be stored and protected on site until complete turn over to Owner. All equipment shall be cleaned, tagged and inventory list provided.
26. Contractor to take care in protecting adjacent surfaces during demolition work. Contractor shall be held responsible for repairing any damage caused to the site, hardscape, landscaping, building elements, and work that is to remain in place.

27. Protect areas of existing hardscape under all dumpsters and hazardous waste containers. Include a minimum of 1” thick OSB board, on top of 1” thick rigid foam sheathing for protection.
28. While offloading, loading, operating, or parking any equipment, or lifts on existing hardscape, this Contractor shall protect the hardscaping under and around the equipment or lift. Include a minimum of 1” thick OSB board, on top of 1” thick rigid foam sheathing for protection.
29. Contractor to coordinate selective demolition of work at perimeter of jobsite to maintain security of jobsite with CM’s representative, i.e. maintain existing doors and fencing to provide a secure job site perimeter.
30. Remove existing concrete eyebrow on the East and West elevation of Denny. Welded connection shall be cut, and ground smooth, and flush with the existing concrete. Concrete eyebrows that are cut shall be removed in a controlled manner. Submit specific demolition plan to the Construction Manager for this work.
31. Remove the existing ceilings in all spaces indicated to receive new ceilings. See the reflected ceiling plans for details and locations.
32. Remove and dispose of all chalk boards and coat racks.
33. All applicable UNC Charlotte, local, and State ordinances /OSHA/etc. shall be adhered to.
34. Contractor is required to provide noise and dust control measures required in the Project Documents at all times while performing work onsite.
35. Include a trash Chute for removal of debris from level 2, for all three phases of construction. This trash Chute shall be installed and maintained by this Contractor. Remove and relocate trash Chute as directed by Construction Manager. This chute shall remain onsite even after the demolition portion of this Scope of work is complete, and will be used by all trades during the course of construction. Include provisions for the repair of damaged chute, and repair of wear and tear a trash chute will experience for a project of this type and duration.
36. Include removal and disposal of all existing VCT and walls base, carpet and wall base, toilet partitions, toilet accessories, stair tread flooring, acoustical wall panels, fixed seating etc. that is required to be removed to meet the design intent.
37. This Contractor shall include an additional two hundred man hours for discretionary use by the Construction Manager for additional demolition if needed.
38. Include the costs for additional abatement and removal of four hundred lineal feet of asbestos containing material not identified in the asbestos report.
39. Contractor to provide own dumpsters and debris hall off. No material (not stored in dumpsters) will be allowed to be stored onsite overnight. Due to site restraints contractor shall provide a co-mingled dumpster as there is no room for multiple dumpsters.
40. Contractor to provide adequate dumpsters for removal of hazardous material from site. Supply appropriate documentation as required for disposal of hazardous materials. Coordinate containers, on site storage and disposal of hazardous waste with Construction Manager.
41. Sufficient adhesive/glue removal is required after abatement and demo activities are complete. It will not be acceptable to leave adhesive/glue residue for others to remove.
42. Include removal and disposal of any door frames shown to be removed.
43. Miscellaneous items which are not specifically shown on the drawings shall be removed in renovated areas, unless otherwise indicated or directed by the Owner.
44. Field conditions may be encountered during construction that are not clearly shown in the construction documents. These conditions may require additional work that is not specifically shown on the drawings, but are required to meet the design intent, or keep existing systems in operation. Include provisions for such work as would usually be expected in an existing building of this age and type in the base bid.
45. Demo all existing light fixtures and dispose of light ballasts, transformers, and florescent light tubes. All florescent light tubes must be properly packaged and disposed of as a “universal waste” in accordance with

EPA and State guidelines. Coordinate with Electrical Contractor prior to starting this work. Some electrical fixtures are scheduled to be removed and reused. See plans for details and locations.

46. Base bid shall include the recommended lamp management storage principles.
47. Include the complete demolition and removal of all wall tile, floor tile, mud beds and grout.
48. Include the removal of portions of existing CMU walls to accommodate for new door and frame.
49. Removal of all existing walls scheduled to be removed is included. Reinforcing shall be cut flush with the slab after wall is removed.
50. All HVAC demolition will be by the Mechanical Contractor.
51. All Plumbing demolition will be by the Plumbing Contractor, including all fixtures and piping.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager Waste Management Plan within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowance as may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit and cannot be billed against without supporting backup.

1. An allowance for abatement and removal of 200 LF of asbestos ductwork/piping beneath the slab of the existing buildings.

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

- Alternate 1:** See Specification Section 012300, and plans for Alt 01. Phase 1 Denny Building reclad exterior walls with brick. The scope of work for this alternate shall include the removal of the complete existing precast exterior wall system on the Denny Building, unless specifically noted to keep selected portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. A steel stud and associated wall system components to result in a brick recladding brick system for the exterior of the Denny building.
- Alternate 2:** See Specification Section 012300, and plans for Alt 01 A. Phase 1 Denny Building Alternate Method of Construction to reclad exterior walls. The scope of work for this alternate shall include the keeping the complete existing precast exterior wall system on the Denny Building, unless specifically noted to remove portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. The existing precast will be integrated into other wall system components to result in a brick recladding brick system for the exterior of the Denny building. Masonry shop drawings submitted for this alternate to indicate masonry anchors used to attach the brick ties in a random pattern and attached to the existing precast with a minimum embed, so not to damage the existing precast panels during recladding installation and adequate pullout strength for the masonry recladding.
- Alternate 3:** See Specification Section 012300, and plans for Alt 07A Remove existing corridor VCT flooring and wall base on the second floor of Denny building and provide new corridor VCT flooring and wall base on the second floor of Denny building to accommodate corridor way finding.
- Alternate 4:** See Specification Section 012300, and plans for Alt 07B Remove existing flooring (carpet and/or VCT flooring, and wall base) and install new flooring (carpet, vct, and wall base) as noted by Alternate 7B on the Drawings & Finish Schedule.
- Alternate 5:** See Specification Section 012300, and plans for Alt 07C Remove existing flooring (carpet and/or VCT flooring, and wall base) and install new flooring (carpet, vct, and wall base) as noted by Alternate 7C on the Drawings & Finish Schedule.

Exclusions to this Scope of Work:

1. Recovering Freon.
2. Plumbing demolition.
3. HVAC demolition.

Bid Package Number: BP-04A**Bid Package Name:** Turnkey Masonry**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Masonry work, as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 040513 Masonry Mortaring, 040531 Masonry Tuck-Pointing, 042000 Unit Masonry, 024119 Selective Structure Demolition, 076200 Sheet Metal Flashing and Trim**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. All block and brick, and brick regardless of size, shape, and location.
3. All new CMU partitions.
4. Prior to drilling for the installation of expansion anchors, threaded rod, fasteners, etc., locate embedded materials such as reinforcing steel, post tensioning cables, plumbing, and electrical conduits using ground penetrating radar. Submit plans showing locations of embedded items to the Construction Manager prior to commencing work. Any damage to existing concrete embedded items, caused by drilling, or cutting into the existing slab, shall be repaired or replaced at the expense of this Subcontractor.
5. Provide all reinforcement necessary for the support of masonry partitions, including rebar, misc. steel, rebar drilled & epoxied in concrete, etc.
6. See the Schedule of Deficiencies on sheet S-101E. This Contractor is responsible for items SR, and WC on the Schedule of Deficiencies.
7. Submit shoring plans for the temporary shoring of existing brick veneer required for Deficiency Item SR.
8. All saw cutting, demolition, removal, and disposal of the concrete slab on grade that is required to be removed to repair Deficiency Item SR is included in this Scope of Work. Dumpster for disposal of concrete will be provided by others. Removal of subgrade, and backfill is included.
9. Provide and install all galvanized steel angles, threaded rods, epoxy, etc. required for Deficiency Item SR.
10. All tuck-point, and re-pointing is included. See Schedule of Deficiencies, detail 6 on sheet S-801, and specifications for additional details. This includes the removal of mortar/grout/brick, dust, debris, and all prep work required to install new mortar. New mortar shall be installed per the tuck-pointing procedures noted in the contract documents by this Contractor.
11. Include all bolts, expansion anchors, clip angles, fasteners, etc., for masonry partitions.
12. Include all masonry cleaning per Construction Documents.
13. Include the cost for the complete removal, cleanup, and repair of masonry for 4 test areas. See the testing section in Specification Section 040531 Masonry Tuck-Pointing for details.
14. Include all mockups, samples, sample panels, etc.
15. All protection of masonry during construction, stain prevention, and quality control.
16. All grout to fill masonry cells/cavities.

17. Inspect finished walls after installation. Any chipped, cracked, or defective units shall be replaced at no additional cost.
18. All masonry wall reinforcing/anchors/ masonry ties are to be furnished and installed by this contractor.
19. This Contractor shall include an additional infill of one hundred openings, two feet by two feet in CMU walls with UL assembly System No. C-AJ-0041.
20. Installation of all hollow metal frames in masonry walls (frames provided by others). Include offloading, handling, stocking, unpacking and grouting of hollow metal frames in masonry walls.
21. All necessary flashings/weeps integral with masonry.
22. Include all brick repair work as defined throughout the Construction Documents.
23. Block out for all accessories that are recessed in walls as walls progress.
24. All control joint materials, and all caulking of masonry to masonry.
25. This Contractor shall include an additional infill one hundred openings, two feet by two feet, in CMU walls to match existing CMU wall
26. All bracing of walls, shoring, staging and hoisting required to complete this Scope of Work.
27. Hot and cold weather measures as necessary to facilitate completion of this work. This include submitting these plans for approval to the design team prior to implementing.
28. All grout, CMU, reinforcing, masonry joints, drips, epoxy, bullnose, etc., required for the new walls at electric water coolers. See sheet A-403, and all other project documents for details. Include demo required to tooth courses per detail 8 on A-403.
29. Provide all mechanical heating units with the approval by Construction Manager. Provide a 24 hour fire watch when heating units are in use and provide the name of the competent person who will be acting as a fire watch.
30. This Contractor shall include an additional one hundred and fifty man hours for masonry associated work as directed by the Construction Manager. These additional man hours shall be broken out and clearly identified on the Schedule of Values.
31. Removal of all mortar from concrete floors.
32. Provide all cutting of masonry for pipes, chases, ductwork, conduit, sleeves and grounds. Coordinate openings in masonry partitions with the MEP trades. This includes, but is not limited to, installing sleeved openings for large pipe/conduit and box-outs for ductwork.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. Tuck-Pointing Brick Masonry per Linear Foot. Remove existing deteriorated/cracked mortar joints and install new re-pointing mortar as shown on detail 7/W701.
2. Interior Masonry Wall Repair “WC” per Linear Foot. Tuck-point failed mortar joints per detail 6/S801.
3. Shelf Angle Replacement: Remove and dispose of existing corroded shelf angles where identified in the field and install new galvanized shelf angles with epoxy imbedded bolts as shown on detail 4/W703.
4. Shelf Angle Replacement Shims: Install new galvanized shim plates and weld to top and bottom of new shelf angles as shown on detail 4/W703.

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: See Specification Section 012300, and plans for Alt 01. Phase 1 Denny Building reclad exterior walls with brick. The scope of work for this alternate shall include the removal of the complete existing precast exterior wall system on the Denny Building, unless specifically noted to keep selected portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. A steel stud and associated wall system components to result in a brick recladding brick system for the exterior of the Denny building. For this alternate, this Subcontractor shall include all: Demo of existing CMU, Brick Veneer, rigid and perimeter, insulation, 4” CMU, mortar nets, through wall flashing, drip edge, end dams, weeps, grout fill, masonry ties, etc. Scope of work items for the base bid apply to this alternate.

Alternate 2: See Specification Section 012300, and plans for Alt 01 A. Phase 1 Denny Building Alternate Method of Construction to reclad exterior walls. The scope of work for this alternate shall include the keeping the complete existing precast exterior wall system on the Denny Building, unless specifically noted to remove portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. The existing precast will be integrated into other wall system components to result in a brick recladding brick system for the exterior of the Denny building. Masonry shop drawings submitted for this alternate to indicate masonry anchors used to attach the brick ties in a random pattern and attached to the existing precast with a minimum embed, so not to damage the existing precast panels during recladding installation and adequate pullout strength for the masonry recladding. For this alternate, this Subcontractor shall include all: Brick Veneer, rigid and perimeter, insulation, 4” CMU, mortar nets, through wall flashing, drip edge, end dams, weeps, grout fill, masonry ties, etc.

Alternate 3: See Specification Section 012300, and plans for Alt 03 Brick Panel through Wall Flashing Repairs (Macy, Barnard, Garinger, Winningham) The scope of work for this alternate shall include the removal of the existing brick masonry, installation of a new through wall flashing system,

and installation of new brick masonry above the shelf angles along the bottom of the brick panels. Contractor shall provide in the bid the lump sum price to perform this work. (Replacement of deteriorated shelf angles and installation of shim plates will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost. For this alternate, this Subcontractor shall include: removal of existing brick masonry, removal of existing vertical dowels, installation of new shelf angle, installation of new brick masonry, and new brick ties.

Alternate 4: See Specification Section 012300, and plans for Alt 04 Brick Panel Repairs (Macy, Barnard, Garinger, Winningham). The scope of work for this alternate shall include the cleaning and installation of a clear water repellent sealer over of all brick masonry surfaces. The work shall also include removal of the existing and installation of a new cap flashing and sealants at the top of the panels. Contractor shall provide in the bid the lump sum price to perform this work. (Tuckpointing of deteriorated mortar joints will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost.

Alternate 5: Exterior Face Brick Face (Preferred Alternate) Brick to be Morrocroft Special #02-79-1 manufactured by Hanson Brick at www.hansonbrick.com Installation shall comply with UNCC Std. Spec S02525.

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-05B**Bid Package Name:** Miscellaneous Steel**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Miscellaneous Steel work as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 024100 Demolition, 051200 Structural Steel, 055213 Pipe and Tube Railings**, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Provide and install all new wall mounted handrails, stair railings, and stair guard rails shown in the Project Documents.
3. Remove existing handrails in stairs in buildings Denny, and Winningham. Demo shall only occur after new rails have been field measured, fabricated, and are ready to be installed. If new handrails are not provided immediately after removal of existing hand rails, this Contractor is responsible for providing temporary handrails that meet OSHA requirements.
4. The existing handrail in Macy contains lead based paint. This hand rail will be removed by the demolition and abatement Contractor. Include the new guardrail and handrail for these stairs.
5. Provide a fire watch at all times while welding, or using a torch.
6. Ensure all railings are in compliance with ADA Standards for accessible design.
7. Conceal anchor bolts wherever possible. Where not concealed, use flush countersunk fastenings.
8. Shop drawings shall indicate all profiles, sizes, connection attachments, anchorage, size and type of fasteners, and accessories. Shop drawings shall be signed and sealed by a professional engineer licensed in the state of North Carolina.
9. All prep work to the existing steel shown to support new handrails is included in this Scope of Work. Pre work includes but is not limited to grinding, patching, striping steel items to bare metal where site welding is required, and cleaning surfaces.
10. All interior pipe handrails and guard rails are to be shop primed and field painted. (Field painting by others)
11. Include all bolts expansion anchors, steel plates, and accessories required to complete this Scope of Work per the Project Documents.
12. Ensure all new work is installed within the allowable tolerances noted in the Project Documents. Any new work found to be out of tolerance shall be repaired or replaced at the expense of this Contractor.
13. See sheet AS101 for existing handrails that need to be removed and replaced. Include the removal and replacement of ramp handrails. Grind, fill, and patch cores of the existing handrails posts with non-shrink grout. See detail 1/AS101 for new ramp handrail.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-07A**Bid Package Name:** Caulking & Waterproofing**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Thermal and Moisture Protection, Elastomeric Coatings, and Polymer Modified Cementitious Coating work, as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 070533 Fire and Smoke Assembly, , Fluid Applied Waterproofing, 071900 Clear Water-Repellant Sealer, 078400 Firestopping, 079200 Joint Sealants, 099653 Exterior Elastomeric Coating System, 099726 Polymer Modified Cementitious Coating**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. See sheet S-101E for the Schedule of Deficiencies. Repair type C2 is included in this Scope of Work. All saw cutting shall be done using a wet saw. Remove cut concrete and dispose into a dumpster provided by the Construction Manager. Ensure that edges of joints are cleanly taped prior to installing epoxy. Remove tape after epoxy joint filler is installed. Any residual epoxy on the slab on grade, surrounding finishes, or building elements shall be removed by this Contractor. Sandblast each vertical side of saw cut groove, and clean with a water blaster once sand blasting is complete. Blow air dry prior to installing epoxy. Provide shop vacuums to vacuum excess water during the water blasting process. Plastic enclosures shall be built to confine the sandblast material, prior to commencing any sandblasting. Clean surrounding areas, and work areas once work is complete so that no sandblast material or debris exists.
3. See sheet A-504 for partition wall sections and details. This Contractor shall provide all mineral wool, and fire stopping per UL HW-D-1004 at the top of all rated partitions.
4. Include all acoustic insulation and acoustic sealant at the top of all non-rated partitions.
5. This Contractor shall remove all existing sealant on the exterior of the buildings and install new sealant with backer rod, or bonding agent. Remove all existing sealant by cutting, scraping, grinding, or other means. The surface shall be cleaned sufficiently to remove residue in order that the new sealant can achieve a watertight, warrantable, bond to the substrate.
6. This Contractor shall take care in protecting adjacent surfaces during work, and will be held responsible for repairing or replacing any damage caused to the site, hardscape, landscaping, building elements, and work that is to remain in place.
7. Prime bonding surfaces with approved manufactures primer. Bond shall be demonstrated and tested periodically during the installation by performing adhesion tests.
8. All prep work to ensure a fully warrantable, bonded application, for all sealants, epoxy, fire stopping, waterproofing, etc., is included in this Scope of Work.
9. Existing welded connections to precast eyebrows will be cut and removed by others. Include all prep work, grinding, cleaning, etc., required at embed plates. Include all primer, coatings, and sealants.

10. All elastomeric coating systems, and polymer modified cementitious coatings are included in this Scope of Work.
11. Caulking of masonry expansion control joints interior and exterior, construction joints in cast in place concrete, precast concrete, etc. Caulking of any item requiring backer rod.
12. Caulking of exterior door frames/louvers (both sides).
13. Coordination of work with other trades prior to starting work onsite with supervisor/lead person for the job.
14. Included is all masking and protection of existing Work. Excess material shall be removed with products and methods which cause no damage to finished surfaces. Subcontractor shall remove all protection materials and shall be responsible for all costs should protection materials damage materials by others upon removal.
15. Include necessary mobilizations and material/equipment staging relocations as required to facilitate construction progress and/or as directed by Construction Manager.
16. This Contractor shall include an additional one hundred man hours for joint sealant work as directed by the Construction Manager.
17. All manufacture testing, field testing, and mockups are included per the Project Documents.
18. All interior masonry wall control, expansion, top of wall joints, etc., and where masonry abuts concrete or CMU.
19. All scaffold or lifts and equipment required to complete this scope of work are included.
20. While operating any equipment or lifts on the existing hardscape, this Contractor shall protect the hardscaping under and around the equipment or lift. For protection include a minimum of 1” thick OSB board, on top of 1” thick rigid foam sheathing.
21. It is the responsibility of this Subcontractor to verify compatibility of all sealants with adjacent building elements, finishes, coatings, surfaces, etc. Surface preparation and barrier coats as required to achieve compatibility are part of this Scope.
22. Subcontractor is aware that custom and multiple colors will be required for Work of this Scope to match substrate colors in accordance with Architect’s approved color selections for this scope of work.
23. Multiple mobilizations as necessary to facilitate each phase of work and construction progress.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor’s project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor’s close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. Rate per linear foot of Slab Repair “C2”: Route and seal crack with a semi-rigid epoxy joint filler per detail 4/S801.
2. Rate per SF of an elastomeric coating over the exposed face of the concrete spandrel beams.
3. Rate per SF for the repair of spalled concrete on the spandrel beams.

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: See Specification Section 012300, and plans for Alt 01. Phase 1 Denny Building reclad exterior walls with brick. The scope of work for this alternate shall include the removal of the complete existing precast exterior wall system on the Denny Building, unless specifically noted to keep selected portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. A steel stud and associated wall system components to result in a brick recladding brick system for the exterior of the Denny building.

Alternate 2: See Specification Section 012300, and plans for Alt 01 A. Phase 1 Denny Building Alternate Method of Construction to reclad exterior walls. The scope of work for this alternate shall include the keeping the complete existing precast exterior wall system on the Denny Building, unless specifically noted to remove portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. The existing precast will be integrated into other wall system components to result in a brick recladding brick system for the exterior of the Denny building. Masonry shop drawings submitted for this alternate to indicate masonry anchors used to attach the brick ties in a random pattern and attached to the existing precast with a minimum embed, so not to damage the existing precast panels during recladding installation and adequate pullout strength for the masonry recladding.

Alternate 3: See Specification Section 012300, and plans for Alt 03 Brick Panel through Wall Flashing Repairs (Macy, Barnard, Garinger, Winningham). The scope of work for this alternate shall include the removal of the existing brick masonry, installation of a new through wall flashing system, and installation of new brick masonry above the shelf angles along the bottom of the brick panels. Contractor shall provide in the bid the lump sum price to perform this work. (Replacement of deteriorated shelf angles and installation of shim plates will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost.

Alternate 4: See Specification Section 012300, and plans for Alt 04 Brick Panel Repairs (Macy, Barnard, Garinger, Winningham). The scope of work for this alternate shall include the cleaning and installation of a clear water repellent sealer over of all brick masonry surfaces. The work shall also

include removal of the existing and installation of a new cap flashing and sealants at the top of the panels. Contractor shall provide in the bid the lump sum price to perform this work. (Tuckpointing of deteriorated mortar joints will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost.

Alternate 5: See Specification Section 012300, and plans for Alt 05 Concrete Spall

Repairs/Elastomeric Coating at Spandrel Beams (Macy, Barnard, Garinger, Winningham). The scope of work for this alternate shall include the cleaning and installation of an elastomeric coating over the exposed face of the concrete spandrel beams. Contractor shall provide in the bid the lump sum price to perform this work. (Repair of spalled concrete on the spandrel beams will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost)

Alternate 6: See Specification Section 012300, and plans for Alt 06 Connector Building and Electrical Room (Denny) Repairs. The scope of work for this alternate shall include the cleaning and painting of the existing louvers. The work shall also include replacement of existing sealants. The work shall also include the cleaning and installation of an elastomeric coating over the exposed face of CMU and the concrete spandrel beams as appropriate. (Repair of spalled concrete on the spandrel beams will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost.

Alternate 7: See Specification Section 012300, and plans for Alt 08 Exterior Trash Enclosure Repairs. The scope of work for this alternate shall include the cleaning and painting of the existing walls, gates and other components for the exterior trash enclosures located in the breezeways. The work shall also include replacement of existing sealants. The work shall also include the cleaning and installation of an elastomeric coating over the exposed face of CMU and the concrete columns as appropriate. (Repair of spalled concrete on the columns will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost.

Alternate 8: See Specification Section 012300, and plans for Alt 09 Exterior Electrical Room South side of Denny Building. The scope of work for this alternate shall include the cleaning and painting of the existing walls, doors and other components for the exterior CMU wall located on the south side of Denny building located in the breezeway. The work shall also include surface prep for a smooth finish of the exterior CMU wall replacement of existing sealants. The work shall also include the cleaning and installation of an elastomeric coating over the exposed face of CMU. (Note this work is also included as part of Alt No 06, but is a separate scope under this alternate in the event Alternate 06 is not accepted.

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-08A**Bid Package Name:** Glazing and Windows**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Glazing, All Glass Entrances and Storefronts, and Aluminum Framed Store front work, as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 084126 All Glass Entrances and Storefronts, 085113 Aluminum Windows, 088000 Glazing, 087100 Door Hardware, 079200 Joint Sealants, Sheet Metal Flashing and Trim,** respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. All submittals, product data, shop drawings, samples, certificates, design data, and operation and maintenance data.
3. Include all glass materials, insulating glass units, glazing units, glazing compounds, glazing types as scheduled on contract drawings for complete system including, but not limited to; all sealants and caulking, cleaners, primers, gaskets, shims, setting blocks, and all other incidental items required for a complete and weather-tight and warrantable system required per Project Documents.
4. Furnish and install all all-glass entrances and storefront assemblies.
5. All aluminum framed storefronts with vision glass, and infill panels of metal and glass, including all required aluminum framing members, internal structural reinforcing, structural anchorage devices to building structure, factory and field testing, weather-stripping, fasteners and anchors, shims, spacers, etc.
6. This Subcontractor shall remove and relocate all existing storefronts, doors, door hardware, and associated equipment, for a fully functional exterior door(s). See renovation plans for the locations of the relocated storefront assembly. All preparation of the existing substrate/surroundings where the storefront is to be relocated to achieve a weather tight assembly is included.
7. All Quality Requirements per Specification Section 014000 are included in this Scope of Work.
8. Each phase of construction will require first floor, and second floor work to occur simultaneously. Base bid should include separate crews working on both floors at the same time with adequate man power for each floor.
9. Field measurements shall be taken at the earliest time possible. Include all expediting, and early procurement of shop drawings.
10. This Subcontractor is responsible for furnishing, handling, un-packaging, storage, protection, and installation of all hardware per specification section 087100 for doors included in this scope of work. Field cutting / fitting of thresholds and weather-stripping is included.
11. Material storage is limited. Store on site only necessary materials and equipment to facilitate 10 days of work. Include multiple material delivers for each phase of work. No materials or equipment shall be stored, or brought to the site without prior approval from the Construction Manager.

12. Existing windows will be removed by the demolition Subcontractor. BP-08A is fully responsible for all prep work at the existing openings, so that new sealant, frames, and glazing can be installed, level, plumb, weather tight, and fully warrantable.
13. Material and assemblies provided by this Subcontractor shall meet the performance requirements noted in the Construction Documents.
14. Provide all required sealant and backer rod at interior, and exterior of jambs, sills, heads, etc. All sealant beads are included in this Scope of Work.
15. All door stops for doors furnished by this Contractor shall be included.
16. It is the responsibility of this Subcontractor to verify the compatibility of all caulking and sealants provided under this agreement, with surrounding building elements, coatings, and finishes.
17. After existing windows are removed by the demolition subcontractor, temporary window protection will be installed by others. Prior to installation provided in this Scope of Work, this Subcontractor shall remove and dispose of temporary window protection into dumpster provided by Construction Manager. Temporary windows shall only be removed when permeant window and glass is ready to be installed. If a window or door frame is installed, and glass is not installed with it, this Subcontractor is responsible for providing temporary protection for the empty opening.
18. Include touch up for any damage to the factory applied finish of aluminum storefronts.
19. Include any and all concrete removal required to install swinging door hardware and fittings.
20. If it is the intent of this contractor to outsource the installation of this work then it is understood that it is still the sole responsibility of the awarded contractor for this package to properly “supervise” and “manage” this tiered sub and not leave it up to the Construction Manager to coordinate between the two.
21. Included is all masking and protection of existing Work. Excess material shall be removed with products and methods which cause no damage to finished surfaces. Subcontractor shall remove all protection materials and shall be responsible for all costs should protection materials damage materials by others upon removal.
22. Provide and install all sill flashing, drip edges, end dams, rear dams, jamb flashing, head flashing, etc.
23. Include fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of the thermal barrier.
24. Multiple mobilizations as required to facilitate construction progress for each phase of work.
25. Subcontractor has the responsibility to separate aluminum and other surfaces from sources of corrosion of electrolytic action at points of contact with dissimilar materials.
26. All finishes required per plans and specifications.
27. Provide glass and stops for all new interior door lites.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor’s project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor’s close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work; deleted work shall be calculated at ten percent (10%) less than the additive unit prices.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: See Specification Section 012300, and plans for Alt 01. Reclad exterior walls with Brick for the Phase 1 Denny Building. The scope of work for this alternate shall include the removal of the complete existing precast exterior wall system on the Denny Building, unless specifically noted to keep selected portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. A steel stud and associated wall system components to result in a brick recladding brick system for the exterior of the Denny building. This alternate will impact and change the exterior wall assembly around openings. Include any cost impacts for this alternate to the Scope of Work outlined above.

Alternate 2: See Specification Section 012300, and plans for Alt 01A. Alternate method of construction to reclad exterior walls for the Phase 1 Denny Building. The scope of work for this alternate shall include the keeping the complete existing precast exterior wall system on the Denny Building, unless specifically noted to remove portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. The existing precast will be integrated into other wall system components to result in a brick recladding brick system for the exterior of the Denny building. Masonry shop drawings submitted for this alternate to indicate masonry anchors used to attach the brick ties in a random pattern and attached to the existing precast with a minimum embed, so not to damage the existing precast panels during recladding installation and adequate pullout strength for the masonry recladding.. This alternate will impact and change the exterior wall assembly around openings. Include any cost impacts for this alternate to the Scope of Work outlined above.

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-08B**Bid Package Name:** Turnkey Doors Frames and Hardware**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Doors, Frames and Hardware work, as outlined in **Division 1 General Requirements and Specification Sections 081213 Hollow Metal Frames, 081416 Flush Wood Doors, 087100 Door Hardware**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Prior to demolition activities, this Contractor shall remove all interior wood doors, hardware, transoms, accessories systems and components. Remove all door hardware and components from wood doors Package, label, and protect removed door components, and store on site in a location specified by the Construction Manager.
3. Stack removed wood doors and transoms on dunnage, with protective coverings over, and in between each door.
4. Any doors, transoms, hardware, or components that are damaged, or lost during or after removal shall be replaced or repaired by this Contractor.
5. It is presumed that this bidding/awarded subcontractor has visited the site, and made themselves aware of the existing conditions, and familiarized themselves with the buildings prior to pricing the bid to determine the level of work required and include all necessary pricing in their bid.
6. Existing doors may be missing silencers, hinges, screws, and other door components. This Contractor shall furnish and install replacement door components for any interior doors that has damaged, or missing components.
7. After removal, completely refinish and refurbish all interior wood doors, transoms systems and components. Include all sanding, grinding, stripping, and removal of the existing door finish, sealants, paint, markings, etc. Wood filler, wood conditioner, and any and all prep work required prior to applying final finish coats is included.
8. All wood sealer, and varnish shall be applied in the number of coats, and finish required per University Standards, and project documents.
9. Use an existing door to provide a mock up that illustrates a fully refinished door, transom, and hardware. Final color/finish will be determined and selected by the Owner, and is required prior to refinishing any doors, or door components.
10. Provide fans, and proper ventilation while applying finish coats in an enclosed building. Install flooring protection in the area(s) where doors are being refinished, to ensure that no wood sealer, varnish, or other finish material contacts the floor. If spray finishing, include complete protection of surrounding walls, floors, equipment, fixtures, accessories and other building elements. Any finish material provided by under this Scope of Work that is discovered on anything other than a wood door or transom, shall be remove by this Contractor.

If it cannot be removed, or removal causes damage, this Contractor shall be responsible for the cost of repair or replacement.

11. Include touch up for minimal damage that may occur during the reinstallation process of all doors and transoms.
12. Contract shall provide, furnish, deliver, unload, and stock all hollow metal frames (Installed by BP-09A/BP-04A).
13. Furnish and install all doors (excluding all-glass entrances and storefronts).
14. All finish hardware shall be provided and installed by this Contractor. Include all necessary hinges, locksets/cylinders/keys, latch sets, bolts, closers, kick plates, door bumpers, door stops, door holds, silencers, etc.
15. This bid package to field verify that all existing door frames are plumb and level and make provisions for actual field conditions prior to release of doors that may go into existing frames. If the frames are identified to exceed allowable tolerances it is the responsibility of this subcontractor to advise the Construction Manager no later than two weeks prior to installing doors.
16. All doors and frames to have correct fire labels either embossed or with metal label (no peel off labels allowed), all doors/frames shall be marked with the applicable opening numbers.
17. Frames that are scratched during shipment will be touched up and re-primed on site by this contractor.
18. All door and frame prep work required to complete this scope of work is included.
19. After doors are installed this Contractor shall apply Ram Board protection to cover all sides of the door. Do not apply tape or adhesive directly on the door. Temporary door protection will be removed by others. This Contractor shall remove any adhesive residue found on the door after temporary door protection is removed.
20. Include four HM doors, frames, hinges, hardware, and keys to be used at the discretion of the Construction Manager. When directed by the Construction Managers Superintendent, deliver and install the doors, frames, etc., at the beginning of each phase of construction. Remove the doors frames and hardware, and reuse for the next two phases. Labor shall be included for installation, and removal for all three phases.
21. Remove and dispose of all protective coverings, dunnage, and packaging after doors, transoms, and hardware are reinstalled.
22. All warranties per requirements listed in the Project Documents are included.
23. Electrified door hardware, magnetic door holds, hold opens, etc. are to be furnished and installed by this subcontractor.
24. This contract is responsible for coordination of master keying schedule. This is to include setting up the meeting with the owner, upon notification by the CM, to review keying requirements by the University and will build subsequent keying schedule that will be issued to the school system for final approval prior to order.
25. Multiple mobilizations and multiple crews as required for construction progress.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. Magnetic Door Hold: Provide a unit price, per each device, in the event an additional device is required.
Devices as indicated in the drawings to be included in the base bid.
2. Provide a unit price for a replacement wood door.
3. Provide a unit price for a replacement transom.

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-09A**Bid Package Name:** Metal Studs & Drywall**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Framing and Drywall work, as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 054000 Cold Formed Metal Framing, 061000 Rough Carpentry, 070533 Fire and Smoke Assembly, 072100 Thermal Insulation, 078400 Fire Stopping, 083100 Access Doors and Panels, 092116 Gypsum Board Assemblies**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. All cold-formed metal framing of all-inclusive studs, hat channels, lintels, clip angles, reinforcements, fasteners, tracks, firestop, strapping, furring channels, clips, bracing, hanger wire, and all other incidental items required and in strict accordance with Contract Documents, manufacturer's written instructions, and local building codes. All metal framing shall meet the requirements outlined in the Contract Documents.
3. Provide all framing and drywall for new interior and exterior ceilings, soffits and walls.
4. All acoustical insulation, acoustic sealant, and associated accessories noted in the project documents, that are integral to this Scope of Work are included.
5. Install all access doors in GWB ceilings as shown on the drawings. Coordinate with MEP and Fire Sprinkler trades as well for any additional access doors as needed for their scopes of work.
6. BP-08B to furnish and turnover to this scope of work the HMF for drywall openings for installation by this Contractor.
7. All sanding and finishing will be done utilizing low dust methods so as not to interfere with new systems/ductwork, etc.
8. Protect all openings during sanding operations; this includes Electrical, Plumbing, Mechanical, etc.
9. All scaffolding as may be needed for this scope of work is by this subcontractor.
10. Considering the tight logistics of this project this subcontractor will only be allowed to bring in materials as needed for a 10 day work period. It will not be allowed to bring all materials to the site in one delivery, multiple deliveries, mobilizations, etc., shall be included for each phase of construction.
11. All gypsum wall board, abuse resistant wallboard, mold resistant wall board, sag resistant gypsum ceiling board, fire resistant, etc. required to complete this scope of work.
12. Control joints per drawings and/or manufacturer's specifications (as it relates to this scope of work) for all ceilings and walls.
13. See demolition drawings for coordination with this scope of work. Items scheduled to be demolished will result in patch work that will be performed by this Subcontractor. All necessary patch work created by demolition activities shall be encompassed in the base bid and must include prep work, replacement drywall, mud, cutting, skimming, misc. framing, protection of surrounding finishes, and clean up.

14. Upon completion of the Work, the floors shall be made clean of all "drywall mud". All residue must be removed from floors.
15. Framed openings for all access panels required in assemblies provided under this agreement is included.
16. Subcontractor shall provide all required framed openings in drywall assemblies installed under this agreement for all trades including, but not limited to, ductwork, MEP items, cable trays, toilet accessories, fire extinguisher cabinets, drinking fountains, etc. This Subcontractor shall verify with other Subcontractors the required quantities, locations and sizes of openings to be provided.
17. Include all labor and material for building temporary partitions for each phase of construction. See Specification Section 015000 Temporary Facilities and Controls, paragraph 1.05 Interior Enclosures. Furnish and install all metal studs, plywood, gypsum board, and gypsum board finishing. Seal joints at intersections with existing surfaces. Install door frame at each partition. Door frame will be provided by others. No painting is included. For bid purposes, assume four temporary partitions per building, for each phase, 12' high, 30 lineal feet per partition. Include acoustic insulation at all temporary partitions.
18. Install all door frames where a new door is shown to be located in a metal stud wall. Door frames provided by others.
19. Cleaning of all wall cavities prior to installation of wall insulation and drywall is included.
20. Subcontractor shall provide all in-wall metal or wood blocking in drywall assemblies for all trades including, but not limited to, toilet compartments, toilet accessories, display boards, blinds and shades, MEP equipment, signage, handrails, etc.
21. Provide all task lighting required to complete wall finishes. Permeant lighting may not be available at the time walls are being finished.
22. This Subcontractor shall include in the base bid an additional two hundred man hours for patch work as directed by the Construction Manager.
23. Subcontractor is responsible to protect all fire sprinkler heads and fire alarm devices from damage for drywall installations, drywall mud, and drywall dust.
24. Include a complete point up and patch of all existing, and new GWB walls and ceilings.
25. Build temporary shaft in Garinger building room 122A where new fire main enters building. For base bid assume 4'x4'x11'. See fire protection, and renovation plans for location. This work will need to be performed after normal working hours, on the weekend, or holiday, include overtime costs necessary.
26. Reference mechanical, electrical, fire alarm, and plumbing demolition plans. Provide prep work, patching, skimming, replacement drywall, cleanup, etc. at locations where existing fixtures, devices, or raceway is being removed from GWB ceilings and walls.
27. Each phase of construction will require first floor, and second floor work to occur simultaneously. Base bid should include separate crews with adequate man power for each floor.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: See Specification Section 012300, and plans for Alt 01. Phase 1 Denny Building reclad exterior walls with brick. The scope of work for this alternate shall include the removal of the complete existing precast exterior wall system on the Denny Building, unless specifically noted to keep selected portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. A steel stud and associated wall system components to result in a brick recladding brick system for the exterior of the Denny building. For this alternate, this Subcontractor shall include all: exterior sheathing, structural steel framing, engineered shop drawings for framing, layout, rigid insulation, wood blocking, and metal flashing.

Alternate 2: See Specification Section 012300, and plans for Alt 01 A. Phase 1 Denny Building Alternate Method of Construction to reclad exterior walls. The scope of work for this alternate shall include the keeping the complete existing precast exterior wall system on the Denny Building, unless specifically noted to remove portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. The existing precast will be integrated into other wall system components to result in a brick recladding brick system for the exterior of the Denny building. Masonry shop drawings submitted for this alternate to indicate masonry anchors used to attach the brick ties in a random pattern and attached to the existing precast with a minimum embed, so not to damage the existing precast panels during recladding installation and adequate pullout strength for the masonry recladding. For this alternate, this Subcontractor shall include all: exterior sheathing, structural steel framing, engineered shop drawings for framing, layout, rigid insulation, wood blocking, and metal flashing.

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-09B**Bid Package Name:** Acoustical Ceilings**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Suspended Acoustical Ceiling work, as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 095100 Suspended Acoustical Ceilings**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Provide all acoustical ceilings including all grid, panels, tiles, trims, fasteners, channels, ties, rivets, wire, clips, etc., as specified to meet Architects design intent including any field conditions modifications.
3. Subcontractor shall clean, straighten and punch out all grid installations after ceiling tile installation for CMAR's and Architect's acceptance on a room by room basis at no additional cost to CMAR.
4. Provide layout and cutouts for all mechanical, electrical, fire alarm, intercom, data, fire protection, exit lights, lights, diffusers, etc.
5. Coordinate with all subcontractors that have Work within, through, adjacent to, abutting, suspended from, etc. acoustical ceilings for all penetrations, support or mounting requirements, etc.
6. All required field measurements, and layout of all work and patterns is included.
7. Reference Electrical Site Plan, Sheet E-009. A new electrical chase will enter the Macy building, and route through the corridors and breezeways, through Barnard, and into Denny. This work will occur during Phase 1 Denny. To install this new service, ceiling grid, and ceiling tiles will need to be removed in Macy, and Barnard buildings, and breeze ways connecting the buildings. Base bid should include the removal and replacement of ceiling grid, and ceiling tiles along the route of this new service. Include extra material to replace any damaged grid or tile. This work will need to be performed after normal business hours, at night time, on the weekend, or on a holiday, and should be priced as overtime work.
8. Reference Fire Protection Plan, Sheet FP-004, FP-005, FP-101D, and FP-102D. A new fire main will enter the Garinger building on the first floor, during Phase 1 of Denny construction. To install this new service, and route piping to the fire pump, ceiling grid, and ceiling tiles will need to be removed on the first, and second floor of Garinger. Base bid should include the removal and replacement of ceiling grid, and ceiling tiles along the route of this new service. At the location the fire main enters the building, a new drywall chase will be constructed to house the fire main. This new chase will alter the existing ceiling grid layout. Include extra material to replace any damaged grid or tile. This work will need to be performed after normal business hours, at night time, on the weekend, or on a holiday, and should be priced as overtime work.
9. Additional wire supports for light fixtures, grills, dampers, etc. as required per Plans and Specifications and/or to meet codes.
10. Include all colors, finishes, and sizes noted in the Project Documents for interior and exterior acoustical tile and grid.
11. Wire supports are to be cut off to prevent eye injuries above ceiling.

12. Provide all scaffolds, lifts, etc., required to complete this scope of work.
13. This Subcontractor shall include an additional one hundred man hours for associated ceiling tile and grid work as directed by the Construction Manager.
14. Subcontractor is responsible for providing coordination drawings for each area to obtain Owner and Architect approval for layout, penetrations, and perimeter trim and moldings as required in contract documents.
15. Subcontractor shall furnish and install all required control and expansion joints in accordance with Contract Documents for building walls. All joints shall be indicated on Shop Drawings for Architect's approval.
16. Subcontractor shall clean, straighten and punch out all grid installations after ceiling tile installation for Construction Managers and Architect's acceptance on a room by room basis at no additional cost as reasonably determined by the Construction Manager and Subcontractor.
17. Subcontractor shall include five replacement costs for damaged grid and five replacement costs for damaged ceiling tile (based on total quantity of project) to make repairs for unidentifiable damages caused by others prior to Owner acceptance of Project. Subcontractor shall track use of costs/replacements and no further reimbursement shall be provided without field verification of the aforementioned.
18. Provide all 'Extra Materials' /Attic Stock for Owner in unopened containers/ packages to Construction Manager. All items shall be transmitted to Contractor in writing, and delivered and unloaded in a location(s) determined by Owner.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: See Specification Section 012300, and plans for Alt 01. Phase 1 Denny Building reclad exterior walls with brick. The scope of work for this alternate shall include the removal of the complete existing precast exterior wall system on the Denny Building, unless specifically noted to keep selected portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. A steel stud and associated wall system components to result in a brick recladding brick system for the exterior of the Denny building.

Alternate 2: See Specification Section 012300, and plans for Alt 01 A. Phase 1 Denny Building Alternate Method of Construction to reclad exterior walls. The scope of work for this alternate shall include the keeping the complete existing precast exterior wall system on the Denny Building, unless specifically noted to remove portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. The existing precast will be integrated into other wall system components to result in a brick recladding brick system for the exterior of the Denny building. Masonry shop drawings submitted for this alternate to indicate masonry anchors used to attach the brick ties in a random pattern and attached to the existing precast with a minimum embed, so not to damage the existing precast panels during recladding installation and adequate pullout strength for the masonry recladding.

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-09C

Bid Package Name: Metal Studs & Drywall & ACT Ceilings (Combo BP-09A & BP-09B)

Introduction:

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Complete all Concrete Work further described as all labor, material, competent supervision, equipment, etc. as required in the following Bid Package Scopes of Work as a Combination of BP-09A, and BP-09B, and as outlined in **Division 1 General Requirements and Specification Sections: : 054000 Cold Formed Metal Framing, 061000 Rough Carpentry, 070533 Fire and Smoke Assembly, 072100 Thermal Insulation, 078400 Fire Stopping, 083100 Access Doors and Panels, 092116 Gypsum Board Assemblies, 095100 Suspended Acoustical Ceilings,** respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Provide all acoustical ceilings including all grid, panels, tiles, trims, fasteners, channels, ties, rivets, wire, clips, etc., as specified to meet Architects design intent including any field conditions modifications.
3. Subcontractor shall clean, straighten and punch out all grid installations after ceiling tile installation for CMAR's and Architect's acceptance on a room by room basis at no additional cost to CMAR.
4. Provide layout and cutouts for all mechanical, electrical, fire alarm, intercom, data, fire protection, exit lights, lights, diffusers, etc.
5. Coordinate with all subcontractors that have Work within, through, adjacent to, abutting, suspended from, etc. acoustical ceilings for all penetrations, support or mounting requirements, etc.
6. All required field measurements, and layout of all work and patterns is included.
7. Reference Electrical Site Plan, Sheet E-009. A new electrical chase will enter the Macy building, and route through the corridors and breezeways, through Barnard, and into Denny. This work will occur during Phase 1 Denny. To install this new service, ceiling grid, and ceiling tiles will need to be removed in Macy, and Barnard buildings, and breeze ways connecting the buildings. Base bid should include the removal and replacement of ceiling grid, and ceiling tiles along the route of this new service. Include extra material to replace any damaged grid or tile. This work will need to be performed after normal business hours, at night time, on the weekend, or on a holiday, and should be priced as overtime work.
8. Reference Fire Protection Plan, Sheet FP-004, FP-005, FP-101D, and FP-102D. A new fire main will enter the Garinger building on the first floor, during Phase 1 of Denny construction. To install this new service, and route piping to the fire pump, ceiling grid, and ceiling tiles will need to be removed on the first, and second floor of Garinger. Base bid should include the removal and replacement of ceiling grid, and ceiling tiles along the route of this new service. At the location the fire main enters the building, a new drywall chase will be constructed to house the fire main. This new chase will alter the existing ceiling grid layout. Include extra material to replace any damaged grid or tile. This work will need to be performed after normal business hours, at night time, on the weekend, or on a holiday, and should be priced as overtime work.

9. Additional wire supports for light fixtures, grills, dampers, etc. as required per Plans and Specifications and/or to meet codes.
10. Include all colors, finishes, and sizes noted in the Project Documents for interior and exterior acoustical tile and grid.
11. Wire supports are to be cut off to prevent eye injuries above ceiling.
12. Provide all scaffolds, lifts, etc., required to complete this scope of work.
13. This Subcontractor shall include an additional one hundred man hours for associated ceiling tile and grid work as directed by the Construction Manager.
14. Subcontractor is responsible for providing coordination drawings for each area to obtain Owner and Architect approval for layout, penetrations, and perimeter trim and moldings as required in contract documents.
15. Subcontractor shall furnish and install all required control and expansion joints in accordance with Contract Documents for building walls. All joints shall be indicated on Shop Drawings for Architect's approval.
16. Subcontractor shall clean, straighten and punch out all grid installations after ceiling tile installation for Construction Managers and Architect's acceptance on a room by room basis at no additional cost as reasonably determined by the Construction Manager and Subcontractor.
17. Subcontractor shall include five replacement costs for damaged grid and five replacement costs for damaged ceiling tile (based on total quantity of project) to make repairs for unidentifiable damages caused by others prior to Owner acceptance of Project. Subcontractor shall track use of costs/replacements and no further reimbursement shall be provided without field verification of the aforementioned.
18. Provide all 'Extra Materials' /Attic Stock for Owner in unopened containers/ packages to Construction Manager. All items shall be transmitted to Contractor in writing, and delivered and unloaded in a location(s) determined by Owner.
19. All cold-formed metal framing of all-inclusive studs, hat channels, lintels, clip angles, reinforcements, fasteners, tracks, firestop, strapping, furring channels, clips, bracing, hanger wire, and all other incidental items required and in strict accordance with Contract Documents, manufacturer's written instructions, and local building codes. All metal framing shall meet the requirements outlined in the Contract Documents.
20. Provide all framing and drywall for new interior and exterior ceilings, soffits and walls.
21. All acoustical insulation, acoustic sealant, and associated accessories noted in the project documents, that are integral to this Scope of Work are included.
22. Install all access doors in GWB ceilings as shown on the drawings. Coordinate with MEP and Fire Sprinkler trades as well for any additional access doors as needed for their scopes of work.
23. BP-08B to furnish and turnover to this scope of work the HMF for drywall openings for installation by this Contractor.
24. All sanding and finishing will be done utilizing low dust methods so as not to interfere with new systems/ductwork, etc.
25. Protect all openings during sanding operations; this includes Electrical, Plumbing, Mechanical, etc.
26. All scaffolding as may be needed for this scope of work is by this subcontractor.
27. Considering the tight logistics of this project this subcontractor will only be allowed to bring in materials as needed for a 10 day work period. It will not be allowed to bring all materials to the site in one delivery, multiple deliveries, mobilizations, etc., shall be included for each phase of construction.
28. All gypsum wall board, abuse resistant wallboard, mold resistant wall board, sag resistant gypsum ceiling board, fire resistant, etc. required to complete this scope of work.
29. Control joints per drawings and/or manufacturer's specifications (as it relates to this scope of work) for all ceilings and walls.
30. See demolition drawings for coordination with this scope of work. Items scheduled to be demolished will result in patch work that will be performed by this Subcontractor. All necessary patch work created by demolition activities shall be encompassed in the base bid and must include prep work, replacement drywall, mud, cutting, skimming, misc. framing, protection of surrounding finishes, and clean up.
31. Upon completion of the Work, the floors shall be made clean of all "drywall mud". All residue must be removed from floors.
32. Framed openings for all access panels required in assemblies provided under this agreement is included.
33. Subcontractor shall provide all required framed openings in drywall assemblies installed under this agreement for all trades including, but not limited to, ductwork, MEP items, cable trays, toilet accessories, fire extinguisher

cabinets, drinking fountains, etc. This Subcontractor shall verify with other Subcontractors the required quantities, locations and sizes of openings to be provided.

34. Include all labor and material for building temporary partitions for each phase of construction. See Specification Section 015000 Temporary Facilities and Controls, paragraph 1.05 Interior Enclosures. Furnish and install all metal studs, plywood, gypsum board, and gypsum board finishing. Seal joints at intersections with existing surfaces. Install door frame at each partition. Door frame will be provided by others. No painting is included. For bid purposes, assume four temporary partitions per building, for each phase, 12' high, 30 lineal feet per partition. Include acoustic insulation at all temporary partitions.
35. Install all door frames where a new door is shown to be located in a metal stud wall. Door frames provided by others.
36. Cleaning of all wall cavities prior to installation of wall insulation and drywall is included.
37. Subcontractor shall provide all in-wall metal or wood blocking in drywall assemblies for all trades including, but not limited to, toilet compartments, toilet accessories, display boards, blinds and shades, MEP equipment, signage, handrails, etc.
38. Provide all task lighting required to complete wall finishes. Permeant lighting may not be available at the time walls are being finished.
39. This Subcontractor shall include in the base bid an additional two hundred man hours for patch work as directed by the Construction Manager.
40. Subcontractor is responsible to protect all fire sprinkler heads and fire alarm devices from damage for drywall installations, drywall mud, and drywall dust.
41. Include a complete point up and patch of all existing, and new GWB walls and ceilings.
42. Build temporary shaft in Garinger building room 122A where new fire main enters building. For base bid assume 4'x4'x11'. See fire protection, and renovation plans for location. This work will need to be performed after normal working hours, on the weekend, or holiday, include overtime costs necessary.
43. Reference mechanical, electrical, fire alarm, and plumbing demolition plans. Provide prep work, patching, skimming, replacement drywall, cleanup, etc. at locations where existing fixtures, devices, or raceway is being removed from GWB ceilings and walls.
44. Provide a dedicated field supervisor for the metal stud and drywall package, and a dedicated field supervisor for the acoustical ceiling package for all phases of construction.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited

against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: See Specification Section 012300, and plans for Alt 01. Phase 1 Denny Building reclad exterior walls with brick. The scope of work for this alternate shall include the removal of the complete existing precast exterior wall system on the Denny Building, unless specifically noted to keep selected portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. A steel stud and associated wall system components to result in a brick recladding brick system for the exterior of the Denny building.

Alternate 2: See Specification Section 012300, and plans for Alt 01 A. Phase 1 Denny Building Alternate Method of Construction to reclad exterior walls. The scope of work for this alternate shall include the keeping the complete existing precast exterior wall system on the Denny Building, unless specifically noted to remove portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. The existing precast will be integrated into other wall system components to result in a brick recladding brick system for the exterior of the Denny building. Masonry shop drawings submitted for this alternate to indicate masonry anchors used to attach the brick ties in a random pattern and attached to the existing precast with a minimum embed, so not to damage the existing precast panels during recladding installation and adequate pullout strength for the masonry recladding.

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-09D**Bid Package Name:** Ceramic Tile**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Tiling work, as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 090561 Common Work Results for Flooring Preparation, 093000 Tiling, 079200 Joint Sealants,** respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Furnish and install all tile for floor applications, tile for wall applications, stone thresholds, ceramic accessories, aluminum thresholds, ceramic trim, etc.
3. Provide all ceramic tile in the colors and design as indicated in the project documents.
4. Include material, labor, etc. required to provide mockup of all tile applications. Subcontractor shall dispose of mockup once Owner and Architect have reviewed, and approved. Coordinate location and details with Construction Manager, and Design Team.
5. Provide all caulking, sealants, joint fillers, etc. within this Scope of Work, including the areas where this Scope of Work is abutting dissimilar materials (i.e. floor drains, clean-outs, plumbing fixtures, control/expansion joints, etc.) to provide an acceptable finish product in appearance.
6. Include the remove any existing residue, adhesive, grout, sealants, etc., prior to installing new materials.
7. The complete subfloor preparation required to meet the strictest standard set forth in the construction documents, manufactures recommendations, TCNA, etc. is included in this Scope of Work. Include provisions for work as would usually be expected in a renovation an existing building of this age in the base bid.
8. All testing related to this scope of work that is listed in the construction documents is included. These tests include, but are not limited to, moisture tests, moisture vapor emission testing, alkalinity (pH) tests, adhesive bond and compatibility tests, internal relative humidity tests, etc. Submit all test results to Construction manager no more than two business days after conclusion of testing. Testing shall be done in sufficient time prior to installation to afford time to correct any noted deficiencies (moisture levels, etc.). This Subcontractor shall be fully responsible for any corrective actions required to fix the sub-floor conditions.
9. Verify all elements of work of other trades in walls and floors are at proper slope, elevation, are true and plumb, etc. prior to tile installation. Note any deficiencies to the Construction Manager.
10. Provide all leveling grout, bonding coat/grout, mastic, epoxy grout, flash patch, floor and grout sealers, bonding agents, adhesive, floor scarring, grinding, etc. to install the ceramic tile in accordance with Contract Documents.
11. Provide all cementitious bond coats, bonded waterproofing membranes, etc. required per project documents. Include all testing to determine watertight approval prior to installation of tile.
12. The installation of tile on new or existing walls or floors constitutes acceptance of substrate condition. Additional compensation for rework associated with unacceptable substrates will not be granted, and will be paid for by this Subcontractor.

13. Include all masking and protection of surrounding building elements, finishes, etc. Subcontractor shall remove all protection materials and shall be responsible for all costs should protection cause damage to other materials upon removal.
14. Leveling, infill, grinding, etc., of existing floors prior to installation of floor tile. Coordinate slopes to floor drains, transitions, thresholds, etc. with Construction Manager prior to work.
15. Include and additional one hundred man hours for associated work as directed by the Construction Manager.
16. Crack isolation membrane per specifications.
17. Owner's maintenance stock.
18. Include the treatment of existing cracks/control joints.
19. Cleaning of all completed work including removal of grout, caulk, stains, discoloration, etc., to achieve Owner acceptance prior to installation of protective covering. Notify the Construction Manger prior to installing any protective covering.
20. Provide and install Cover Guard brand, flooring protection (minimum 10 mil thickness) over all floor tile after completed work has been cleaned, inspected, and approved by the Construction Manager. Joints in the cover guard floor protection shall be secured with Cover Guard brand seam tape. Any adhesive residue from floor protection seam tape on surrounding building finishes shall be removed by this Contractor. If the residue cannot be removed, the material shall be replaced at this Contractors expense. Kraft paper, and RAM board products are not acceptable to use as flooring protection. Include provisions to maintain/repair flooring protection wear and tear from construction activities after installation, until final acceptance.
21. Subcontractor must also comply with ADA/Code requirements including slip resistant finishes, allowable heights to thresholds, etc.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes,

bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-09E**Bid Package Name:** Resilient, Carpet, and Base**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Floor Preparation, Resilient Flooring/base/stair accessories, Tile Carpeting, work, as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 090561 Common Work Results for Flooring Preparation, 096500 Resilient Flooring, 096813 Tile Carpeting, 079200 Joint Sealants, 016116 Volatile Organic Compound Content Restrictions, 033500 Concrete Finishes (for preparation of subfloor)**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Provide and install all vinyl composition tile, rubber base, and carpet, transition strips, rubber stair treads/accessories, flooring color blocks, etc. for a complete flooring installation per plans and specifications.
3. First floor and second floor work will occur at the same time. Provide separate crews with adequate man power for each floor, for each phase of construction.
4. Include the remove any existing residue, adhesive, grout, sealants, etc., prior to installing new materials.
5. The complete concrete subfloor preparation required to meet the strictest standard set forth in the construction documents, manufactures recommendations, etc. is included in this Scope of Work. Include provisions for work as would usually be expected in a renovation of an existing building of this age in the base bid. See Specification Section 035000 Concrete finishes for tolerances to be achieved by this Scope of Work.
6. All testing related to this scope of work that is listed in the construction documents is included. These tests include, but are not limited to, moisture tests, moisture vapor emission testing, alkalinity (pH) tests, adhesive bond and compatibility tests, internal relative humidity tests, etc. Submit all test results to Construction manager no more than two business days after conclusion of testing. Testing shall be done in sufficient time prior to installation to afford time to correct any noted deficiencies (moisture levels, etc.). This Subcontractor shall be fully responsible for any corrective actions required to fix the sub-floor conditions.
7. Include the treatment of cracks/control joints/depressions/high spots/leveling, etc.
8. All grinding/patching/sanding of floors to be done using low dust methods. Protect all surrounding finishes before starting.
9. Shop drawings, submittals, samples, mockups, etc. per specifications.
10. All floor leveling compound as it applies to this scope of work.
11. This subcontractor will be fully responsible to level the existing subfloors to the required standard, given the existing conditions of existing, and new slabs, utilizing product that meets the manufactures requirements, to meet the floor flatness, and levelness tolerances as given in the specifications. It is understood that there is potential heavy prep work to meet the requirements.
12. Extra stock is required for this scope.
13. All joint sealants as may be required for this scope.

14. Subcontractor is responsible for providing shop drawings for each area to obtain Owner and Architect approval for carpet patterns and/or colors. Shop drawings shall include floor and border tile patterns, trim, colors, transitions, seaming layout, etc., as required in contract documents.
15. Subcontractor is responsible for necessity of moving air by fan or other approved methods as necessary to perform installations and curing of work installed under this agreement.
16. Subcontractor is responsible for protecting finished wall paint, doors, etc. from damage during installation of carpeting.
17. This Subcontractor shall include an additional one hundred man hours for associated work as directed by the Construction Manager.
18. Cleaning of all completed work including removal of adhesives, caulk, stains, discoloration, etc., to achieve Owner acceptance prior to installation of protective covering. Notify the Construction Manager prior to installing any protective covering.
19. See flooring base bid plans in Construction Documents, sheets A-703, and A-704. Base bid shall include furnishing and installation of Cover Guard brand, flooring protection (minimum 10 mil thickness) over all flooring scheduled to remain. Joints in the cover guard floor protection shall be secured with Cover Guard brand seam tape. Any adhesive residue from floor protection seam tape on surrounding building finishes shall be removed by this Contractor. If the residue cannot be removed, the material shall be replaced at this Contractor's expense. Kraft paper, and RAM board products are not acceptable to use as flooring protection. Include provisions to maintain/repair flooring protection wear and tear from construction activities after installation, until final acceptance. Flooring protection noted above shall be provided for each phase of work, and shall not be reused.
20. See wayfinding plans on sheets A-711A through A-712E. Provide all color block flooring shown in these plans. Submit shop drawings showing the layout of flooring
21. Subcontractor shall furnish and install all required control and expansion joints in accordance with Contract Documents, and existing conditions. All joints shall be indicated on Shop Drawings for Architect's approval.
22. Receiving, unloading and distributing materials for installation is included. All shipping wrapping shall be flattened and thrown away in dumpster (furnished by CMAR).
23. Provide carpet and carpet tile in the colors (including all custom colors as required) and design as indicated on the documents.
24. All required field measurements, and layout of all work and patterns is included.
25. This subcontractor shall assume that the concrete substrate floors moisture content shall not pass the moisture test as required by the manufacturer(s) and shall include all proper moisture mitigation to meet the contract schedule. This includes but is not limited to concrete sealers or any other methods in remediating the moisture level so that the new flooring may be installed without issue.
26. Provide and install Cover Guard brand, flooring protection (minimum 10 mil thickness) over all new resilient, and carpet after completed work has been cleaned, inspected, and approved by the Construction Manager. Joints in the cover guard floor protection shall be secured with Cover Guard brand seam tape. Any adhesive residue from floor protection seam tape on surrounding building finishes shall be removed by this Contractor. If the residue cannot be removed, the material shall be replaced at this Contractor's expense. Kraft paper, and RAM board products are not acceptable to use as flooring protection. Include provisions to maintain/repair flooring protection wear and tear from construction activities after installation, until final acceptance. Flooring protection noted above shall be provided for each phase of work, and shall not be reused.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.

3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: See Specification Section 012300, and plans for Alternate 7A – Remove existing corridor VCT flooring and wall base on the second floor of Denny Building and provide new corridor VCT flooring and wall base on the second floor of the Denny building to accommodate corridor wayfinding. Existing flooring to be removed contains hazardous material. Demo and hazardous material removal required to complete this scope of work will be by others. Include pricing to furnish and install new flooring shown in the alternate. The Scope of Work items above apply to this alternate.

Alternate 2: See Specification Section 012300, and plans for Alternate 7B – Remove existing flooring (carpet and/or VCT flooring, and wall base) and install new flooring (carpet, VCT, and wall base) as noted by Alternate 7B on the Drawings & Finish Schedule. Demo and hazardous material removal required to complete this scope of work will be by others. Include pricing to furnish and install new flooring shown in the alternate. The Scope of Work items above apply to this alternate.

Alternate 3: See Specification Section 012300, and plans for Alternate 7C – Remove existing flooring carpet and/or VCT flooring, and wall base) and install new flooring (carpet, VCT, and wall base) as noted by Alternate 7C on the Drawings and Finish Schedule. Demo and hazardous material removal required to complete this

scope of work will be by others. Include pricing to furnish and install new flooring shown in the alternate. The Scope of Work items above apply to this alternate.

Alternate 4: See Specification Section 012300, and plans for Alternate 11 Carpet Preferred Alternate. 10: Provide basis of design carpet as noted in section 09 68 13 Tile Carpeting, and Finish Schedule.

Alternate 5: See Specification Section 012300, and plans for Alternate 14 Auditorium Seats. The scope of work for this alternate shall include the total replacement of all fixed seating in the auditorium classrooms, to be separated by cost per auditorium as follows:

- 1) Denny Room 109 – Price per Section 12 70 00 Swing Away Seat
- 2) Denny Room 111 – Price per Section 12 70 00 Swing Away Seat
- 3) Denny Room 200 – Price per Section 12 61 00 Fixed Audience Seating.
- 4) Denny Room 220 – Price per Section 12 70 00 Swing Away Seat

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-09F**Bid Package Name:** Painting**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Painting work, as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 099000 Painting, 099123 Interior Painting, 079200 Joint Sealants, 070533 Fire and Smoke Assembly Identification**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Paint all CMU, drywall, ceilings, walls, etc., as required by the contract documents.
3. Painting of all hollow metal frames and access doors.
4. This Subcontractor shall be responsible for all surface preparation for the application of this scope of work. See the surface preparation section (s) in the project manual for reference.
5. It is the responsibility of this Subcontractor to verify compatibility of shop applied coatings to topcoats applied in the field. Sanding, back-priming, block-fill, barrier coats, alkalinity and moisture testing, abrasive blast-cleaning, cleaning, wiping, washing, etc. as required to achieve compatibility of primer and top coats are part of this Scope.
6. Subcontractor shall verify with other trades and their respective manufacturers that all proposed materials to be used (i.e. cleaning agents, primers, backing materials, bond breakers, sealants, etc.) are compatible with adjacent substrates and as recommended by said manufacturers so as not to void other building systems warranties.
7. Include the preparation and painting of all stair ceilings for all buildings in each phase of construction.
8. Include all painted accent wall colors, layout, etc. Reference the wayfinding, and finish plans for painted accent wall requirements.
9. Subcontractor is responsible for the proper shipping, handling, storage and installation of materials in this Scope of Work in strict accordance with the manufacturer's written instructions.
10. It shall be the responsibility of this Subcontractor to adequately protect all adjacent work by others during the installation of this scope of work. Included is all required masking and protection of adjacent work including hardware, fixtures, accessories, equipment, flooring, sprinkler heads, etc. Subcontractor shall remove all the masking, etc. once painting is complete. Provide "Wet Paint" signs to protect newly painted finishes. Any material, equipment, or building element damage caused by the lack of protection by this Subcontractor shall be repaired or replaced at the expense of this Subcontractor.
11. Provide protection of all existing finishes scheduled to remain.
12. Include prep work, and painting of all exposed concrete beams, columns, ceilings, and other miscellaneous concrete.
13. All fluid applied flooring. Prep work for flooring to receive fluid applied flooring is included. Remove any sealants, compounds, adhesives, etc. Include any minor patchwork for small holes, scratches, etc. Provide Cover

Board brand protection over finished floor once work is complete.

14. All prep work and painting of all steel, miscellaneous and Ornamental metals, ferrous metals, etc., both interior and exterior per Construction Documents.
15. Include the touch up of damaged coatings. This includes preparation of the damaged coating, primer, and necessary finish coats to achieve a seamless appearance. For bid purposes include five percent of the total surface area to be painted. Subcontractor shall track use of costs/touch up and no further reimbursement shall be provided without field verification of the aforementioned.
16. Furnish all extra materials/attic stock per specification sections covered under this agreement of each color and type used on the Project which shall include unopened containers/packages, factory markings, project labels identifying material specification and quantity, palleted, and transmitted to Contractor at one time only. Subcontractor shall deliver to location(s) determined by Owner. Extra materials shall not be utilized by Subcontractor for punchlist work
17. All additional lighting and/or task lighting to perform this Scope of Work. Subcontractor shall insure that each worker has adequate lighting in each room to do a first class job of applying finishes. Extension cords, light stands, portable lights, etc. above and beyond OSHA standards are Subcontractor's responsibility to provide.
18. Provide and install all fire/smoke rating notices at all fire rated, and smoke rated walls, per specifications, code, fire marshal requirements or method approved by Architect (ie verbiage, letter sizing, and spacing shall be approved by Architect at all rated wall/ceiling assemblies).
19. Work includes, but is not limited to: painting per the number of coats listed in the specs of the following items: all gypsum board walls, ceilings and bulkheads, all masonry/concrete to receive paint, all concrete floor sealer/paint in rooms as specified, painting of all new and existing doors and HM frames, lintels, access doors, handrails, misc. steel, prep of hard surfaces to receive paint, etc.
20. Subcontractor shall include an additional two hundred man hours for paint touch up work as directed by the Construction Manager.
21. No painting or block-filling of wall that receive new ceramic tile. Coordinate with the Construction Manager prior to starting. If painted it will be the responsibility of this subcontractor to remove.
22. Painting of all exterior hard ceilings, soffits, etc.
23. During phase one of construction a new fire main, and power to the fire pump will be installed. These new services to the fire pump requires painting, and other trades work to be performed in existing buildings, after normal working hours, on weekends, or holidays. See sheets FP-003, FP-004, and E-009, for the routing of new services to the fire pump. Include painting at each location the new fire main, and electrical chase penetrates a wall or ceiling in Macy, Barnard, and Garinger. Assume a 2'x'2 area for each penetration.
24. Temporary partitions will be built to separate occupied space from construction. BP-09A will build these partitions. Include painting of these temporary partitions for each phase of work. For bid purposes, assume painting four temporary partitions per building, 11' high, and 30 lineal feet per partition. Paint to match adjacent walls.
25. See Sheet A-101D, Room 122A for new chase around fire main. Include painting this chase during phase 1 Denny, assume 4'x4'x11'. Temp chase will be built during phase 1, and removed during phase 3. Include a second painting during phase 3 per plans and specifications.
26. All paint related caulk, including but not limited to the following: caulking of all interior hollow metal door frames to adjacent wall, gypsum board to masonry/concrete, tile to other surfaces, hollow metal door frames to VCT, interior corners, access door frames, etc.
27. Sample Installation (mock-up), coordinate materials and work with Construction Manger's schedule to allow for approval before beginning applicable work.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.

2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: See Specification Section 012300, and plans for Alt 06. Scope of work for this alternate shall include all cleaning, prep work, and painting of the existing louvers.

Alternate 2: See Specification Section 012300, and plans for Alt 07A. Existing base and flooring will be removed with this Alternate, creating new wall space to be prepped and painted. Scope of work for this Alternate shall include all cleaning, prep work, and painting required to paint the wall where existing base is removed.

Alternate 3: See Specification Section 012300, and plans for Alt 07B. Existing base and flooring will be removed with this Alternate, creating new wall space to be prepped and painted. Scope of work for this Alternate shall include all cleaning, prep work, and painting required to paint the wall where existing base is removed.

Alternate 4: See Specification Section 012300, and plans for Alt 07C. Existing base and flooring will be removed with this Alternate, creating new wall space to be prepped and painted. Scope of work for this

Alternate shall include all cleaning, prep work, and painting required to paint the wall where existing base is removed.

Alternate 5: See Specification Section 012300, and plans for Alt 08. The Scope of work for this Alternate shall include the cleaning, preparation, and painting of the existing walls, gates, and other components for the exterior trash enclosures located in the breezeways. Replacement of existing sealants, elastomeric coating, and concrete work is not included.

Alternate 6: See Specification Section 012300, and plans for Alt 09. The Scope of work for this Alternate shall include the cleaning, preparation, and painting of the existing walls, doors, and other components for the exterior CMU wall located on the south side of Denny building in the breezeway.

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-10A**Bid Package Name:** Specialties & Toilet Accessories**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Specialties, Toilet Accessory, Toilet Compartment, and Visual Display Board work, as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 101101 Visual Display Boards, Plastic Toilet Compartments, 102800 Toilet, Bath, and Laundry Accessories, 123600 Countertops,** respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Provide and install all visual display boards per plans and specifications. See enlarged lecture room plans for locations and dimensions.
3. All materials shall be delivered and unloaded by this Subcontractor. Provide all accessories required per the construction documents.
4. After marker boards are installed provide 8mil thick sheet of polyethylene for a temporary protective cover.
5. Provide flag holders per plans and specifications.
6. Provide chalk trays per plans and specifications. Chalk trays shall be one piece, the full length of the board.
7. All mounting brackets shall be concealed.
8. See the toilet accessories schedule on sheet A-403. Furnish and install the following items:
 - TA1
 - TA6
 - TA7
9. The following items listed on the toilet accessory schedule will be provided by the Owner, and installed by this Subcontractor.
 - TA2
 - TA3
 - TA4
 - TA5
10. All Owner provided equipment shall be unloaded, unwrapped, and installed by this Subcontractor. Prior to accepting this material, verify condition of Owner provided toilet accessories. If any Owner provide accessories are found to be damaged, notify the Construction Manager immediately.
11. All handling of materials, staging of materials to each floor as needed, etc.
12. All field measurement prior to ordering materials if applicable.
13. All anchorage devices, bolts, screws, nuts, etc. for all items furnished shall be included.
14. All plastic toilet compartments, urinal screens, including mounting brackets/anchorage devices, surface and recessed installations, etc. as indicated on the Contract Drawings. Verify actual measurements/openings by

field measurements before fabrications, show recorded measurements on shop drawings. Coordinate field measurements, fabrications schedule with construction progress to avoid delays.

15. Subcontractor is responsible for all penetrations, attachments, etc., in or through concrete, CMU, gypsum wall board, slabs, etc., or any other material or structure necessary to complete this work.
16. Provide protective covering for all toilet partitions, and bath accessories.
17. This Subcontractor shall include seventy five additional man hours for associated work as directed by the Construction Manager.
18. It will be the full responsibility of this package to coordinate installation of any blocking that may be required for this scope of work. The actual installation will be done by the framing and drywall contractor based on the provided layout drawings by this package. Once installation of blocking is complete it will be the responsibility of this Subcontractor to come to the jobsite to verify it is installed in the correct location. In the event that blocking is not installed where needed upon actual installation it will be the responsibility of this Subcontractor to fund tear out of the finishes to allow for this installation.
19. Provide and install all shelving, backsplash, grommets with covers, and support angle brackets per the Project Documents. Install plastic protection over finished product after installation is complete. Include all samples, and submittals for Owner approval.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-10S**Bid Package Name:** Identifying Devices**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Wayfinding and Signage work, as outlined in **Division 1 General Requirements, and the following Specification Sections as it applies to this scope of work: 101400 Signage**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Furnish and install all wayfinding and signage including all accessories as specified and shown in the plans.
3. No deviations will be allowed in the field with regard to installation method, location, etc., unless having previous approval by the design team and Owner in writing in advance of the installation.
4. Install protection over all new work provided in this Subcontract.
5. Take special precautions to avoid damage to building and surrounding finishes while working. Subcontractor is responsible for the cost associated with repairing or replacing any building elements, or finishes damaged while performing work included in this Subcontract.
6. Submit sign schedule for approval by owner and design team.
7. Provide signage to the Construction Manager for temporary signage during construction. Lettering, logos, etc. will be provided prior to Construction Activities. For bid purposes assume the following: thirty 2'x2' plastic surface mounted signs; six 24" wide x 36" high heavy duty plastic easel shaped sign stands; 20 no smoking signs (Spanish and English).

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.

5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-12B**Bid Package Name:** Window Treatments**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Window Shades, as outlined in **Division 1 General Requirements, Specification Section 122400 Window Shades, as relates to this scope of work;** respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Provide and install window shades at all exterior windows. See window types, window shade detail on sheet A-601, and specifications for details.
3. Provide fabric samples for Owners and Architects review and approval prior to ordering materials per specifications.
4. Field measure dimensions prior to ordering material, or fabrication of shades. Include multiple trips for field measurements, for each floor of each phase of construction.
5. The first and second floor of each phase of construction will be finishing concurrently. Include necessary man power for separate crews on each floor.
6. Provide all accessories, mounting brackets, roller tubes, hem bars, hardware, and accessories, fully factory assembled.
7. Adhere to installation tolerances listed in specifications. Replace shades that exceed specified dimensional tolerances at no extra cost to the Owner or Construction Manager.
8. Subcontractor shall clean soiled shades and exposed components as directed by Construction Manager, using cleaning procedures recommended by the manufacture. Replace shades that cannot be cleaned to “like new” condition.
9. Shop drawings should clearly identify any blocking that is required to support shades.
10. All preparation of surfaces required for achieving the best result for substrate under project conditions.
11. After shades are installed this subcontractor shall protect the installed products from subsequent construction operations. Touch up, repair, or replace damaged products before substantial completion.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.

2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-12C**Bid Package Name:** Fixed Audience Seating**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Fixed Audience Seating, as outlined in Division 1 General Requirements, 127000 Swing Away Seat and Table Systems, etc., respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Remove furniture in rooms 200, 220, 109, and 111 in Denny Building. Protect seating with plastic bubble wrap, blankets, etc., and transfer to an offsite storage facility. This facility shall be climate controlled, fully bonded and insured. When directed by the Construction Manager, this Subcontractor shall bring the removed furniture back to Denny and reinstall. At final turnover this furniture shall be in the same condition that it was in when removed. Provide full photo documentation prior to removing. Replace protective covering after reinstalling seating.
3. Seating or tables scheduled to be removed and reinstalled later that are discovered to be damaged, or missing parts should be documented and brought to the attention of the Construction Manager immediately.
4. Provide all new seating and table systems per plans and specifications.
5. Provide samples, product data, quality assurance submittals, warranty, etc. per project Specifications.
6. Adjust seats and tables to ensure seats in each row are aligned when in the upright position.
7. Any new seats and tables provided by this Subcontractor that are discovered to have defects or damage shall be repaired, or replaced by this subcontractor.
8. After installation this subcontractor shall provide plastic wrap protection over all finished surfaces. Plastic will be removed by others. Any residue from tape or adhesives that the final cleaning contractor is unable to remove shall be removed by this Subcontractor. Take precautions while applying furniture protection to ensure no adhesive is applied to fabric.
9. Subcontractor shall take precautions to ensure no damage is done to surrounding finishes when furniture is being delivered and installed. Any damage to the building and surrounding finishes resulting from the work of this Subcontractor shall be repaired or replaced at the expense of this Subcontractor.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.

2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. Rate per installer hour regular time.
2. Rate to provide replacement seating.
3. Rate to provide replacement table.

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

- Alternate 1:** See Specification Section 012300 Alternates, and Drawings for Alternate 14. Base Bid: Denny Rooms 120 and 122 to receive new swing away seating as listed in Spec Section 12 70 00 Swing Away Seat. All other fixed seating to be removed and stored in a location approved by the Owner. All seating and tables to be documented by the Construction Manager for the condition prior to removal to include: 1) wear and tear and 2) proper working of condition. The CM is to propose a current value of the fixtures to the Owner for concurrence prior to removal. After the major parts of construction are completed, with the Owner's approval the existing fixtures to be reinstalled. In the event damage has occurred the Owner may elect one of the following:
- 1) Construction Manger fix the existing fixtures.

2) Construction Manger to provide a proposal to the Owner using the cost established by this Alternate to procure and install new seating, proposal to deduct the value of the existing fixtures as previously established.

Alternate 14: The scope of work for this alternate shall include the total replacement of all fixed seating in the auditorium classrooms, to be separated by cost per auditorium as follows:

- 1) Denny Room 109 – Price per Section 12 70 00 Swing Away Seat
- 2) Denny Room 111 – Price per Section 12 70 00 Swing Away Seat
- 3) Denny Room 200 – Price per Section 12 61 00 Fixed Audience Seating.
- 4) Denny Room 220 – Price per Section 12 70 00 Swing Away Seat.

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-15A**Bid Package Name:** Fire Sprinkler**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Fire Suppression and Site Utility work, as outlined in **Division 1 General Requirements, Division 21 Fire Suppression, etc., and the following Specification Sections as relates to this scope of work: 030000 Concrete, 078400 Firestopping, 283111 Digital Addressable Fire Alarm System, 312316 Trenching for Site Utilities, 321116 Site Water Distribution**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. The scope of work is for a turn-key fire sprinkler system, including design / engineering, permitting, installation and inspections.
3. This agreement includes providing complete a Fire Pump System that will meet the requirements of this project based on the most current flow test. Pump shall be sized to supply all five buildings.
4. To include complete all design, submittal and engineered shop drawing preparation and obtaining approval. Subcontractor is responsible for providing complete wet/dry sprinkler design including complete submittal to the Architect and appropriate governmental inspection agencies for approval
5. Subcontractor Supply all engineered submittals, shop drawings, product samples, and calculation for the complete design of the fire sprinkler system to meet all requirements of the NFPA, and local authority having jurisdiction.
6. Base bid should include an expedited delivery of shop drawings, product data, calculations, etc. It is imperative that the fire pump be procured and delivered to the site in the shortest time possible.
7. Obtain flow test for required calculations.
8. All piping, connections, valves, heads, gauges, tests, drains, hangers, supports, splash blocks, thrust blocks, etc. for a complete fully functional system.
9. Provide a complete fire sprinkler system, pump, and associated site work per plans, and specifications. Tapping into the existing water main, and routing fire main into Garinger is included in this scope of work.
10. Provide temporary standpipes if required per code. The standpipes shall be installed in accordance with the project schedule and shall be operational to a height compliant to requirements for “Temporary Fire Protection” as interpreted by the local code.
11. Provide standpipes as shown with flow and tamper switches and valves per the code requirements. Flow and tamper switches to be wired by others.
12. Furnish and install all piping, hangers, valves, FDC’s, hose connections, drain lines, heads, escutcheons, etc. for a complete and functional fire suppression system.
13. Turnkey installation of the remote fire department connections shown in the plans, include gravel dry wells, concrete pad at valve box, etc.
14. Subcontractor is responsible to create all through wall/slab penetrations required to complete this scope of work.

15. Prior to cutting any concrete, or drilling for the installation of expansion anchors, threaded rod, fasteners, etc., locate embedded materials such as reinforcing steel, post tensioning cables, plumbing, and electrical conduits using nondestructive methods.
16. Install fire line shown on sheet C-200. Fire line shall be brought into the building 12 inches above finish floor. Refer to Fire Protection plans and details for additional information.
17. All utility work required to bring the new fire line into the Garinger building, and to the fire pump shall be completed during phase 1 of construction. This work will require construction activities to take place in occupied space. For bid purposes, assume that this work will take place after hours, on the weekend, or during holidays. All demo, cutting, core drilling, etc. required to complete this work is included. Ceiling tiles required to be removed to allow for new work to be installed in the occupied buildings will be removed and replaced by BP-09B. Protection of surrounding finishes, and clean up for this work shall be by this Subcontractor. All new through wall, and through slab penetrations created by this new fire main shall be sealed with fire stopping by this Subcontractor. See fire protection details for UL system requirements. Fire stopping for the new penetrations in Garinger, and the connector between Garinger and Denny, shall be installed immediately after installing the fire main during phase 1.
18. Any damage to surrounding finishes, equipment, furnishings, etc. resulting from this work of this Subcontractor shall be repaired or replaced at the expense of this Subcontractor.
19. Existing pavers required to be removed to complete this work will be removed by others.
20. Back fill all trenches after utility work is complete per plans and specifications.
21. Provide all traffic control, temporary barricades, flagmen, warning devices, etc. necessary for compliance with the University. Maintain egress path in compliance with requirements of North Carolina State Building Code requirements. If open trenches or excavations are left overnight this subcontractor shall provide light stands to properly light the entire trench or excavation area.
22. Subcontractor is responsible for their own dewatering measures required for this scope. Dewatering is considered all natural grade water, water run-off from adjacent site area(s), and water run-off from building/roof areas, as well as “surface or rain water” for all excavations under this agreement. Areas include all pipe trenching.
23. Coordinate elevation of gate valve cover and collar with finish grade elevations.
24. Confirm location of existing underground utilities prior to commencing work. See C-200 for the approximate location of existing underground utilities. The new 6 inch fire main crosses over/under/around many existing underground utilities. Any temporary shoring, bracing, protection, etc. required to ensure that existing underground utilities are not damaged or disturbed during the installation of the fire main shall be included in this subcontract.
25. This Contractor shall include an additional one hundred and fifty installer man hours to be used at the discretion of the Construction Manager.
26. Coordinate with Construction Manager to pre-schedule utility outages required to complete this scope of work. These outage dates shall be submitted to the Owner for approval at a minimum of 3 weeks prior to taking place, and shall not occur without written approval from the Owner. Include necessary overtime to perform work associated with planned utility outages after normal business hours (night time, weekends, and holidays).
27. This Subcontractor shall include 200 additional man hours for fire protection associated work as directed by the Construction Manager.
28. Provide fire caulking for all through wall, and through slab penetrations per UL details, plans and specifications. Provide neat, clean, tightly sealed product. Subcontractor is responsible for the layout, furnishing, and installation of all sleeving requirements under this agreement.
29. All openings required to complete this scope of work shall be created by this subcontractor. This includes core drilling, removal of slab on grade/elevated slabs, etc. Dispose of concrete into dumpster provided by Construction Manager.
30. Subcontractor is aware of the architectural, structural, HVAC, plumbing and electrical components of the building and has taken this into consideration for layout, head locations, and penetrations.
31. Considering the time and effort that it will take to complete the coordination process on this project due to the compressed areas and volume of trade’s materials it will be necessary for this subcontractor to submit shop drawings/calculations ahead of the final completed BIM process.

32. The coordination effort on this job will be extensive and subcontractor is to plan accordingly. It is a mandatory requirement that the designated Project Manager for this subcontractor will be present on all BIM calls and all in person meetings. It will not be acceptable to sub this work out and leave it up to the third party detailer to represent this company on these calls. See below detail on BIM requirements.

General Requirements (BIM) Coordination Drawings

1. This project will utilize Building Information Modeling (BIM) to help facilitate the preparation of coordinated drawings for submission to the Architect. This coordination effort will be led by the Construction Manager with input from all PME & Fire Suppression trades as described below:
2. The Subcontractor shall be responsible for creating 3D and 2D coordination drawings of all vertical and horizontal work required to responsibly coordinate each trade.
3. This subcontractor is specifically required to participate in the 3D coordination drawing process for this project, in order to fully coordinate all work with other trades.
4. While the CM coordination process will be based on the transfer of electronic files for overlay into the CM's-produced building model, the end result of this process is solely to identify areas of conflicts with other trades for resolution on the individual subcontractors' drawings and does not relieve the subcontractor from the responsibility of submitting for CM/Owner/Architect approval scope of work specific shop drawings (based on this process) in accordance with the shop drawing submittal provisions of the project specifications and contract requirements.
5. This subcontractor is to understand the BIM requirements fully as related to this scope of work and make adequate provisions in the base bid amount to participate in this process from inception through completion, maintaining stated milestone dates, at no additional cost above and beyond the base bid amount.
6. The CM shall provide a base line 3D model and 2D base line CAD file to base all coordination documents from. This model shall be produced per the contract construction drawings and specs.
7. The order of precedence for location above the ceilings is to be as follows (i.e. Gravity piping systems will take precedence over non-gravity systems): recessed electrical light fixtures, overhead casework or structural supports (modifications not included), plumbing sloped systems, ductwork and above ceiling mounted equipment, electric cable tray, HVAC piping, plumbing piping (domestic water, and special gases), fire protection, and electrical conduit.
8. All ceiling overhead items must be coordinated to provide accessibility to accommodate lower ceiling heights. This subcontractor shall include all necessary offsets, etc., to provide drop downs or other means of providing more accessible overhead devices. All costs associated with relocating above ceiling overhead to more accessible elevations due to improper coordination efforts shall be borne by this subcontractor. Each sign off set will have a clause that notes that any cost impacts that are a result in a design change are to be submitted within 10 days of signoff. If not received it will not be considered. This subcontractor shall advise their lower tier subs and suppliers downstream of these requirements as the CM will not accept any submissions for adding bends in pipe or duct that were needed in order to successfully coordinate the project. This project is a renovation and these type modifications will be considered the norm on this project and should be accounted for in bidding.
9. An initial "kickoff" meeting will be held prior to the production of any coordination drawings to establish milestone dates, sequencing, resolve major interferences, etc. After that, Weekly Coordination Meetings will be required and scheduled by the CM. These meetings will be mandatory for all trades involved in coordination and will continue until all clashes have been resolved. Each trade/subcontractor shall make each respective team available for one meeting per week (a minimum duration of 4 hours) from notice of award until all work has been completed and approved coordination drawings finalized. Due to the complex nature of this project this could result in 20+ meetings over a 3 month duration for each phase. Coordination efforts are not to take place strictly on the day of the in-person meeting. Coordination efforts shall be ongoing at all times during the week. The intent of the in-person meetings is to evaluate any major conflicts or areas of concern and to collaborate on the drawings generated over the past week.
10. The CM shall publish a list of the required 3D coordination drawings with due dates for each.

11. Subcontractor is responsible for identifying all potential conflicts with building structure systems/elements. Subcontractor shall include all required piping/duct modifications, fittings, etc. to comply with final system layouts with approved coordination drawings and/or to comply with field conditions for connections to existing utilities at no additional cost to Construction Manager.
12. After each subcontractor has fulfilled its obligations it shall return the drawings and electronic files to the CM. The CM shall be responsible for merging the drawings into a single coordination drawing for submittal to the Architect/Engineer for review and comments.
13. Each Subcontractor having input into the production of 3D coordination drawings will be required to sign off on acceptance of the final coordination drawings prior to the commencement of its or other participants work in any given area. All costs attributable to failure of a subcontractor to provide its timely approval of the coordination drawings or failure to cooperate in the production or assembly of input for said drawings shall be borne by such Subcontractor.
14. This coordination activity includes above and below ground work of HVAC, plumbing, fire protection, electronic systems integrator, telecommunications, AV, fire alarm, electrical work, etc.
15. The coordination activity is to include work in all above/below grade, exterior/site, and interior locations.
16. Provide all coordination necessary to be certain that all device outlets are installed level, plumb, and flush with respective finishes. Provide color sample selections to the Architect to review prior to ordering.
17. Include all necessary coordination with the architectural model so as to provide all outlet(s) and raceway openings made by the architectural model. This contractor will be solely responsible for all cost associated with repair and/or replacement of architectural feature damaged due to outlet(s) and/or raceway openings being made by him or his subcontractors and or incorrect coordination and direction provided by this subcontractor.
18. All plans (minimum 1/4" scale) and sections (3/8" scale) shall show building room layouts, structural steel elements, sprayed fireproofing, pipe with insulation, conduit over one and one-half inch (1 1/2"), racks of more than three (3) pipes or conduit, regardless of size; and all ductwork, including insulation thickness, regardless of size.
19. If any subcontractor fails to produce all of its initial 3D coordination drawings within the time allocated, the CM will produce said drawings, and all the costs of producing said drawings will be at the expense of the Subcontractor.
20. The CM will determine the method to be used to resolve interference problems not identified prior to execution of the work. The cost of rework and relocation's directed by the CM will be the responsibility of the Subcontractor having installed affected items. In the event of a dispute, CM's decision will be final.
21. Upon completion of the Coordination Drawings it shall be the responsibility of each subcontractor to provide sufficient copies of the accepted coordination drawings to their respective Superintendents, Foreman's, lower tiered subcontractors and installers in the field. As a minimum each subcontractor shall have (1) set of the accepted coordination drawings on each floor of the project. It is the responsibility of each subcontractor to continually review and communicate with all other Trades in advance of the installation any issues and/or conflicts that require variance from the reviewed and accepted coordinated drawings.
22. Coordination drawings as detailed are included: 2D Coordination drawings showing all horizontal and vertical dimensions of the work shall be prepared by mechanical, electrical, plumbing and fire protection subcontractor's as well as others as required or designated by the Contract Documents, Scope of Work or as directed by the Construction Manager. This information is to be generated directly from the 3D coordinated model. Additionally, each subcontractor is responsible for getting this information into a usable format for their surveyors.
23. Subcontractor to verify equipment layouts can achieve maintenance needs.
24. Subcontractor is responsible for developing all floor and ceiling layout back drop files and shall not assume Architect files will be available for use to develop shop drawings or coordination drawings. As indicated above, any drawings released by the Design Team to the Construction Manager will be made available to the coordinating subcontractors.
25. Completion of the coordination drawing process will be a requirement for pay request release of funds after the allotted specified time period.
26. In general, each coordinating subcontractor shall have minimum of 3 previous projects that they have created 3D Building Information Models for the purposes of coordination. In addition, have a minimum of three (3) persons on staff that are capable of performing the required 3D modeling responsibilities for this project. If

additional manpower is required to maintain schedule, such manpower shall be provided at no cost to the Construction Manager or Owner. Shall a prequalified Subcontractor not meet this requirement, they shall hire a local consultant to complete the work on their behalf; local consultant shall be able to participate in weekly coordination meetings in person (if required.)

27. Upon completion of the MEP coordination efforts, this subcontractor shall continuously maintain as-built drawings as the project progresses. As built drawings shall be distributed to the project team on a monthly basis and shall be updated with changes as issued by the design team. Should drawing changes be issued by the design team and need to be incorporated into the model immediately, Subcontractor agrees to expedite the incorporation of stated drawings into the model as directed by Construction Manager with no overtime charges.
28. At the completion of the submittal process, this Subcontractor shall be responsible to upload all submittal information into the Building Information Model. This includes product data and shop drawings for valves, FCU's, motors, starters, VFD's, AHU's, etc. The format for including this information in the model shall be discussed during the MEP/BIM kickoff meeting.
29. At the completion of the project, as-built drawings shall be completed in the Building Information Model and turned over to the Construction Manager, both in a model compatible with Navisworks as well as 2D CAD drawings.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 15 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Procurement and delivery of fire pump.
6. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-15C**Bid Package Name:** Plumbing Systems**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete a complete Plumbing system, as outlined in **Division 1 General Requirements, Division 22 Plumbing, etc., and the following Specification Sections as relates to this scope of work: 024100 Demolition, 024119 Selective Structure Demolition, 078400 Firestopping**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Provide all tools, equipment, labor, etc. in order to accomplish the demolition portion of plumbing fixtures, and systems. This contractor shall dispose of debris into a dumpster provided by the Construction Manager. Demoeed material shall be cleaned up and disposed of on a daily basis. See Demolition Notes on sheet P-001 for additional demolition information.
3. This contractor shall clearly delineate all items that are part of the plumbing system that are to remain in place prior to demolition.
4. This contractor shall ensure that demolition of the existing plumbing systems shall not damage those portions of any of the systems which are to remain in service, are to be reused, or are to become the property of the Owner.
5. This package is responsible for complete demolition of plumbing systems. BP-02K is responsible for demolition of ceilings and walls. Coordination will be required. It is the responsibility of this subcontractor to demo of any items not defined on the demolition drawings however needed to perform the work of this subcontract. To clarify if it's not shown on the demo drawings however called out for a pipe to be installed/removed on the renovation sheets in this same area, it is this subcontractor's responsibility to gain access to these areas and perform the required demolition. This subcontractor shall NOT disturb items deemed to contain hazardous materials as noted in the asbestos report.
6. Demo includes but is not limited to removal of existing water closets, urinals, lavatory's, chase plumbing piping, water closets, electric water coolers, mop sinks, electric water heaters, shock absorbers, floor drains, etc., see plans and specifications for further details.
7. Reference Architectural drawings in conjunction with the Plumbing drawings for fixture locations.
8. Excavation and backfill for all under slab piping to the required compaction of the project. Subcontractor is responsible for layout and removal of concrete required to install a complete plumbing system. Use a wet saw to remove, place concrete in dumpster provided by others.
9. All cutting of CMU and Concrete that is required for complete removal, and capping of water, vent, and waste piping is included in this Subcontract.
10. No openings shall be made in any structure elements without written approval of the designer. Submit drawings showing locations of all openings required to complete this scope of work.

11. Avoid damaged to concrete reinforcing or anything embedded in the concrete. Prior to cutting any concrete, or drilling for the installation of expansion anchors, threaded rod, fasteners, etc., locate embedded materials such as reinforcing steel, post tensioning cables, plumbing, and electrical conduits using ground penetrating radar. Submit plans showing locations of embedded items to the Construction Manager prior to commencing work. Any damage to existing concrete embedded items, caused by drilling, or cutting into the existing slab, shall be repaired or replaced at the expense of this Subcontractor.
12. Provide a minimum of two hose bibs for temporary water for each building, in each phase of construction.
13. This bid package is responsible to coordinate any access panels required in hard ceilings for access to components of work that cannot be located in accessible ceiling areas. Subcontractor is responsible for coordinating the locations and size of required framed openings with respective trades during the construction of walls, ceilings, and floors. These access panels will be supplied by this Subcontractor, and installed by the selected drywall and framing Subcontractor. All access panels and covers as required by code, or indicated on the mechanical documents are by this Subcontractor. Rated panels are included to match ceiling and wall types. Coordinate with all other trades so as to provide access doors from one manufacturer.
14. All above ceiling materials provided under this project shall be plenum rated, flame spread index and smoke index shall meet requirements noted in the construction documents.
15. Subcontractor shall provide all rough-in and final hook-up of all items requiring plumbing service that are specified in any other section of the Specifications, or Owner furnished, and/or shown on the Drawings.
16. Subcontractor is responsible for final setting and adjusting of all cleanouts and floor drains so that they are flush with finish floor or wall material.
17. Provide and install all plumbing fixtures and equipment per plans and specifications.
18. Provide and install all drinking fountains.
19. Include domestic hot and cold water systems including, but not limited to, all piping, insulation, trap primers, drain piping, fittings, valves, pumps, fixtures, meters, water heaters, balancing valves, wall hydrants, hose bibs, supports, vibration isolation/expansion materials, etc.
20. Subcontractor understands that multiple floors will be occurring simultaneously and said Subcontractor shall provide required supervision and manpower to maintain multiple work areas. Schedule is not constrained which allows the Masonry and Concrete trades to proceed ahead of schedule, or work floors than anticipated in the schedule. Subcontractor agrees to adjust manpower and supervision requirements to meet acceleration potential of the building structure at no additional cost to Contractor (i.e. Plumbing rough-ins shall not be constraint on masonry, concrete, installations).
21. All Plumbing related work identified on plumbing drawings as well as inclusion of those items indicated on architectural drawings identified to be completed by Plumbing Subcontractor under this scope.
22. All layout required to complete this scope of work.
23. All flushing, pressure testing, disinfection/bacteriological (chlorination) chemical flushing, certification tests, etc. under direction of Owner, Engineer, Inspectors, and governmental authority(s) having jurisdiction is included.
24. This Subcontractor shall provide an additional two hundred man hours for plumbing associated work as directed by the Construction Manager.
25. Subcontractor shall insure all plumbing installations have sufficient specified or code required separations.
26. Subcontractor shall layout, install, and strip all required sleeves or block-outs within elements of the structure for the installation of Subcontractor's Work in masonry and cast-in-place concrete locations. Formed openings in masonry and concrete walls are herein included.
27. All Plumbing rough-in activities (i.e. valve tagging, insulation, pipe ID etc., will be complete prior to ceiling grid installation (any rough-in / completion activities creating damage will be appropriately charged for any ceiling grid damage).
28. Verify proper operation of all existing equipment prior to beginning work. Any problems or concerns discovered shall be brought to the attention of the Construction Manager immediately.
29. All wall and floor slab penetrations must be properly core drilled and/or sleeved, collared, escutcheoned when exposed, grouted, fire safe, and fire caulked to meet all applicable codes and specification section 078413. Provide a neat, clean, tightly sealed product. Subcontractor is responsible for the layout, furnishing and installation of all sleeving requirements under this agreement. See details on sheet P-002 for details.

30. All coordination with the Local Code Official shall be handled by this contractor for this scope of work. Inspections through the University should be coordinated through the Construction Manager.
31. Include all lettering, labeling or signage that may be required as part of the above noted divisions.
32. This scope of work will be required to perform a systems training session for the owners representatives per your respective specification sections and any additional requirements in Division 1.
33. The coordination effort on this job will be extensive and subcontractor is to plan accordingly. It is a mandatory requirement that the designated Project Manager for this subcontractor will be present on all BIM calls and all in person meetings. It will not be acceptable to sub this work out and leave it up to the third party detailer to represent this company on these calls. See below on BIM requirements.

General Requirements (BIM) Coordination Drawings

1. This project will utilize Building Information Modeling (BIM) to help facilitate the preparation of coordinated drawings for submission to the Architect. This coordination effort will be led by the Construction Manager with input from all PME & Fire Suppression trades as described below:
2. The Subcontractor shall be responsible for creating 3D and 2D coordination drawings of all vertical and horizontal work required to responsibly coordinate each trade.
3. This subcontractor is specifically required to participate in the 3D coordination drawing process for this project, in order to fully coordinate all work with other trades.
4. While the CM coordination process will be based on the transfer of electronic files for overlay into the CM's-produced building model, the end result of this process is solely to identify areas of conflicts with other trades for resolution on the individual subcontractors' drawings and does not relieve the subcontractor from the responsibility of submitting for CM/Owner/Architect approval scope of work specific shop drawings (based on this process) in accordance with the shop drawing submittal provisions of the project specifications and contract requirements.
5. This subcontractor is to understand the BIM requirements fully as related to this scope of work and make adequate provisions in the base bid amount to participate in this process from inception through completion, maintaining stated milestone dates, at no additional cost above and beyond the base bid amount.
6. The CM shall provide a base line 3D model and 2D base line CAD file to base all coordination documents from. This model shall be produced per the contract construction drawings and specs.
7. The order of precedence for location above the ceilings is to be as follows (i.e. Gravity piping systems will take precedence over non-gravity systems): recessed electrical light fixtures, overhead casework or structural supports (modifications not included), plumbing sloped systems, ductwork and above ceiling mounted equipment, electric cable tray, HVAC piping, plumbing piping (domestic water, and special gases), fire protection, and electrical conduit.
8. All ceiling overhead items must be coordinated to provide accessibility to accommodate lower ceiling heights. This subcontractor shall include all necessary offsets, etc., to provide drop downs or other means of providing more accessible overhead devices. All costs associated with relocating above ceiling overhead to more accessible elevations due to improper coordination efforts shall be borne by this subcontractor. Each sign off set will have a clause that notes that any cost impacts that are a result in a design change are to be submitted within 10 days of signoff. If not received it will not be considered. This subcontractor shall advise their lower tier subs and suppliers downstream of these requirements as the CM will not accept any submissions for adding bends in pipe or duct that were needed in order to successfully coordinate the project. This project is a renovation and these type modifications will be considered the norm on this project and should be accounted for in bidding.
9. An initial "kickoff" meeting will be held prior to the production of any coordination drawings to establish milestone dates, sequencing, resolve major interferences, etc. After that, Weekly Coordination Meetings will be required and scheduled by the CM. These meetings will be mandatory for all trades involved in coordination and will continue until all clashes have been resolved. Each trade/subcontractor shall make each respective team available for one meeting per week (a minimum duration of 4 hours) from notice of award until all work has been completed and approved coordination drawings finalized. Due to the complex nature of this project this could result in 20+ meetings over a 3 month duration for each phase. Coordination efforts are not to take place strictly on the day of the in-person meeting. Coordination efforts shall be ongoing at all times during the week.

- The intent of the in-person meetings is to evaluate any major conflicts or areas of concern and to collaborate on the drawings generated over the past week.
10. The CM shall publish a list of the required 3D coordination drawings with due dates for each.
 11. Subcontractor is responsible for identifying all potential conflicts with building structure systems/elements. Subcontractor shall include all required piping/duct modifications, fittings, etc. to comply with final system layouts with approved coordination drawings and/or to comply with field conditions for connections to existing utilities at no additional cost to Construction Manager.
 12. After each subcontractor has fulfilled its obligations it shall return the drawings and electronic files to the CM. The CM shall be responsible for merging the drawings into a single coordination drawing for submittal to the Architect/Engineer for review and comments.
 13. Each Subcontractor having input into the production of 3D coordination drawings will be required to sign off on acceptance of the final coordination drawings prior to the commencement of its or other participants work in any given area. All costs attributable to failure of a subcontractor to provide its timely approval of the coordination drawings or failure to cooperate in the production or assembly of input for said drawings shall be borne by such Subcontractor.
 14. This coordination activity includes above and below ground work of HVAC, plumbing, fire protection, electronic systems integrator, telecommunications, AV, fire alarm, electrical work, etc.
 15. The coordination activity is to include work in all above/below grade, exterior/site, and interior locations.
 16. Provide all coordination necessary to be certain that all device outlets are installed level, plumb, and flush with respective finishes. Provide color sample selections to the Architect to review prior to ordering.
 17. Include all necessary coordination with the architectural model so as to provide all outlet(s) and raceway openings made by the architectural model. This contractor will be solely responsible for all cost associated with repair and/or replacement of architectural feature damaged due to outlet(s) and/or raceway openings being made by him or his subcontractors and or incorrect coordination and direction provided by this subcontractor.
 18. All plans (minimum 1/4" scale) and sections (3/8" scale) shall show building room layouts, structural steel elements, sprayed fireproofing, pipe with insulation, conduit over one and one-half inch (1 1/2"), racks of more than three (3) pipes or conduit, regardless of size; and all ductwork, including insulation thickness, regardless of size.
 19. If any subcontractor fails to produce all of its initial 3D coordination drawings within the time allocated, the CM will produce said drawings, and all the costs of producing said drawings will be at the expense of the Subcontractor.
 20. The CM will determine the method to be used to resolve interference problems not identified prior to execution of the work. The cost of rework and relocation's directed by the CM will be the responsibility of the Subcontractor having installed affected items. In the event of a dispute, CM's decision will be final.
 21. Upon completion of the Coordination Drawings it shall be the responsibility of each subcontractor to provide sufficient copies of the accepted coordination drawings to their respective Superintendents, Foreman's, lower tiered subcontractors and installers in the field. As a minimum each subcontractor shall have (1) set of the accepted coordination drawings on each floor of the project. It is the responsibility of each subcontractor to continually review and communicate with all other Trades in advance of the installation any issues and/or conflicts that require variance from the reviewed and accepted coordinated drawings.
 22. Coordination drawings as detailed are included: 2D Coordination drawings showing all horizontal and vertical dimensions of the work shall be prepared by mechanical, electrical, plumbing and fire protection subcontractor's as well as others as required or designated by the Contract Documents, Scope of Work or as directed by the Construction Manager. This information is to be generated directly from the 3D coordinated model. Additionally, each subcontractor is responsible for getting this information into a usable format for their surveyors.
 23. Subcontractor to verify equipment layouts can achieve maintenance needs.
 24. Subcontractor is responsible for developing all floor and ceiling layout back drop files and shall not assume Architect files will be available for use to develop shop drawings or coordination drawings. As indicated above, any drawings released by the Design Team to the Construction Manager will be made available to the coordinating subcontractors.
 25. Completion of the coordination drawing process will be a requirement for pay request release of funds after the allotted specified time period.

26. In general, each coordinating subcontractor shall have minimum of 3 previous projects that they have created 3D Building Information Models for the purposes of coordination. In addition, have a minimum of three (3) persons on staff that are capable of performing the required 3D modeling responsibilities for this project. If additional manpower is required to maintain schedule, such manpower shall be provided at no cost to the Construction Manager or Owner. Shall a prequalified Subcontractor not meet this requirement, they shall hire a local consultant to complete the work on their behalf; local consultant shall be able to participate in weekly coordination meetings in person (if required.)
27. Upon completion of the MEP coordination efforts, this subcontractor shall continuously maintain as-built drawings as the project progresses. As built drawings shall be distributed to the project team on a monthly basis and shall be updated with changes as issued by the design team. Should drawing changes be issued by the design team and need to be incorporated into the model immediately, Subcontractor agrees to expedite the incorporation of stated drawings into the model as directed by Construction Manager with no overtime charges.
28. At the completion of the submittal process, this Subcontractor shall be responsible to upload all submittal information into the Building Information Model. This includes product data and shop drawings for valves, FCU's, motors, starters, VFD's, AHU's, etc. The format for including this information in the model shall be discussed during the MEP/BIM kickoff meeting.
29. At the completion of the project, as-built drawings shall be completed in the Building Information Model and turned over to the Construction Manager, both in a model compatible with Navisworks as well as 2D CAD drawings.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1:**Exclusions to this Scope of Work:**

1. N/A

Bid Package Number: BP-15D**Bid Package Name:** HVAC Systems and Controls**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all HVAC Work as outlined in **Division 1 General Requirements, Division 23 Heating Ventilation and Air Conditioning, etc. and the following Specification Sections as it applies to this scope of work: 024100 Demolition, 078400 Firestopping, Division 26 Electrical, 270528 Pathways for Communications Systems, 283111 Digital Addressable Fire Alarm System**, respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Testing, Adjusting, and Balancing (TAB) for HVAC is not included in this Subcontract, and will be by another Subcontractor. Coordinate all work closely with the Test and Balance Contractor. This Subcontractor shall provide employees to support the Test and Balance Contractor while Test and Balance work is taking place.
3. The Construction Documents are diagrammatic only. This Subcontractor shall include necessary provisions so that the design intent is achieved without additional cost to the Owner.
4. It is this Subcontractors responsibility to field verify all existing equipment locations, ductwork and piping. Any discrepancies between existing conditions and mechanical plans should be brought to the attention of the Construction Manager immediately after finding.
5. Field conditions may be encountered during construction that are not clearly shown in the construction documents. These conditions may require an extension of, or relocation of existing systems or equipment that are not specifically shown on the drawings, but are required to meet the design intent, or keep existing systems in operation. Include provisions for such work as would usually be expected in an existing building of this age and type in the base bid
6. The mechanical contractor shall coordinate with the Owner and Construction Manager and turn over any existing equipment determined to be in good working order or any noted equipment the Owner has designated to be remitted to them. Any equipment turned over to the Owner shall be carefully removed so not to damage and shall be stored and protected on site until complete turn over to Owner. All equipment shall be cleaned, tagged and inventory list provided. A list of equipment that needs to be removed and returned to the Owner will be listed in an addendum.
7. Included the remove existing louvers in the second floor mechanical rooms of Denny and Barnard so that air handling units, fans, etc., can be detached, and removed from the building through those openings by this Subcontractor. Replacement AHU's, fans, etc. will need to be brought into the building through these same openings by this Subcontractor. Reinstall louvers once work is complete.
8. After louvers are reinstalled, replace corroded, or damaged sections.
9. Submit a hoisting/loading plan to the Construction Manager prior to delivering equipment to the jobsite. This Subcontractor shall take extreme care to protect existing building, and site elements from damage. The cost to

- repair any damage to the building, building elements, or hardscape resulting from loading and unloading of equipment will be the responsibility of this Subcontractor.
10. Include all rigging, hoisting, unloading, etc., for all material equipment required to complete this scope of work.
 11. Clean all new and existing ductwork to comply with SMACNA Duct Cleanliness for new construction, intermediate level.
 12. All above ceiling materials provided under this project shall be plenum rated, flame spread index and smoke index shall meet requirements noted in the construction documents.
 13. Reference detail 5 on M-503 for the electrical requirements to be provided by this Subcontractor.
 14. Provide all tools, equipment, labor, etc. in order to accomplish the demolition portion of mechanical systems. This contractor shall dispose of non-hazardous debris into a dumpster provided by the Construction Manager.
 15. This contractor shall coordinate the demolition of existing systems by the Demolition and Hazardous Materials Abatement contractor for items shown on the AD drawings. This contractor shall clearly delineate all items that are part of the HVAC system that are to remain in place. Reference Hazardous Materials Report dated 11/20/2015 for additional information.
 16. Any equipment being demolished containing refrigerant shall be handled according to section 608 of the EPA clean air act by this Subcontractor. This work shall be properly supervised by an EPA certified technician. All material or equipment containing refrigerant shall be removed by this subcontractor per plans and specifications.
 17. This contractor shall ensure that demolition of the existing mechanical systems shall not damage those portions of any of the systems which are to remain in service, are to be reused, or are to become the property of the Owner.
 18. The work of this package will include any and all work as necessary to take the mechanical system out of commission and/or to take whatever steps as may be needed for the Demo Contractor and other trades at the start of the project. Portions of the existing building mechanical system must be maintained during the course of this work. It is the responsibility of this subcontractor to maintain a fully operational mechanical system for the existing HVAC system shown to remain.
 19. This package is responsible for demolition of HVAC systems. BP-02K is responsible for removing ceilings and walls. All fixtures, wiring, piping, hangers, panels, terminal units, piping, ductwork, dampers, supports, controls, associated control wiring, etc., within the noted project boundary. Refer to the demolition notes for specific requirements. Coordination will be required. It is the responsibility of this subcontractor to be responsible for demo of any items not defined on the demolition drawings however needed to perform the work of this subcontract. To clarify if it's not shown for the demo sub on the demo drawings however called out for a pipe to be installed/removed on the Mechanical sheets in this same area, it is this subcontractor's responsibility to gain access to these areas. This subcontractor shall NOT cut any holes in items deemed to contain hazardous materials as noted in the asbestos report.
 20. Reference MD-201 for demolition required on the roof. This Subcontractor is responsible for all demolition and new work shown on this plan. Once fans and roof curbs are removed, this Subcontractor shall provide permanent replacement roofing for a water tight condition that compatible with existing roof. Coordinate this work with the Construction Manager for roofing requirements.
 21. Prior to performing work on the roof, install 2 inch thick rigid insulation, covered in plywood, for complete roof protection. This protection should include walkways, and completely cover and protect any areas that need to be accessed for work on the roof.
 22. Include the expedited delivery of shop drawings, product data, submittals, etc. for long lead time items. Include expedited delivery of AHU's.
 23. This subcontractor shall provide a complete means of temporary heating/cooling for the complete duration of the project. The existing HVAC system shall not be utilized as the temporary means of heating/cooling. This Subcontractor shall provide protection of equipment shown to remain in place and isolate the units from construction and dust producing activities.
 24. This contractor shall cap all existing in floor and below floor ductwork so that it is flush with the finish floor. All caps shall be made watertight and shall be sealed to prevent leaks between the ductwork and adjacent concrete encasement. This shall apply to all below floor duct locations. Any chipping, cutting, or removal of existing building elements that is required to complete this work shall be by this Subcontractor.

25. All interface with the Fire Alarm system is included. Smoke detectors located inside of the HVAC system will be supplied by others and installed by this Subcontractor.
26. All necessary core drilling, and saw cutting of concrete, drywall, and CMU walls, for all penetrations, and openings required to complete this scope of work.
27. Avoid damaged to concrete reinforcing or anything embedded in the concrete. Prior to cutting any concrete, or drilling for the installation of expansion anchors, threaded rod, fasteners, etc., locate embedded materials such as reinforcing steel, post tensioning cables, plumbing, and electrical conduits using ground penetrating radar. Submit plans showing locations of embedded items to the Construction Manager prior to commencing work. Any damage to existing concrete embedded items, caused by drilling, or cutting into the existing slab, shall be repaired or replaced at the expense of this Subcontractor.
28. Conduit raceway for connection to the generator will be provided by others. Include all wiring, final connections, etc. to ensure generator control point/BAS monitoring is provided for the generator. Coordinate this work with the Electrical Contractor and Construction Manager.
29. Subcontractor to remove all concrete SOG, or elevated deck as needed to provide a complete HVAC system per plans and specifications. Use wet saw for cutting SOG or elevated decks. Remove concrete and dispose in dumpster provided by others.
30. Include the fire stopping of all penetrations through fire-rated assemblies. See pipe and ductwork penetration notes on sheet M-502 for details. Provide neat, clean, tightly sealed product. Subcontractor is responsible for the layout, furnishing, and installation of all sleeving requirements under this agreement.
31. This bid package is responsible to coordinate any access panels required in hard ceilings for access to components of work that cannot be located in accessible ceiling areas. Subcontractor is responsible for coordinating the locations and size of required framed openings with respective trades during the construction of walls, ceilings, and floors. These access panels will be supplied by this Subcontractor, and installed by the selected drywall and framing Subcontractor. All access panels and covers as required by code, or indicated on the mechanical documents are by this Subcontractor. Rated panels are included to match ceiling and wall types. Coordinate with all other trades so as to provide access doors from one manufacturer.
32. All duct, duct insulation, exhaust fans, grilles, fire dampers, VFDs, controls, access doors, etc. for a complete exhaust & duct exhaust system.
33. Maintenance of filters during construction usage – including filter media over exhaust/return grills. Change out once a week or as necessary. Provide brand new filters prior to final turnover to the Owner. All duct should come to the job with ends wrapped and once installed shall be wrapped again and not left open.
34. All fire dampers as required. Ensure access is provided for dampers or it will be this subcontractor's responsibility to change out to meet requirements in the documents regarding access.
35. This Subcontractor shall coordinate with the Owners Commissioning Agent and provide all necessary time, materials, and procedures required for a fully commissioned project.
36. This subcontractor must closely follow the requirements in other sections as noted as other related sections in the summary to ensure that all "by mc" notes are picked up as these are by this subcontractor.
37. The HVAC contractor must include the costs for starters, disconnects, and load side wiring per spec. Coordination with BP-15A is required.
38. This Contractor shall include additional one hundred lineal feet of one hour UL rated fire caulking to be used at the discretion of the Construction Manager.
39. This scope of work will be required to perform a systems training session for the owners representatives per your respective specification sections and any additional requirements in Division 1.
40. This subcontractor is responsible for providing any signage, lettering, labeling, tags, color coded insulation, etc. as may be in the project specifications or plans for this scope of work.
41. Early startup of the mechanical equipment shall in no way encroach upon any warranty requirements of the Contract Documents.
42. A complete and operational DDC control system (BAS) shall be installed in accordance with the Specifications and as intended on the plans. The new building BAS shall be integrated with the Owners existing system. This Subcontractor shall include all necessary hardware and software to fully integrate the new system with the existing system, see specification section 230900 for additional requirements.
43. Provide all control equipment, devices, programming, raceways, wiring, connections, start-up, testing, etc.

44. Provide all interface and controls described in the division 23 and 26 contract drawings identified to be completed by Mechanical Contractor/HVAC.
45. It is understood that this system is to be brought online as soon as physically possible and it will be utilized during the final few months of construction. It is the responsibility of this subcontractor to provide temp measures to provide this conditioned air well in advance of completion of the project so that finishes can commence.
46. This subcontractor responsible for providing and installing roof curbs. Coordinate size and location of curbing with roofing contractor for flashing requirements.
47. The coordination effort on this job will be extensive and subcontractor is to plan accordingly. It is a mandatory requirement that the designated Project Manager for this subcontractor will be present on all BIM calls and all in person meetings. It will not be acceptable to sub this work out and leave it up to the third party detailer to represent this company on these calls. See below on BIM requirements.
48. Contractor shall include one hundred and fifty additional man hours for mechanical associated work as directed by the Construction Manager.
49. Provide all new concrete housekeeping pads that will be utilized for HVAC equipment.
50. Provide and install all types of control dampers, grills, diffusers, flues, exhaust piping, and louvers. Include all architectural louvers, and blank off of existing louvers. Ref. Architectural drawings in conjunction with the Mechanical drawings. Include all insect and or bird screens, anchors, anchorage devices, sills, etc.
51. Include any costs for expediting shop drawings and materials to the site as required to avoid work delays.
52. Subcontractor shall coordinate with Subcontractors to assure provision of adequate contacts and relays required for proper operation/interface between systems
53. Include recovering Freon from HVAC units for proper disposal prior to demolition activities.
54. All Construction Waste Management and Disposal requires in Specification Section 017419 are included in this Scope of Work.
55. Subcontractor shall provide cleaning, certification, and start-up in whole or in part to meet project schedule on a per floor level basis for each phase of work.

General Requirements (BIM) Coordination Drawings

1. This project will utilize Building Information Modeling (BIM) to help facilitate the preparation of coordinated drawings for submission to the Architect. This coordination effort will be led by the Construction Manager with input from all PME & Fire Suppression trades as described below:
2. The Subcontractor shall be responsible for creating 3D and 2D coordination drawings of all vertical and horizontal work required to responsibly coordinate each trade.
3. This subcontractor is specifically required to participate in the 3D coordination drawing process for this project, in order to fully coordinate all work with other trades.
4. While the CM coordination process will be based on the transfer of electronic files for overlay into the CM's-produced building model, the end result of this process is solely to identify areas of conflicts with other trades for resolution on the individual subcontractors' drawings and does not relieve the subcontractor from the responsibility of submitting for CM/Owner/Architect approval scope of work specific shop drawings (based on this process) in accordance with the shop drawing submittal provisions of the project specifications and contract requirements.
5. This subcontractor is to understand the BIM requirements fully as related to this scope of work and make adequate provisions in the base bid amount to participate in this process from inception through completion, maintaining stated milestone dates, at no additional cost above and beyond the base bid amount.
6. The CM shall provide a base line 3D model and 2D base line CAD file to base all coordination documents from. This model shall be produced per the contract construction drawings and specs.
7. The order of precedence for location above the ceilings is to be as follows (i.e. Gravity piping systems will take precedence over non-gravity systems): recessed electrical light fixtures, overhead casework or structural supports (modifications not included), plumbing sloped systems, ductwork and above ceiling mounted equipment, electric cable tray, HVAC piping, plumbing piping (domestic water, and special gases), fire protection, and electrical conduit.

8. All ceiling overhead items must be coordinated to provide accessibility to accommodate lower ceiling heights. This subcontractor shall include all necessary offsets, etc., to provide drop downs or other means of providing more accessible overhead devices. All costs associated with relocating above ceiling overhead to more accessible elevations due to improper coordination efforts shall be borne by this subcontractor. Each sign off set will have a clause that notes that any cost impacts that are a result in a design change are to be submitted within 10 days of signoff. If not received it will not be considered. This subcontractor shall advise their lower tier subs and suppliers downstream of these requirements as the CM will not accept any submissions for adding bends in pipe or duct that were needed in order to successfully coordinate the project. This project is a renovation and these type modifications will be considered the norm on this project and should be accounted for in bidding.
9. An initial “kickoff” meeting will be held prior to the production of any coordination drawings to establish milestone dates, sequencing, resolve major interferences, etc. After that, Weekly Coordination Meetings will be required and scheduled by the CM. These meetings will be mandatory for all trades involved in coordination and will continue until all clashes have been resolved. Each trade/subcontractor shall make each respective team available for one meeting per week (a minimum duration of 4 hours) from notice of award until all work has been completed and approved coordination drawings finalized. Due to the complex nature of this project this could result in 20+ meetings over a 3 month duration for each phase. Coordination efforts are not to take place strictly on the day of the in-person meeting. Coordination efforts shall be ongoing at all times during the week. The intent of the in-person meetings is to evaluate any major conflicts or areas of concern and to collaborate on the drawings generated over the past week.
10. The CM shall publish a list of the required 3D coordination drawings with due dates for each.
11. Subcontractor is responsible for identifying all potential conflicts with building structure systems/elements. Subcontractor shall include all required piping/duct modifications, fittings, etc. to comply with final system layouts with approved coordination drawings and/or to comply with field conditions for connections to existing utilities at no additional cost to Construction Manager.
12. After each subcontractor has fulfilled its obligations it shall return the drawings and electronic files to the CM. The CM shall be responsible for merging the drawings into a single coordination drawing for submittal to the Architect/Engineer for review and comments.
13. Each Subcontractor having input into the production of 3D coordination drawings will be required to sign off on acceptance of the final coordination drawings prior to the commencement of its or other participants work in any given area. All costs attributable to failure of a subcontractor to provide its timely approval of the coordination drawings or failure to cooperate in the production or assembly of input for said drawings shall be borne by such Subcontractor.
14. This coordination activity includes above and below ground work of HVAC, plumbing, fire protection, electronic systems integrator, telecommunications, AV, fire alarm, electrical work, etc. within five feet (5') of the building line.
15. The coordination activity is to include work in all above/below grade, exterior/site, and interior locations.
16. Provide all coordination necessary to be certain that all device outlets are installed level, plumb, and flush with respective finishes. Provide color sample selections to the Architect to review prior to ordering.
17. Include all necessary coordination with the architectural model so as to provide all outlet(s) and raceway openings made by the architectural model. This contractor will be solely responsible for all cost associated with repair and/or replacement of architectural feature damaged due to outlet(s) and/or raceway openings being made by him or his subcontractors and or incorrect coordination and direction provided by this subcontractor.
18. All plans (minimum 1/4” scale) and sections (3/8” scale) shall show building room layouts, structural steel elements, sprayed fireproofing, pipe with insulation, conduit over one and one-half inch (1½”), racks of more than three (3) pipes or conduit, regardless of size; and all ductwork, including insulation thickness, regardless of size.
19. If any subcontractor fails to produce all of its initial 3D coordination drawings within the time allocated, the CM will produce said drawings, and all the costs of producing said drawings will be at the expense of the Subcontractor.
20. The CM will determine the method to be used to resolve interference problems not identified prior to execution of the work. The cost of rework and relocation’s directed by the CM will be the responsibility of the Subcontractor having installed affected items. In the event of a dispute, CM’s decision will be final.

21. Upon completion of the Coordination Drawings it shall be the responsibility of each subcontractor to provide sufficient copies of the accepted coordination drawings to their respective Superintendents, Foreman's, lower tiered subcontractors and installers in the field. As a minimum each subcontractor shall have (1) set of the accepted coordination drawings on each floor of the project. It is the responsibility of each subcontractor to continually review and communicate with all other Trades in advance of the installation any issues and/or conflicts that require variance from the reviewed and accepted coordinated drawings.
22. Coordination drawings as detailed are included: 2D Coordination drawings showing all horizontal and vertical dimensions of the work shall be prepared by mechanical, electrical, plumbing and fire protection subcontractor's as well as others as required or designated by the Contract Documents, Scope of Work or as directed by the Construction Manager. This information is to be generated directly from the 3D coordinated model. Additionally, each subcontractor is responsible for getting this information into a usable format for their surveyors.
23. Subcontractor to verify equipment layouts can achieve maintenance needs.
24. Subcontractor is responsible for developing all floor and ceiling layout back drop files and shall not assume Architect files will be available for use to develop shop drawings or coordination drawings. As indicated above, any drawings released by the Design Team to the Construction Manager will be made available to the coordinating subcontractors.
25. Completion of the coordination drawing process will be a requirement for pay request release of funds after the allotted specified time period.
26. In general, each coordinating subcontractor shall have minimum of 3 previous projects that they have created 3D Building Information Models for the purposes of coordination. In addition, have a minimum of three (3) persons on staff that are capable of performing the required 3D modeling responsibilities for this project. If additional manpower is required to maintain schedule, such manpower shall be provided at no cost to the Construction Manager or Owner. Shall a prequalified Subcontractor not meet this requirement, they shall hire a local consultant to complete the work on their behalf; local consultant shall be able to participate in weekly coordination meetings in person (if required.)
27. Upon completion of the MEP coordination efforts, this subcontractor shall continuously maintain as-built drawings as the project progresses. As built drawings shall be distributed to the project team on a monthly basis and shall be updated with changes as issued by the design team. Should drawing changes be issued by the design team and need to be incorporated into the model immediately, Subcontractor agrees to expedite the incorporation of stated drawings into the model as directed by Construction Manager with no overtime charges.
28. At the completion of the submittal process, this Subcontractor shall be responsible to upload all submittal information into the Building Information Model. This includes product data and shop drawings for valves, FCU's, motors, starters, VFD's, AHU's, etc. The format for including this information in the model shall be discussed during the MEP/BIM kickoff meeting.
29. At the completion of the project, as-built drawings shall be completed in the Building Information Model and turned over to the Construction Manager, both in a model compatible with Navisworks as well as 2D CAD drawings.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.
3. Submit to the Construction Manager Subcontractor's project safety plan prior to commencing Work on site to include tiered subcontractor plan (if applicable).
4. Submit to the Construction Manager Subcontractor's close out documents upon request by the Construction Manager.

5. Submit to the Construction Manager a listing of all subcontractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1:**Exclusions to this Scope of Work:**

1. N/A

Bid Package Number: BP-15E**Bid Package Name:** HVAC Testing and Balancing**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Subcontractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all HVAC Testing and Balancing Work as outlined in **Division 1 General Requirements, Section 230593 Testing, Adjusting, and Balancing for HVAC, and the following Divisions and Specification Sections as it applies to this scope of work: Division 23 Heating Ventilation and Air Conditioning, Division 27 Communications,** respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Provide complete and approved Testing, Adjusting, and Balancing for the HVAC system in its entirety per Specification Section 23059, plans, and related documents.
3. Provide a pre-demolition test and balance report on the existing systems indicated to remain. Submittals and the procedure plans for this pre-demolition test shall be the top priority after receipt of notice to proceed.
4. Meet with Owner's and Architect's representatives on approval of TAB strategies and procedures plan to develop a mutual understanding of the details. Ensure the participation of TAB team members, equipment manufacturers' authorized service representatives, HVAC controls installers, and other support personnel. Provide 10 days advance notice of scheduled meeting time and location.
5. Subcontractor may need to return during seasonal changes if full loading of a system operational cannot be simulated during final TAB season at no cost to Contractor.
6. Within 90 days of completing TAB, perform additional testing and balancing to verify that balanced conditions are being maintained throughout and to correct unusual conditions.
7. Coordination of work with Construction Manager, Commissioning Agent, HVAC Subcontractor, and other trades as necessary to provide a complete and functional installation of the work.
8. Construction activities will occur on both levels, one and two simultaneously, for each phase of construction. Include necessary man power to perform test and balance activities on the first and second floor concurrently. Phase 1 of construction is scheduled for a six day work week. Include necessary overtime, to perform test and balance activities after normal business hours, and weekends.
9. All coordination with the Inspections shall be handled by this contractor for this scope of work.
10. Provide initial Construction Phase Reports, Final Reports, and Status Reports as required in the Project Documents. Separate reports should be prepared for each individual phase, building, or site visit.
11. Proper personnel on hand during all Construction, Commissioning, and inspections related to this scope.
12. It is understood that this HVAC system is to be brought online as soon as physically possible and it will be utilized during the final few months of construction. It is the responsibility of this subcontractor to perform a full test and balance in unification with the Project Schedule to allow sufficient time for deficiencies to be corrected, and TAB to be finalized, so that the Owner can occupy a building with a fully tested, adjusted, and balanced HVAC System.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Pre-demolition TAB on the existing systems indicated to remain.
2. Within 5 days from Contractor's Notice to Proceed, submit 4 copies of evidence that TAB firm and this Project's TAB team members meet the qualifications specified in "Quality Assurance" Article.
3. Within 20 days from Contractor's Notice to Proceed, submit 4 copies of the Contract Documents review report as specified.
4. Submit to the Construction Manager TAB plan and all submittals within 30 days of receipt of Letter of Intent.
5. Within 40 days from Notice to Proceed, submit 4 copies of TAB strategies and step-by-step procedures as specified. Include a complete set of report forms intended for use on this Project

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. N/A

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. N/A

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

1. N/A

Exclusions to this Scope of Work:

1. N/A

Bid Package Number: BP-16A**Bid Package Name:** Electrical & Fire Alarm**Introduction:**

Furnish all labor, material, layout, tools, equipment, accessories, hoisting, temporary protection for own work, coordination of own work and interaction with the work of others, home office and field administration, scheduling, project management, field supervision, daily clean-up, engineering and layout, quality control, safety, and checkout required to complete the Work as indicated on the Drawings, Specifications and Project Manual, Addendums, and as outlined below as applicable to the Project.

Intent:

In general, this Bid Package is comprehensive to specific CSI Division Work and related Work as referenced, indicated on, or implied by the Project Drawings, Specifications and Project Manual. Contractor acknowledges that the following Scope of Work detail is provided as a courtesy and must be used in conjunction with all Project Documents. Scope of Work detail listed is not intended to describe a complete and final work scope. It is provided as a summary overview only.

Scope of Work Summary:

Furnish all labor, material, equipment, and competent supervision required to complete all Electrical Work, Fire Alarm, Lighting, Special System, and Telecommunications, as outlined in **Division 1 General Requirements, Division 23, 26, 27, & 28 etc., and the following Specification Sections as it applies to this scope of work: 078400 Firestopping, 312316 Trenching for Site Utilities, 024100 Demolition, 024119 Selective Structure Demolition,** respectively, for work in accordance with all Contract Documents as listed in Schedule B of this Subcontract and all work to be performed. This Bid Package includes, but is not specifically limited to:

1. This Bid Package includes requirements as detailed in BP001 General Inclusions as pertains to this scope of work.
2. Field conditions may be encountered during construction that are not clearly shown in the construction documents. These conditions may require an extension of, or relocation of existing systems or equipment that are not specifically shown on the drawings, but are required to meet the design intent, or keep existing systems in operation. Include provisions for such work as would usually be expected in an existing building of this age and type in the base bid.
3. Prior to demolition and abatement provide all work as necessary to take the electrical system out of commission and/or to take whatever steps as may be needed to de-energize the system so it is safe for the Demo Contractor and other trades at the start of the project.
4. Clearly identify fire alarm raceway, wires, devices, etc. that must be maintained and remain operational. Existing FACP to remain active and operational at all times prior to activation of the new fire alarm system. Alterations that are required for keeping the fire alarm system operational while allowing for demolition, and new construction shall be included in this Subcontract. Coordinate this work with UNC Charlotte facilities, and Construction Manager.
5. Include power for and installation of Owner furnished projection screens. Coordinate requirements and final locations with Owner and Construction Manager.
6. All above ceiling materials provided under this project shall be plenum rated, flame spread index and smoke index shall meet requirements noted in the construction documents.
7. Contractor shall be responsible for ALL empty conduits, junction boxes, raceways, etc. designated or required to remain for future/existing use, they shall be tagged, sealed/fire sealed and identified for use where they terminate.
8. Coordinate with Construction Manager to pre-schedule utility outages, all planned utility outages shall include provisions for proper back-up of all life safety, and mechanical systems and include an approved fire watch program as required by local fire Marshall.
9. Provide and coordinate all necessary relocations, tie-ins, shutdowns & re-commissioning of electrical, and fire alarm systems with the Owner and Construction Manager to ensure no disruption to the existing system occurs. Include premium time for all such coordinated interruptions as required to complete this work. The necessity of

performing this work during non-regular or non-peak hours, as directed, will not be grounds for additional compensation.

10. All electrical site work shown on sheet E-009 shall take place during phase 1 of construction. The routing of power for the new fire pump in Denny requires work to be performed in occupied buildings, Macy and Barnard. Work in occupied buildings should be priced as overtime work, after hours, weekends, and holidays. Ceiling tiles required to be removed to allow for new work to be installed in the occupied buildings will be removed and replaced by BP-09B. Protection of surrounding finishes, and clean up for this work shall be by this Contractor.
11. Include a complete raceway, conduit (s), etc., from the existing generator to the BAS control panel (s). Control wiring will be provided by others. Coordinate requirements, locations, work, etc., with HVAC Contractor and Construction Manager.
12. Include a complete raceway, conduit (s), etc. form the existing chiller back to the BAS control panel (s). Control wiring will be provided by others. Coordinate locations, work, etc., with HVAC Contractor and Construction Manager.
13. All work required for connecting emergency power from the existing generator to the fire pump, fire pump controller, BAS controls, etc. Include all NETA testing prior to startup.
14. This contractor shall coordinate with the Owner and Construction Manager and turn over any existing equipment determined to be in good working order or any noted equipment the Owner has designated to be remitted to them. Any equipment turned over to the Owner shall be carefully removed so not to damage and shall be stored and protected on site until complete turn over to Owner. All equipment shall be cleaned, tagged and inventory list provided.
15. Provide all tools, equipment, labor, etc. in order to accomplish the demolition portion of electrical, fire alarm, special systems, and telecommunication systems. This contractor shall dispose of debris into a dumpster provided by the Construction Manager. Demoeed material shall be cleaned up and disposed of on a daily basis. See Demolition Notes on sheet E-001 for additional demolition notes.
16. This contractor shall clearly delineate all items that are part of the Electrical system that are to remain in place prior to demolition. Ensure that demolition of the existing electrical systems shall not damage those portions of any of the systems which are to remain in service, are to be reused, or are to become the property of the Owner.
17. This package is responsible for complete demolition of Electrical and Fire Alarm systems. BP-02K is responsible for demolition of ceilings and walls. Coordination will be required. It is the responsibility of this Contractor to be responsible for demo of any items not defined on the demolition drawings however needed to perform the work of this subcontract. To clarify if it's not shown for the demo sub on the demo drawings however called out for an electrical fixture to be installed/removed on the Electrical sheets in this same area, it is this Contractor's responsibility to gain access to these areas and perform the required demolition. This Contractor shall NOT cut any holes in items deemed to contain hazardous materials as noted in the asbestos report.
18. Contractor understands that work on multiple floors, and exterior work will be occurring simultaneously and this Contractor shall provide required supervision and manpower to maintain multiple work areas for each phase of construction.
19. Reference E-009 for demolition required on site. This Contractor is responsible for all demolition shown on this plan. Any existing service, or equipment noted to be removed on this plan shall be removed by this Contractor. Coordinate this work with the Construction Manager prior to starting.
20. Remove all existing conduit and conductors from ALL existing powered devices and re-circuit as indicated. Any existing electrical service, conduit, fixtures, and associated devices that are shown to remain in place, or be turned over to the Owner and are demoeed or damaged shall be replaced by this this Contractor.
21. Disconnect connection to existing supply fans and reuse for connection to new fan motor.
22. Remove all mechanical associated wiring, conduit, and disconnecting means back to the source for all units being shown to be removed on the Mechanical drawings.
23. Partial and total demolition of portions of the existing electrical system shall be performed along with all necessary modifications to that portion of the existing building which shall remain so that it continues to function unaffected by the electrical demolition and associated new construction.
24. The work of this package will include any and all work as necessary to take the electrical system out of commission and/or to take whatever steps as may be needed to de-energize the system so it is safe for the Demo Contractor and other trades at the start of the project.

25. Contractor to remove all concrete SOG, or elevated deck as needed to provide a complete electrical system per plans and specifications. Use wet saw for cutting SOG or elevated decks. Remove concrete and dispose in dumpster provided by others. Excavation/backfill of subgrade to meet compaction requirements is included.
26. Prior to cutting any concrete, or drilling for the installation of expansion anchors, threaded rod, fasteners, etc., locate embedded materials such as reinforcing steel, post tensioning cables, plumbing, and electrical conduits using ground penetrating radar. Submit plans showing locations of embedded items to the Construction Manager prior to commencing work. Any damage to existing concrete embedded items, caused by drilling, or cutting into the existing slab, shall be repaired or replaced at the expense of this Contractor.
27. It is the intent of this scope to utilize the existing power on each floor for temporary means. This package to ensure power can be maintained at the floor level for general construction work. Temporary power to be provided by this scope of work. It will be the responsibility of this Contractor to provide sub panels if need be to provide sufficient power throughout the project, GFCI protected, and per OSHA standards. This scope of work to provide and install temporary lighting until permanent light fixtures are installed and working. Maintenance of temporary lighting during the course of construction is by this Contractor. This package to remove and dispose of temporary fixtures.
28. This Contractor shall ensure power is provided for temporary heating/cooling units for each phase of construction, and for the complete duration of the project.
29. This Contractor shall be responsible for obtaining and providing temporary power and lighting as needed for each phase of construction. Temporary lighting shall meet OSHA standards. Include maintenance and replacement of all temporary light bulbs.
30. Provide two (2) 208v, 50 amp breakers and outlets at each floor level, in each building, for each phase of construction. Provide two safely lighted entrance into the building structure in a location determined by the Construction Manager.
31. Include one exterior weatherproof light for each phase of construction in a location determined by the Construction Manager.
32. Supply fire alarm detectors to be installed in the HVAC system to BP-15D for installation.
33. All coordination with the Inspections shall be handled by this contractor for this scope of work.
34. Proper personnel on hand during all inspections related to this scope.
35. All necessary core drilling, and saw cutting of concrete, drywall, and CMU walls required to complete this scope of work, for all required penetrations and openings.
36. Provide and install any plywood backing in electrical rooms required to complete this scope of work. All plywood shall be fire resistant.
37. Include the firestopping of all penetrations through fire-rated assemblies. See details on sheet E-007 for details. Provide neat, clean, tightly sealed product. Contractor is responsible for the layout, furnishing, and installation of all sleeving requirements under this agreement.
38. This bid package is responsible to coordinate any access panels required in hard ceilings for access to components of work that cannot be located in accessible ceiling areas. Contractor is responsible for coordinating the locations and size of required framed openings with respective trades during the construction of walls, ceilings, and floors. These access panels will be supplied by this Contractor, and installed by the selected drywall and framing Contractor. All access panels and covers as required for this scope of work, and by code, or indicated on the contract documents are by this Contractor. Rated panels are included to match ceiling and wall types. Coordinate with all other trades so as to provide access doors from one manufacturer.
39. Contractor shall provide all necessary and required materials, management and field labor, ladders, lifts, radios, safety devices (PPE). Commissioning documentation to include but not limited to, all complete and correct pre-function test reports, all training records-audio, video, and written, coordination meetings, all assistance necessary to accomplish a complete and Final Commissioning Activity per the contract documents. Be advised that should for any reason this activity require premium time and or night/weekend/holiday scheduling this requirement shall be met without any additional cost to the project. Be advised that per-function and or final Commissioning Activities that are confirmed to be deficient and or delinquent by cause of this Contractor will be subject to responsibility assessment and subsequent cost to be paid by this Contractor.
40. This Contractor must closely follow the requirements in other sections as noted as other related sections in the summary to ensure that all “by EC” notes are picked up as these are by this Contractor.

41. This scope of work will be required to perform a systems training session for the owners representatives per your respective specification sections and any additional requirements in Division 1.
42. This Contractor is responsible for providing any signage, lettering, labeling, tags, color coded insulation, etc. as may be in the project specifications or plans.
43. It is understood that warranties do not start from date of shipment or installation of equipment. They start from the date of Beneficial Occupancy. Early startup of the fire alarm, and electrical equipment, shall in no way encroach upon any warranty requirements of the Contract Documents.
44. Contractor shall provide all materials, labor, supports and appurtenances for complete raceway/outlet system(s) and electrical circuitry/cabling (as required per the contract documents) for all systems included in this scope of work, including but not limited to power service/distribution, power outlets distribution, site/exterior/interior lighting, lighting outlets distribution, lighting controls, fire alarm, special systems, and telecommunications. Contractor shall provide very close coordination with Division 27 & 28 for its electrical requirements.
45. Contractor shall coordinate and mutually perform test(s) and confirm correctness of all line voltages with the project HVAC Controls Contractor prior to energizing any control equipment and/or components. The details of these events shall be recorded in each respective Contractor Daily Report. Failure to perform and record these activities may be considered cause for this Contractor to assume responsibility for any related claims.
46. Contractor to provide all excavation, trenching, backfilling, compaction and electrical appurtenances as required for the work of this subcontract. This specifically includes all rock excavation and excavation and backfill for unclassified soil, if applicable, for all electrical work under the building pad and site areas. All testing of the compacted material will be by the Owner's Testing Agency and will be coordinated with the Contractor accordingly.
47. All electrical related concrete work including reinforcing shall be furnished and installed complete by this Contractor per specification 033000. This shall include but not limited to concrete material as required for the encasement of conduit, duct banks, feeders, equipment pads, etc.
48. Contractor shall coordinate and conform to the grounding requirements of the local electrical utility company. Provide and install all grounding required.
49. Contractor shall include providing and installation of all light fixtures and lamps referenced in the light fixture schedule and in the Contract Documents. Include all spare parts, lamps and mounting appurtenances required for a complete installation.
50. Contractor shall furnish and install complete distribution system for all lighting including all necessary feeders, branch circuits, ballasts, batteries, lighting fixtures, emergency lighting, night lights, exit lights, transformers, lighting control system, switches, dimmers, photo cells, clock timers, occupancy sensors, receptacles, site lighting, bulbs, hangers, supports, etc.
51. This Contractor shall include additional UL rated firestopping for twenty, four inch conduit wall penetrations per building, one hundred penetrations total.
52. Contractor to provide all electrical disconnects, starters, rough-in, line side, load side wiring and final connections for equipment furnished by others in the Contract Documents including but not limited to: mechanical, plumbing, electrical equipment, fire sprinkler, security equipment, etc.
53. All electrical work to be completed by this Contractor for a complete functional system. Coordinate the proper type, size, routing and final terminations with each individual Contractor. Consider this Scope of Work entry to be the more stringent contract requirement.
54. Lock-Out / Tag-Out Safety Procedures shall be followed without compromise. Include the lock and tag out of all power sources and HVAC equipment.
55. Relocation of existing devices per plans and specifications.
56. Contractor shall be responsible for the fire alarm/life safety system that is furnished and installed complete by his/her Contractor. This shall include all supplemental power supplies, smoke detectors, heat detectors, pull stations, remote test switches, relays, monitor modules, relay switches, horns, strobes, combination Audio / Visual, 120v power wiring, control panels, remote Annunciator panels, terminal cabinets, node panels, control wiring, connections, panel devices, smoke & smoke/fire damper requirements, PIV's/ hot boxes/ valves, complete HVAC interface and shutdown requirements, Fire Pump / Controller interface etc. for a complete Fire Alarm System.
57. Contractor shall agree and understand that the HVAC System and the Fire Protection System must be tested in conjunction with the Fire Alarm System. Contractor agrees to assist in coordinating and performing the testing

with the CMAR, Fire Alarm Systems Contractor, Fire Protection Systems Contractor, and Mechanical Contractors, Local Inspectors, DOI, and Commissioning Agent. It is further understood that the results of this testing is to be documented in writing and submitted to the CMAR by the electrical, fire protection, and mechanical contractors including all documentation required to be provided by the respective manufactures representatives.

58. Provide receptacle outlets equipped with ground fault circuit interrupters, reset button and pilot light, for plug-in connection of power tools and equipment. For bid purposes assume five (5), quad receptacles for each floor, in each building, for each phase of construction.
59. Contractor is responsible for connecting all Fire Alarm Devices and interface connections furnished by Others i.e. flow and tamper switches, elevator controllers, ATS, PIV's/hot boxes/valves/pre-action systems, etc.
60. This Contractor shall include an additional one hundred man hours for associated fire alarm work as directed by the Construction Manager.
61. This Contractor shall include an additional one hundred additional man hours for any unforeseen conditions to correct electrical systems to satisfy the state electrical inspector.
62. Contractor is responsible for furnishing all required duct mounted smoke detectors (including housing and correct length tubes) with an addressable relay. Duct detectors will be installed by the Mechanical Contractor.
63. Placing electrical systems into service as early as possible and per direction issued by the CM.
64. During the course of construction any energized open junction boxes shall be closed up in accordance with applicable codes.
65. Proper personnel on hand during NC SCO/DOI and all other inspections. Handling of all intermediate inspections with inspectors as well.
66. Transformer pad as detailed on E-004
67. Complete fire alarm system with connections to fire sprinkler flow/tamper switches, post- indicator valve, submittals, per contract documents, etc. including testing/checkout/certification/addressing/etc.
68. All necessary phasing of the Electrical/fire alarm work to accommodate the construction schedule.
69. Include all lettering, labeling or signage that may be required as part of the above noted divisions.
70. Provide additional power service and distribution service consisting of individual dedicated 15 amp 120 volt circuits to electrical drops with receptacle outlets equipped with ground fault interrupt protection, color coded for the exclusive use of the industrial hygiene firm.
71. Provide services of an electrical, on a standby basis, to service electrical needs during the abatement process.
72. The coordination effort on this job will be extensive and Contractor is to plan accordingly. It is a mandatory requirement that the designated Project Manager for this Contractor will be present on all BIM calls and all in person meetings. It will not be acceptable to sub this work out and leave it up to the third party detailer to represent this company on these calls. See below on BIM requirements.

General Requirements (BIM) Coordination Drawings

1. This project will utilize Building Information Modeling (BIM) to help facilitate the preparation of coordinated drawings for submission to the Architect. This coordination effort will be led by the Construction Manager with input from all PME & Fire Suppression trades as described below:
2. The Contractor shall be responsible for creating 3D and 2D coordination drawings of all vertical and horizontal work required to responsibly coordinate each trade.
3. This Contractor is specifically required to participate in the 3D coordination drawing process for this project, in order to fully coordinate all work with other trades.
4. While the CM coordination process will be based on the transfer of electronic files for overlay into the CM's-produced building model, the end result of this process is solely to identify areas of conflicts with other trades for resolution on the individual Contractors' drawings and does not relieve the Contractor from the responsibility of submitting for CM/Owner/Architect approval scope of work specific shop drawings (based on this process) in accordance with the shop drawing submittal provisions of the project specifications and contract requirements.
5. This Contractor is to understand the BIM requirements fully as related to this scope of work and make adequate provisions in the base bid amount to participate in this process from inception through completion, maintaining stated milestone dates, at no additional cost above and beyond the base bid amount.

6. The CM shall provide a base line 3D model and 2D base line CAD file to base all coordination documents from. This model shall be produced per the contract construction drawings and specs.
7. The order of precedence for location above the ceilings is to be as follows (i.e. Gravity piping systems will take precedence over non-gravity systems): recessed electrical light fixtures, overhead casework or structural supports (modifications not included), plumbing sloped systems, ductwork and above ceiling mounted equipment, electric cable tray, HVAC piping, plumbing piping (domestic water, and special gases), fire protection, and electrical conduit.
8. All ceiling overhead items must be coordinated to provide accessibility to accommodate lower ceiling heights. This Contractor shall include all necessary offsets, etc., to provide drop downs or other means of providing more accessible overhead devices. All costs associated with relocating above ceiling overhead to more accessible elevations due to improper coordination efforts shall be borne by this Contractor. Each sign off set will have a clause that notes that any cost impacts that are a result in a design change are to be submitted within 10 days of signoff. If not received it will not be considered. This Contractor shall advise their lower tier subs and suppliers downstream of these requirements as the CM will not accept any submissions for adding bends in pipe or duct that were needed in order to successfully coordinate the project. This project is a renovation and these type modifications will be considered the norm on this project and should be accounted for in bidding.
9. An initial “kickoff” meeting will be held prior to the production of any coordination drawings to establish milestone dates, sequencing, resolve major interferences, etc. After that, Weekly Coordination Meetings will be required and scheduled by the CM. These meetings will be mandatory for all trades involved in coordination and will continue until all clashes have been resolved. Each trade/Contractor shall make each respective team available for one meeting per week (a minimum duration of 4 hours) from notice of award until all work has been completed and approved coordination drawings finalized. Due to the complex nature of this project this could result in 20+ meetings over a 3 month duration for each phase. Coordination efforts are not to take place strictly on the day of the in-person meeting. Coordination efforts shall be ongoing at all times during the week. The intent of the in-person meetings is to evaluate any major conflicts or areas of concern and to collaborate on the drawings generated over the past week.
10. The CM shall publish a list of the required 3D coordination drawings with due dates for each.
11. Contractor is responsible for identifying all potential conflicts with building structure systems/elements. Contractor shall include all required piping/duct modifications, fittings, etc. to comply with final system layouts with approved coordination drawings and/or to comply with field conditions for connections to existing utilities at no additional cost to Construction Manager.
12. After each Contractor has fulfilled its obligations it shall return the drawings and electronic files to the CM. The CM shall be responsible for merging the drawings into a single coordination drawing for submittal to the Architect/Engineer for review and comments.
13. Each Contractor having input into the production of 3D coordination drawings will be required to sign off on acceptance of the final coordination drawings prior to the commencement of its or other participants work in any given area. All costs attributable to failure of a Contractor to provide its timely approval of the coordination drawings or failure to cooperate in the production or assembly of input for said drawings shall be borne by such Contractor.
14. This coordination activity includes above and below ground work of HVAC, plumbing, fire protection, electronic systems integrator, telecommunications, AV, fire alarm, electrical work, etc.
15. The coordination activity is to include work in all above/below grade, exterior/site, and interior locations.
16. Provide all coordination necessary to be certain that all device outlets are installed level, plumb, and flush with respective finishes. Provide color sample selections to the Architect to review prior to ordering.
17. Include all necessary coordination with the architectural model so as to provide all outlet(s) and raceway openings made by the architectural model. This contractor will be solely responsible for all cost associated with repair and/or replacement of architectural feature damaged due to outlet(s) and/or raceway openings being made by him or his Contractors and or incorrect coordination and direction provided by this Contractor.
18. All plans (minimum ¼” scale) and sections (3/8” scale) shall show building room layouts, structural steel elements, sprayed fireproofing, pipe with insulation, conduit over one and one-half inch (1½”), racks of more than three (3) pipes or conduit, regardless of size; and all ductwork, including insulation thickness, regardless of size.

19. If any Contractor fails to produce all of its initial 3D coordination drawings within the time allocated, the CM will produce said drawings, and all the costs of producing said drawings will be at the expense of the Contractor.
20. The CM will determine the method to be used to resolve interference problems not identified prior to execution of the work. The cost of rework and relocation's directed by the CM will be the responsibility of the Contractor having installed affected items. In the event of a dispute, CM's decision will be final.
21. Upon completion of the Coordination Drawings it shall be the responsibility of each Contractor to provide sufficient copies of the accepted coordination drawings to their respective Superintendents, Foreman's, lower tiered Contractors and installers in the field. As a minimum each Contractor shall have (1) set of the accepted coordination drawings on each floor of the project. It is the responsibility of each Contractor to continually review and communicate with all other Trades in advance of the installation any issues and/or conflicts that require variance from the reviewed and accepted coordinated drawings.
22. Coordination drawings as detailed are included: 2D Coordination drawings showing all horizontal and vertical dimensions of the work shall be prepared by mechanical, electrical, plumbing and fire protection Contractor's as well as others as required or designated by the Contract Documents, Scope of Work or as directed by the Construction Manager. This information is to be generated directly from the 3D coordinated model. Additionally, each Contractor is responsible for getting this information into a usable format for their surveyors.
23. Contractor to verify equipment layouts can achieve maintenance needs.
24. Contractor is responsible for developing all floor and ceiling layout back drop files and shall not assume Architect files will be available for use to develop shop drawings or coordination drawings. As indicated above, any drawings released by the Design Team to the Construction Manager will be made available to the coordinating Contractors.
25. Completion of the coordination drawing process will be a requirement for pay request release of funds after the allotted specified time period.
26. In general, each coordinating Contractor shall have minimum of 3 previous projects that they have created 3D Building Information Models for the purposes of coordination. In addition, have a minimum of three (3) persons on staff that are capable of performing the required 3D modeling responsibilities for this project. If additional manpower is required to maintain schedule, such manpower shall be provided at no cost to the Construction Manager or Owner. Shall a prequalified Contractor not meet this requirement, they shall hire a local consultant to complete the work on their behalf; local consultant shall be able to participate in weekly coordination meetings in person (if required.)
27. Upon completion of the MEP coordination efforts, this Contractor shall continuously maintain as-built drawings as the project progresses. As built drawings shall be distributed to the project team on a monthly basis and shall be updated with changes as issued by the design team. Should drawing changes be issued by the design team and need to be incorporated into the model immediately, Contractor agrees to expedite the incorporation of stated drawings into the model as directed by Construction Manager with no overtime charges.
28. At the completion of the submittal process, this Contractor shall be responsible to upload all submittal information into the Building Information Model. This includes product data and shop drawings for valves, FCU's, motors, starters, VFD's, AHU's, etc. The format for including this information in the model shall be discussed during the MEP/BIM kickoff meeting.
29. At the completion of the project, as-built drawings shall be completed in the Building Information Model and turned over to the Construction Manager, both in a model compatible with Navisworks as well as 2D CAD drawings.

Priority Task Items:

The Construction Manager is committed to starting on site construction as soon as possible; therefore, as part of this Bid Package there are **priority task items** that must be preplanned, organized, scheduled and completed on site first, prior to beginning other work scope responsibilities. Priority task items do not necessarily need to be completed in sequential order; they can be completed concurrently where it makes sense for construction and as necessary to expedite completion. Priority task items, in a proposed order of completion are as follows.

1. Submit to the Construction Manager certificate of insurance within 10-days of receipt of Notice to Proceed.
2. Submit to the Construction Manager all submittals within 30 days of receipt of Letter of Intent.

3. Submit to the Construction Manager Contractor's project safety plan prior to commencing Work on site to include tiered Contractor plan (if applicable).
4. Submit to the Construction Manager Contractor's close out documents upon request by the Construction Manager.
5. Submit to the Construction Manager a listing of all Contractors, material and equipment suppliers, and anyone else who may be providing goods and services to the project. Include company names, address and contact numbers, contact name and email address. This listing must be received by the Construction Manager prior to receipt of payment.

Allowance:

Allowances that may be contained in the Contract Scope(s) shall be included as a part of the total lump sum Bid Proposal amount. An allowance shall be for raw costs and be exclusive of overhead and profit mark-up and performance and payment bond costs, which shall be included in the Bid Proposal sum, not in the allowance. The allowance is available for application at the discretion of the Construction Manager and the unused portion credited against the Contract amount. All Contract allowances will be identified in the Schedule of Values as an individual line item exclusive of overhead and profit.

1. Fire caulk through wall penetration with 2 hour rating, 40 locations per building, 200 penetrations total.
2. Fire caulk slab penetration with 2 hour rating, 20 locations per building, 100 penetrations total.

Unit Prices:

Unit Prices as listed may be utilized by the Construction Manager to make contract cost adjustments for changes in the work. Unit prices for completed in place work shall include cost for labor, materials, equipment, insurances, taxes, bond premium, overhead and profit and other related incidentals and remain firm and in effect for the duration of the contract. Solicited unit prices are for added work.

1. Provide a unit price for a spot smoke detector.
2. Provide a unit price for a spot heat detector (combination type – addressable).
3. Provide a unit price for a spot heat detector fixed (with addressable monitor module).
4. Provide a unit price for a addressable pull station.
5. Provide a unit price for a duct smoke detector wired for interface with fire alarm system. (Installed by others).
6. Provide a unit price for a speaker/strobe.
7. Provide a unit price for a strobe only (synchronous).
8. Provide a unit price for a isolation module.
9. Provide a unit price for a monitor module.
10. Provide a unit price for a control module.
11. Provide a unit price for raceway and power for a magnetic door hold.

Alternates:

Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable there from. Claims for extras resulting from changes caused by the acceptance or rejection of any Alternate will not be allowed. Alternate Prices shall also include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any Alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.

Alternate 1: See Sheet E-001, and Specification Section 012300, Alternate No. 01 and 01A. Phase one Denny alternate includes a new exterior wall around this building. Remove existing conduits, receptacles, panels, pull boxes, etc., that penetrate, or are on the building's exterior walls. Reinstall/Extend conduits, etc., after the new

cladding is installed. Extend existing flush mounted boxes as required. E.C. is to site verify extend of work prior to bidding. See Mechanical sheet M-101C, existing units outside of mechanical electrical room 123 to remain in operation. Provide pricing for power of temporary cooling/heating during unit downtime.

Alternate 2: See Sheet E-001. Provide alternate pricing for a Simplex Grinnell fire alarm system that is compatible with the existing campus wide network.

Exclusions to this Scope of Work:

1. N/A

Section Four

Project On Site Preliminary Schedule

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Bid Package Schedule Narrative

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Bid Schedule Narrative:

The attached Bid Schedule has been compiled for each bidder's use in determining approximate time frames for work of their bid packages. This schedule has been compiled to assist each bidder and give approximate durations for work as well as to provide clear information as to how the project will be constructed. The CM will not accept any costs above the bid due to time periods being modified upon completion of the final project schedule.

By submitting a bid for this project it is understood that your firm has carefully reviewed this schedule and does not take issue with the time frames and/or sequence set forth and understand that subcontractor feedback will be needed to finalize the construction schedule once all bidders are on board.

CPM Schedule:

It should be understood that a detailed schedule will be produced prior to starting work on this project. Upon notification of Letter of Intent, the CM will request a schedule from each bidder and will consider modifications to the schedule considering it does not impact the overall schedule and/or delay the schedule as currently built.

NOTE: BID SCHEDULE WILL BE ISSUED VIA ADDENDUM

Section Five

General Requirements

Section Five – General Requirements Table of Contents

Refer to Volume 1 for General Conditions, Summary of Work & Supplementary General Conditions

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Project Specific Requirements

DEFINITIONS

Where used in these SUPPLEMENTAL REQUIREMENTS, the following terms are defined as follows:

Project:	UNCC—UNCC Academic Complex Renovations
Location:	Charlotte, NC
Owner:	UNCC
Architects:	<u>Woolpert</u>
Construction Manager:	Barnhill Contracting

WORKING HOURS

On-Site Work Hours: Reference UNCC General Requirements included in this Project Manual. Limit work in the existing building to normal business working hours of 7 a.m. to 4 p.m., Monday through Friday, unless otherwise indicated. Weekend Hours: Contractor may work on-site at other hours only with approval from the Construction Manager. The Construction Manager is required to secure the Owner's prior written approval at least 72 hours in advance. All requests by Contractor shall allow adequate time to secure the necessary approvals. No work is permitted on Sunday mornings.

In order to maintain the project schedule, Contractors may request approval to work extended hours, utilize weekday overtime and/or additional shifts at no additional cost to the Construction Manager. **Subcontractors shall not utilize overtime work in lieu of providing adequate manpower through the normal workweek.** Each subcontractor that is required to work accelerated schedules will be required to provide a full work crew or crews on site during duration of the subcontractor's scope of work.

Time of Completion – The Contractor shall commence work to be performed under this agreement on date to be specified in written Notice to Proceed from the Architect and shall fully complete all work hereunder by the contracted completion date.

The Owner will submit through the Architect to the Construction Manager the Notice to Proceed shortly after execution of the Agreement, at which time the allocated time for completion of the Project will commence. For each day in excess of the above number of days to be assigned per phase completion date, the Contractor shall pay to the Owner liquidated damages as indicated below for failure of said Contractor to complete work within time specified, such time being in the essence of this Contract and a material consideration thereof.

- A. Two Thousand Dollars (\$2,000.00) per day.

FIELD OFFICES

- A. The Construction Manager will provide field office and telephone for his exclusive use. The project site will not allow subcontractor offices.

SECURITY

- A. Responsibility for the security of materials and facilities shall remain that of the subcontractor, providing/installing same.

TEMPORARY AND REQUIRED FIRE PROTECTION

- A. Each Subcontractor must provide temporary fire protection system(s) within the immediate area of his work, as required by the local Fire Marshall, local, state and federal and insurance underwriter requirements. Subcontractors welding and/or utilizing a cutting torch or any other operation involving fire potential, shall utilize an individual Fire Watch at all times.

HOISTING AND SCAFFOLDING

- A. Training, planning, certification and inspections in accordance with the Site Safety and Incident Prevention Program and all OSHA requirements.
- B. Subcontractors shall provide all scaffolding, hoisting, ladders or lifts required to complete their scope of work, including professional design services relating to structural loading of the structure.

EXISTING STREETS/ACCESS TO WORK

- A. Each Subcontractor is responsible for the necessary cleaning and repairing of existing streets resulting from said Subcontractor's operations including deliveries of materials or equipment to that subcontractor. This subcontractor shall be responsible for cleaning trucks prior to leaving the site to prevent the distribution of mud and debris onto City streets.
- B. Subcontractors are prohibited from discharging any waste products from concrete trucks or any other unsuitable materials, fluids or products on the site or into the sewer system. A concrete wash area will be identified at the project site or on surrounding properties.

EXCAVATION — EROSION CONTROL

- A. Each Subcontractor performing excavation, trenching, etc. must provide and maintain proper shoring, bracing slope protection and access in accordance with OSHA requirements. Engineering services required to meet OSHA regulations shall be the responsibility of the subcontractor. Subcontractor is responsible for all notifications to both public and private utility companies for the purpose of locating and protecting existing utility installations.
- B. Any land disturbing activity performed by the trade contractor, in connection with the project, shall comply with all erosion control measures set forth in the contract documents and any additional measures which may be required in order to ensure that the project is in full compliance with the Sediment Pollution Control Act of 1973, as implemented by Title 15, North Carolina Administrative Code, Chapter 4, Sedimentation Control, Subchapters 4A, 4B and 4C, as amended (15 N.C.A. 4A, 4B and 4C). In addition, the Subcontractor shall comply with the following requirements:
1. Equipment utilized during the construction activity on a site must be operated and maintained in such a manner as to prevent the potential or actual pollution of the surface or ground waters. Fuels, lubricants, coolants, and hydraulic fluids, or any other petroleum products shall not be discharged on to the ground or into surface waters. Spent fluids shall be disposed of in a manner so as not to enter the waters, surface or ground, and in accordance with applicable state and federal disposal regulations. Any spilled fluids shall be cleaned up to the extent practicable and disposed of in a manner so as not to allow their entry into the waters, surface of the ground, storm sewers, or drains on private or public (State) property.
 2. Herbicide, pesticide, and fertilizer usage during the construction activity shall be restricted to those materials approved by EPA and shall be used in accordance with label restrictions.
 3. Minimum Monitoring and Reporting Requirements (unless otherwise approved in writing) by the Division of Environmental Management shall be complied with. The Trade/Sub Contractor installing any erosion control device shall comply with the following requirements:
 - a. All sedimentation and erosion control of facilities shall be inspected by the responsible Sub/Trade Contractor at least once every seven (7) calendar days and within 24 hours after any storm event of greater than one inch (1") inch of rain per 24-hour period and documented.
 - b. Storm water runoff discharges shall be inspected by visual observation for color, foam, outfall staining, visible sheen; dry weather flows and muddy water (at the frequency described above) to evaluate the effectiveness of the pollution control facilities or practices. If any visible off-site sedimentation is leaving the site, corrective action shall be taken to reduce

- the discharge of sediments.
- c. The Subcontractor shall submit to the Construction Manager a written report of weekly inspections. Visible sedimentation found off the site shall be recorded with a brief explanation as to the measures taken to prevent future releases as well as any measures taken to clean up the sediment that has left the site. This record shall be made available to NCDENR or authorized agent upon request.
5. The Subcontractor shall keep all erosion controls devices and materials in good repair. The Construction Manager reserves the right, with 24 hours prior notice to the subcontractor to repair any erosion control measures or materials as required, and deduct the cost of those repairs from the sub/trade contractor's application for payment.

OPENINGS, BLOCKING, BACKING AND GROUNDS

- A. Unless noted otherwise in the Bid Package Scope of Work Summaries, each Subcontractor must be responsible for furnishing and installing the blocking, backing and grounds necessary for the installation of their work.
- B. Each Subcontractor must make suitable preparations for the installation of his work, including all piping, conduit, hangers, inserts, anchors, grounds and supports that are to be embedded in concrete, masonry walls, floors, partitions or structural members, or that are to pass through or be attached thereto. Each Subcontractor must provide and install proper sleeves, boxes, receptacles or chases for all openings or recesses to receive his work occurring in or passing through any such members, all of which must be located accurately and secured firmly in place before any such masonry has been erected or concrete poured. If required to meet the project schedule or directed by the Construction Manager, this work will be installed on overtime at no additional cost. Core drilling is the responsibility of each Subcontractor and will occur only under the supervision of the Construction Manager and with the approval of the Structural Engineer.

CUTTING AND PATCHING

Prior to cutting, which affects structural safety of project or work of another contractor, submit written notice to the Construction Manager requesting consent of the Architect/Engineer to proceed with cutting, including:

1. Description of affected work and necessity for cutting.
2. Affect on other work on structural integrity of project.
3. Description of proposed work. Designate the scope of cutting and patching contractor and trades to execute work; products proposed to be used, extent of refinished; required shoring/bracing.

4. Designation of party responsible for cost of cutting and patching.

CLEANING UP

Each Subcontractor must:

- A. Clean up all waste materials, rubbish and debris resulting from operations on a daily basis to trash receptacles provided for either by this subcontractor or by others defined.

Remove grease, dirt, stains, labels, scribe lines, prints and other foreign materials from the interior and exterior surfaces of material, fixtures, hardware and equipment furnished as a part of the subcontract.

- C. Repair, patch and touch-up or replace marred surfaces damaged prior to final acceptance by the Owner, in accordance with the requirements of the Contract Documents.
- D. The continuous cleanup of waste materials, packaging materials and general debris generated by this subcontractor is the responsibility of this subcontractor. Clean up includes removal of debris from the building to an area or dumpsters located as designated by the Construction Manager. Designated area or dumpsters may be located on-site or at a location adjacent to the site. Construction Manager will bid a work package to provide dumpster and dumpster picks for the project. In addition, many subcontractors will have dumpster requirements as part of their specific scope of work, subcontractors such as masonry/stone, cast in place concrete, structural steel, intumescent and spray-on fire proofing, roofing, drywall, mechanical and electrical. These contractors may be required to provide their own dumpsters, with specific requirements identified in the bid packages.

COORDINATION DRAWINGS

This project will utilize Building Information Modeling (BIM) to help facilitate the preparation of coordinated drawings for submission to the Architect. This coordination effort will be led by the CMAR with input from all PME trades as described below (Reference PMES scopes of work for additional info):

1. The Subcontractor shall be responsible for creating 3D and 2D coordination shop drawings of all vertical and horizontal work required to responsibly coordinate each trade.
2. The CMAR shall provide a base line 3D model and 2D base line CAD file to base all coordination documents from. This model shall be produced per the contract construction drawings and specs.

3. The order of precedence for location above the ceilings is to be as follows (i.e. Gravity piping systems will take precedence over non-gravity systems): recessed electrical light fixtures, overhead casework or structural supports (modifications not included), plumbing sloped systems, ductwork and above ceiling mounted equipment, electric cable tray, HVAC piping, plumbing piping (domestic water, and special gases).
4. All ceiling overhead items must be coordinated to provide accessibility to accommodate lower ceiling heights. This subcontractor shall include all necessary offsets, etc, to provide drop downs or other means of providing more accessible overhead devices. All costs associated with relocating above ceiling overhead to more accessible elevations due to improper coordination efforts shall be borne by this subcontractor.
5. Weekly Coordination meetings will be required and scheduled by the CMAR. The initial meeting will be held prior to the production of any coordination drawings to resolve major interferences. After each subcontractor has fulfilled its obligations it shall return the drawings and electronic files to the CMAR. The CMAR shall be responsible for merging the drawings into a single coordination drawing for submittal to the Architect/Engineer for review and comments.
6. The CMAR shall publish a list of the required 3D coordination drawings with due dates for each.
7. Each Subcontractor having input into the production of 3D coordination drawings will be required to sign off on acceptance of the final coordination drawings prior to the commencement of its or other participants work in any given area. All costs attributable to failure of a subcontractor to provide its timely approval of the coordination drawings or failure to cooperate in the production or assembly of input for said drawings shall be borne by such Subcontractor.
8. This coordination activity includes above and below ground work of HVAC, plumbing, fire protection, electronic systems integrator, telecommunications, AV, fire alarm, electrical work, etc. within five feet (5') of the building line.
9. The coordination activity is to include work in all above/below grade, exterior/site, and interior locations.
10. Provide all coordination necessary to be certain that all device outlets are installed level, plumb, and flush with respective finishes.
11. Include all necessary coordination with the architectural model so as to have all outlet(s) and raceway openings made by the architectural model. This contractor will be solely responsible for all cost associated with repair and/or replacement of architectural feature damaged due to outlet(s) and/or raceway openings being made by him or his subcontractors and or incorrect coordination and direction provided by this subcontractor.

12. If any subcontractor fails to produce all of its initial 3D coordination drawings within the time allocated, the CM will produce said drawings, and all the costs of producing said drawings will be at the expense of the Subcontractor.
13. The CMAR will determine the method to be used to resolve interference problems not identified prior to execution of the work. The cost of rework and relocation's directed by the CM will be the responsibility of the Subcontractor having installed affected items. In the event of a dispute, CMAR's decision will be final.
14. Upon completion of the Coordination Drawings it shall be the responsibility of each subcontractor to provide sufficient copies of the accepted coordination drawings to their respective Superintendents, Foreman's, lower tiered subcontractors and installers in the field. As a minimum each subcontractor shall have (1) set of the accepted coordination drawings on each floor of the project. It is the responsibility of each subcontractor to continually review and communicate with all other Trades in advance of the installation any issues and/or conflicts that require variance from the reviewed and accepted coordinated drawings.
15. Completion of the coordination drawing process will be a requirement for pay request release of funds after the allotted specified time period.

GENERAL PROTECTION

- A. Where work is conducted above or adjacent to existing construction, each Subcontractor must protect the existing construction, as necessary.
- B. Concrete floor slabs must be protected from construction damage. No heavy equipment will be permitted on the slabs until the concrete has obtained its designed strength and then only with approval of the engineer and the CMAR, and installation of adequate protection.
- C. No work will be performed on concrete floors that would detrimentally affect the finish or appearance of UNCC covered floors or the application of finish flooring, where called for. Operations such as cutting or threading pipe, burring, welding, paint mixing or clean up of painting, will require protection of the floors by the trade contractor performing the work or may require relocation to an alternate location, at the discretion of the project superintendent.
- D. Once the building is enclosed; smoking, eating, and drinking (other than water) will not be permitted per the Construction Manager.
- E. The Subcontractor must not cut, weld or use other open flame or spark producing equipment until the location where the work is to be performed is examined by the

- subcontractor, adequate protection is provided and a fire watch is in place.
- F. Any trade creating penetrations through existing walls will be required to patch or seal the area adjacent to those penetrations upon completion of work. Provide all caulking, sating and fire stopping as required for sealing penetrations through all walls, ceilings and floors. All penetrations will be sealed to maintain the rating of the wall, ceiling or floor penetrated.
- H. The existing walks, landscaping, lighting, utilities, streets, paving, curb and gutter and the like shall be protected from damage and any such damage shall be repaired/replaced regardless of the safeguards employed.

BEHAVIOR OF CONSTRUCTION PERSONNEL

- A. **The Construction Manager and Owner will not tolerate any unseemly or detrimental behavior from the construction personnel. If such behavior results, the Owner and Construction Manager may demand immediate dismissal of the offending person from the job site. Any incidents of disrespect, verbal abuse, threatening statements, unwelcome comments, unwelcome interaction or any form of harassment from any construction personnel toward any member of the community is strictly prohibited. Any such act shall constitute sufficient cause for the Contractor to request removal of any individual permanently from the project. In addition, any subcontractor, his representative or any project personnel who ignores or refuses to take action on any requirements of the contract documents; ignores or refuses to take immediate action to correct any endangerment to the health and safety of the public, as solely determined by the Construction Manager/Owner, then such inaction shall be sufficient cause for the Construction Manager to permanently remove those individuals from the project. Such action taken by the Construction Manager/Owner shall not constitute grounds for a claim. The Construction Manager/Owner will not be responsible for any delays caused to the project due to any individual being removed from the project by the Construction Manager/Owner.**
- B. No unsanitary actions will be tolerated on the construction site during the project. Any persons caught performing unsanitary actions will be removed from the jobsite immediately at the sole discretion of the Construction Manager.
- C. Harassment of any type will not be tolerated and will result in immediate and permanent dismissal from the project. "Cat calls" are grounds for immediate removal from the project.
- D. No personal radios or tape decks will be allowed on site.
- E. Only management personnel of subcontractors are permitted for cellular phone use while in the working area of the project.

- F. Subcontractor acknowledges that his employees are required to wear shirts with sleeves and covering the entire upper anatomy of the worker, work boots, eye protection (as required) and hard hats with Company Logo and the person's name at all times while on site. No shorts or tennis shoes will be permitted. Additional personal protective equipment to be utilized as required.
- G. All Construction Traffic and personnel will adhere to the Site Logistics Plan and parking policies. No parking is allowed on site.

LICENSING FOR UTILITY WORK

- A. All utility work must be performed by Subcontractors licensed to perform that work and should be so indicated on the bid proposal.

SUBMITTALS / SHOP DRAWINGS

- A. Submittals and shop drawings will be in accordance with specification requirements and the submittal schedule or as required by the Architect/Engineer. All submittals and shop drawings excluding fully coordinated MEP shop drawings, must be submitted within 14 days of execution of the subcontract or sooner if required by schedule. Subcontractors are fully responsible for meeting the required submittal dates and allowing for submittal review and resubmittal review time periods.
- B. It is the intent to utilize all electronic submittals for this project.
- C. Shop, erection and setting drawings, certificates, catalog cuts and schedules required for work of various trades, shall be checked before submission as hereafter specified, by technically qualified employees of the Construction Manager for accuracy, completeness, and compliance with contract documents. Shop drawings are defined as drawings in excess of 11x17. Data submittals are sheets from 8.5x11 to 11x17. It is expected that the subcontractor submitting will properly check and/or QC their own submittals prior to submitting to the Construction Manager.
- D. Shop drawings and samples shall be dated and contain the name of the project, description or names of equipment, materials and items and complete identifications of locations at which materials or equipment are to be installed.
- E. No portion of the work shall commence, nor materials ordered, until Architect or Engineer has reviewed shop drawings and samples relative to this portion for compliance. All portions of the work are to be done in accordance with shop drawings and samples bearing the stamp of the Architect or Engineer.
- F. Prior to the first shop drawing submittal, each Subcontractor shall submit to the

Construction Manager, a composite list of all proposed shop drawings and submittals. Schedule will be forwarded to the Architect. Identify all items requiring priority review.

- G. For all shop drawings, submit one reproducible of each drawing along with seven (7) copies of black line drawings. Each drawing shall have a clear space for stamps. In addition, or as an alternative, the Construction Manager may require all shop drawings to be submitted electronically in a PDF or other specified format.
- H. For standard catalog cuts and illustrated items not requiring special shop drawings, submit seven (7) copies for review for compliance with contract documents. In addition, or as an alternate, the Construction Manager may require all catalog cuts be submitted in an electronic format.
- H. Samples
 - 1.) The subcontractor shall be responsible for securing and submitting samples as specified and/or as required by the Architect for his selection and/or review of the products, finish, and colors. Samples shall carry the same identifying items as shop drawings. All shop drawings product data, technical data and samples must be properly labeled. Minimum Eight (8) each of each type of material or color.
 - 2.) The Architect will retain items requiring color selection by the Architect until color samples of all materials requiring color selection have been submitted.
- I. PRE-INSTALLATION CONFERENCE: Subcontractor shall attend a pre-installation conference conducted by the Construction Manager which may be attended by Architect/Engineer, Owner's representative and Construction Manager's staff as deemed necessary by Contract documents and scope of work. At this conference, Subcontractor's personnel, including Project Manager, Superintendent and any other key personnel (including those specifically requested to be in attendance by the Construction Manager) will be introduced and the Scope of work will be discussed along with other key issues such as workmanship, quality control, schedule, safety, logistics, etc.

PROJECT MEETINGS

- A. A weekly Superintendent’s meeting will be held during progress of the job. The Subcontractor is required to have its Site Superintendent present at these meetings. In addition to this meeting every other week a bi-weekly Project Manager’s meeting will be held during the progress of the job, the subcontractor is required to have its Site Superintendent & Project Manager in attendance. Attendance in these meetings is mandatory for subcontractors currently working on the project and those starting work within the next 2 weeks. Information, which may be required to be provided at this meeting, includes:
1. Written Status Report indicating the following will be submitted to the Construction Manager by Noon of the day before the meeting:
 - a) Safety Review
 - b) Quality Program
 - c) Review of total job schedule, plus two-week look ahead
 - d) Equipment and Materials Submittal Status, Current Ship Date and Delivery status for equipment and material.
 - e) Job progress.
 - f) RFI Status
 - g) Coordination Issues
- B. The Subcontractor shall assure full representation of its company at all job site progress meetings when working on site or when otherwise advised. Representative shall be knowledgeable of the project, their field staff, their field progress, status of equipment and deliveries, work schedule and have the authority to make decisions and commitments to the Construction Manager.
- C. In addition to the weekly project meetings, a monthly jobsite progress conference may be held with the owner and designers in attendance. Subcontractor shall be represented at these job progress conferences by both home office and project personnel as directed by the Construction Manager. The purpose of these conferences is to effect coordination, cooperation, and assistance in every practical way toward the end of maintaining progress of the project on schedule and to complete the project within the specified contract time. At minimum, the P,M,E subcontractors project managers will be required to attend these meetings.

SPECIAL PROVISIONS

- A. Subcontractor shall visit the Project site to fully acquaint and familiarize itself with the site, surrounding and subsurface conditions and the character of the operations to be carried on at the site, and make such investigations as Subcontractor may deem fit or as may be prudent for Subcontractor to fully understand the facilities, physical conditions

- and restrictions attending the Work. It is the intent of this Subcontract that Subcontractor is to furnish for the price, all items required for proper completion of the Work.
- B. It is understood and agreed that Subcontractor is aware of the necessity of working in cooperation with all the other trades on the Project. It is further understood and agreed that the Subcontractor shall perform to Construction Manager's satisfaction at all times with regard to progress and workmanship and to provide sufficient time for the performance of all Work required by the Contract Documents.
- C. All safety regulations will be adhered to as required by the local and state codes, the Federal Occupational Safety and Health Act and The Site Safety and Incident Prevention Program. Subcontractor will be held liable for any fines levied or delays to the job progress because of his failure to do so.
- D. All Subcontractors are required to protect and have respect for all adjacent property Owners' fences, entrances, curbs, and green areas. Responsibility and cost of restoration due to Subcontractor abuse shall be borne by the Subcontractor
- E. Before starting any Work, the Subcontractor shall inspect all surfaces to be finished. He shall notify the Construction Manager in writing of the unsuitability of surfaces for finishing. The commencing of Work, or the absence of the notification in writing, shall be construed as acceptance of the surfaces by the Subcontractor. Therefore, voiding all possibility of receiving a change order for additional prep work. It shall be the responsibility of the Subcontractor to correct any defects appearing in the finished work thereafter.
- F. All Subcontractors shall provide and maintain quality workmanship and installations. Any Work that is unacceptable, i.e. does not meet specifications, shall be removed and replaced and/or repaired at no additional cost to the Construction Manager or Owner.
- G. The Subcontractor shall be responsible for protection of his own work. Subcontractor is liable for damage caused by his forces, Sub-Subcontractors material suppliers, other Subcontractors, until such time as the Owner takes full acceptance of the project. It is the responsibility of the Subcontractor(s) to protect all work in place. All materials, equipment, furnishings and finishes required to be new shall be in "new condition" at the time of final acceptance. Those that are deemed as not in "new condition" at the sole discretion of the Designer or Owner shall be removed and replaced with new items(s) at no additional cost to the Owner.
- H. The Subcontractor shall in no way interfere with or endanger the pedestrian and vehicular traffic adjacent to and immediately surrounding the project site. Subcontractor shall be fully responsible for all permits, barricades, signage and supervision required for pedestrian/traffic redirection. All requests shall be submitted to the Project Superintendent, prior to proceeding.

- I. Adequate and competent supervision will be provided by the subcontractor, on-site at all times when the subcontractor or a sub-subcontractor is performing Work. Supervision cannot be removed from the project without the written permission of the Construction Manager.
- J. Should a conflict be discovered within the Contract Documents, Trade Contractor shall be deemed to have included the greater quantity and/or higher quality.
- K. Subcontractor shall furnish drinking water, coolers, and ice for their personnel.
- L. Subcontractor shall replace any safety handrails and barriers taken down or removed during the process of their work and is required fully protect all workers/visitors from any exposure during execution of The Work. Subcontractor must notify the Construction Manager before safety rails, barriers, blockout protection, etc. can be removed, and must proceed in accordance with the Site Safety Incident Prevention Program.
- M. Subcontractor shall be responsible for all pumping, demucking and dewatering of their own work or required to perform their work, including rainwater on floors where this Subcontractor's operations are in progress and at exterior site excavations, or building foundations prior to steel erection, masonry installation or the like.
- N. Temporary area lighting per OSHA regulations shall be provided and maintained via the Electrical Subcontractor so designated by the Construction Manager. Task lighting, if required for this Subcontractor's work shall be provided by this Subcontractor. Subcontractor shall notify the Construction Manager in writing of any area lighting concerns prior to starting work in that area. Temporary power outlets, 110-volt/20 amps will be provided at various locations, utilizing 100 ft maximum distance criteria unless noted otherwise in the Bid Package Scope of Work. Power for electric welding/stud machines will not be provided; subcontractors shall be responsible for providing power for these purposes.
- O. Subcontractor is responsible for protection and storage of his work and additional handling. Any available onsite storage space will be coordinated and approved by the Construction Manager. All materials staged/stored in the building shall be placed on pallets in a neat and orderly fashion such that the material maybe moved should it be necessary.
- P. All overtime required to obtain project milestones, maintain schedule, and as required for testing and commissioning shall be included in this subcontractor's work.
- Q. All applicable taxes and fees associated with this scope of work. This Subcontractor shall conform to all tax record keeping and documentation requirements as required by

the State of North Carolina.

- R. It is understood that this Subcontractor, consistent with the terms outlined within the Subcontract Agreement, assumes toward the Construction Manager and the Owner all obligations that the Construction Manager assumes toward the Owner in the CMAR Contract: Construction Services (Owner Contract) with respect to the work to be performed by the Subcontractor under the Subcontract and that the Construction Manager shall have the benefits of all rights, redress and remedies against the Subcontractor that the Owner has against the Construction Manager under the Owner Contract. The Owner Contract is available for review at contractor's field office upon request. It is the Subcontractor's responsibility to review and familiarize itself with the Owner contract and by executing this Subcontract the Trade contractor represents that it has done so. In the event of a conflict between one or more of the Contract documents, the provision imposing the more demanding term, condition, duty or standard of performance, or the greater limitation on the nature and type of relief or damages allowed to the Subcontractor, shall control.
- S. Any demolition required for the installation of new work but not noted or shown to be demolished, is the responsibility of the Trade Contractor installing new work. The word "Contractor" or "General Contractor" shall mean the Trade or Subcontractor whose work is governed by the specification section.
- T. This Trade Contractor is responsible for all layout and/or Field Engineering of their Work. Permanent building control to be established by the Construction Manager. Field measurements are the responsibility of this Subcontractor. Permanent building control may be located on adjacent properties.
- U. Subcontractor shall proceed with the utmost caution when excavating, grading, or constructing in the vicinity of existing utilities. The Subcontractor shall also notify all public/private utility companies and Construction Manager prior to beginning any excavation work. Subcontractor shall be responsible for locating all public and private utilities in accordance with local requirements and state and federal laws and guidelines and the "Underground Facility Damage & Safety Act". Each Subcontractor doing excavation work is responsible for developing an excavation plan prior to commencing excavation. Each Subcontractor must provide and maintain proper shoring and bracing for existing underground utilities, sewers and building foundations, encountered during his excavation work, to protect them from collapse or other type of damage, until such time as they are to be removed, incorporated into the new work, or can be properly backfilled upon completion of new work. The Subcontractor shall be responsible for the associated cost of any utility interruption and repair due to his excavation. The Subcontractor shall immediately restore the service of any utility disrupted due to excavation or other contractor action whatever the circumstance. The Subcontractor is required to hand excavate to expose all known or located underground utilities prior to

using backhoes, trenchers or motorized excavation equipment.

- V. All fastening devices, adhesives, shims, supports, and braces required for a complete installation of the materials and equipment supplied under this Contract shall be provided by this Subcontractor. Pipe sleeves and inserts must be placed and checked prior to concrete pours – Subcontractor will monitor during concrete pour to insure accuracy.
- X Subcontractor is responsible for notifying all Agencies and Inspectors as required. All cost for additional Inspection Services incurred due to lack of coordination by subcontractor causing unnecessary visits by the Inspection Agency shall be paid by the Subcontractor. Subcontractor will contact the inspector and coordinate an inspection schedule with the governing authority so as not to impede construction progress. Permit and Inspection fees are the responsibility of the Subcontractor requiring same. The Building Permit Fee shall be paid by the Owner.

Inspections, re-inspections, testing or retesting beyond that normally provided by the Owner, shall be the financial responsibility of the subcontractor requiring same.

- Y. In connection with its furnishing of the temporary facilities indicated, Construction Manager shall not be liable for conditions beyond the control of Construction Manager which may interrupt, delay or otherwise interfere with the availability of such facilities to Subcontractor. Unless otherwise expressly indicated, the temporary facilities furnished by the Construction Manager shall not be for the exclusive use of Subcontractor, but shall be shared by others performing work on the Project. Construction Manager therefore reserves the exclusive right to schedule the use of any facilities in accordance with its determination as to the needs of the Project, and shall incur no liability as a result thereof.

Construction Manager shall provide Subcontractors with temporary portable sanitary facilities for the duration of the Project. Use of the permanent building water closets is strictly prohibited. Anyone using the permanent water closets shall be removed from the Project, and the Subcontractors responsible for that person shall clean up the area at his expense.

Temporary Water & Sewer – Temporary water service, including any permits, fees or connection costs, shall be provided to project site by the Subcontractor so designated by the Construction Manager.

Cold Weather Protection – Each Subcontractor will provide adequate weather protection and heat in order to maintain a satisfactory work environment.

ADMINISTRATIVE REQUIREMENTS

- A. The Subcontractor shall obtain and submit the required Permits, Insurance Certificates and Payment and Performance Bond Documents (as applicable) prior to starting Work on the project.
- B. This Subcontractor shall submit a complete listing of the Subcontractor's Tier I, II or III Subcontractors, material and/or labor suppliers 2 weeks after receipt of a contract. The list shall include the firm's name, contact person, phone numbers, Subcontract or material purchase date along with the anticipated delivery dates and material shipping points. In case emergency contact is required, the Subcontractor shall furnish the Owner and Construction Manager with the names, pager numbers, and telephone numbers (day and night) of the Subcontractor's project manager and superintendent. The numbers shall remain current or be updated as required for the duration of the project. The Subcontractor shall be responsible for the security and safety of the project. The Owner must approve any "watchman" service instituted by the Subcontractor.
- C. A resource-loaded and cost-loaded schedule (Primavera or Sure Track format) will be submitted for review and approval 2 weeks after receipt of a contract. As mentioned above, this schedule is to be updated and submitted with each monthly progress payment. Failure to do so is grounds to reject the monthly billing. The monthly billing schedule of values must provide both material and labor breakdowns for each element of the billing. The WORK shall be subdivided by System, Size and Location in constructing the detailed schedule of values.
- D. When Subcontractor proposes to sub-let portions of its Work, approval of the Construction Manager is required. Subcontractor shall remain responsible for all its Work, regardless of whether it is performed by Subcontractor or its subcontractors. Subcontractor shall be responsible for assuring the Sub-subcontractor maintains adequate insurance and safety programs.
- E. If approval is granted to allow portions of the Subcontractor's Work to be sub-let, the second/third tier contractor will adhere to all rules and requirements of Subcontractor. Supervision, in the employ of the Tier I Subcontractor, shall be present at all times work is performed under that Subcontract.
- F. It is the responsibility of the Subcontractor to purchase own contract documents.
- G. Daily Work Reports are required to be turned in daily to the Construction Manager by 9:00 AM of the following work day. Daily reports shall include total number of crew members and total man-hours worked, see attachment N of the subcontract for a sample.
- H. Subcontractor shall maintain on the jobsite, one set of drawings on which to record, on a

day-to-day basis, a record of work in place that is at variance with the contract documents. Such variations shall be fully noted on final as-built drawings. Final as-built documents will be submitted in both hard copy and electronic form. The Construction Manager will have As Builts in the field office to transfer notes by trades on a weekly basis.

For the purpose of determining extent of delay attributable to unusual weather, subcontractors shall submit their requests in accordance with the requirements of the Owner Contract.

- J. Payment for stored materials that are stored within the project limits or on property owned by University of North Carolina is on a case-by-case basis and requires written consent of the Owner and Construction Manager. Proof of insurance and a bill of sale must be provided. **Note that any material stored offsite will not be paid for in advance until the material is delivered to the site.**
- K. All Insurance companies providing coverage to subcontractors or sub-subcontractors shall be a company or companies licensed to do business in North Carolina.

INTENT AND EXECUTION:

A. Intent and Execution of Documents

Contract Documents are Complementary.

The Contract Documents are intended to be read as a whole, and any Work required by one part and not mentioned in another (e.g., item shown in drawing and not mentioned in the specifications, or mentioned in the specifications and not shown in drawing), shall be executed to the same extent as though required by all. The addition, omission or incorrect placement of a word or character in one part of the Subcontract shall not change the intent of the Subcontract as a whole, and shall not constitute the basis for a claim by the Subcontractor for an increase in the Subcontract Amount or an extension of time within which to perform and complete the Work. In the event of a conflict between one or more provisions of the Contract Documents, the provision imposing the more demanding term, condition, duty or standard of performance, or the greater limitation on the nature and type of relief or damages allowed to Subcontractor, shall control. A conflict exists in the Contract Documents when the same subject matter is addressed by two or more provisions of the Contract Documents in a manner that cannot be reconciled to give effect to all provisions. In the various parts of the Contract Documents where reference is made to applicable codes and standards, the Work shall, except as otherwise specified, conform to the latest issue of the referenced code or standard available at the time the Work is performed.

All the work shall conform to the contract documents. Where more detail information is needed, or when an interpretation of the contract documents is required, the subcontractor shall refer the matter in writing to the Contractor prior to proceeding

with the work. The designer shall furnish the sub, through the Construction Manager, an interpretation in writing. If the subcontractor discovers errors, inconsistencies, discrepancies or omissions in the contract documents, the subcontractor shall inform the Construction Manager of such condition prior to proceeding with the work.

If prior to bid, the subcontractor realizes errors, inconsistencies, discrepancies or omissions in the contract documents that is not resolved by the order or precedence, the subcontractor shall request clarifications from the Construction Manager and shall include in the bid price all work required to deliver a complete, fully operational and ready to use system. If inconsistencies, discrepancies or contradictions in the contract documents are discovered after the bid that cannot be resolved by the order of precedence then the subcontractor shall be deemed by submittal of his bid, to have bid the costliest as to labor, materials, duration, sequence and method of construction to provide the work.

All manufactured items or fabricated assemblies shall carry an Underwriters Laboratories approval or third party testing-listing-labeling that is in conformance with NC Building Codes and meets the full approval of the County Inspectors responsible for this project.

B. Clarification and Detail Drawings:

If the subcontractor realizes errors, inconsistencies, discrepancies or omissions in the contract documents, the subcontractor shall inform the Construction Manager of such condition prior of proceeding with The Work. The designer shall furnish the subcontractor, through the Construction Manager, written clarification in a reasonable time, so as not to impact the progress of the work. Clarifications for inconsistencies, discrepancies, or contradictions shall not be a basis for deductive or additive change orders.

C. Clarification of Change Orders:

The change order cost breakdown shall include: Labor (\$/hr) and material (\$ ea, lf, sq/ft, etc.) quantities, unit prices (as listed in the contract documents) including such breakdowns for work performed by the subcontractors and the cost extensions for the labor and material quantities. The cost extensions shall be added into a labor and material subtotal. The labor shall then show a percentage for labor burden, the materials shall show the applicable state sales tax. These subtotals shall then be shown as a total for labor and material costs. The labor and material cost shall then show the allowed mark-up (Maximum combined 20% O & P), and a final total. Subcontractor quotes shall be presented in the same format on the subcontractor's letterhead. **A simple email will not suffice.** Failure by the subcontractor to provide the information requested in this paragraph shall result in rejection of the change order by the designer and a request for resubmittal. Delay in the processing of the change order due to lack of proper submittal by the subcontractor in accordance with this paragraph, or due to errors in the change order calculations shall not constitute grounds for a time extension or basis for a claim.

Subcontractor shall make every effort to provide change order proposals in the time frame requested by the Construction Manager.

D. Clarification of Final Payment:

Final Payment to the subcontractor shall also be contingent on the furnishing of satisfactory evidence to the Construction Manager that there are no claims, obligations, and liens outstanding or unsatisfied for labor, services, materials, equipment, taxes or other items performed, furnished or incurred in connection with the Work.

- E. The period of Warranty and Guarantee as detailed in the Owner Contract is for a period of 12 months following the date of substantial completion of the work and beneficial occupancy.

GS 143-134.2 shall apply to any claims filed by the Subcontractor involving the Owner.

- F. Except with the Owner's prior approval, payments allocated to Subcontractors shall be subject to retention of five (5%). Whenever any bid package's complete scope of Work indicated on the Contractor's schedule of values is completed on or before a target date mutually agreed upon by the Owner, Project Designer and the Construction Manager, and Project Designer and Owner agree the Work is completed, the Owner may reduce the amount of retainage on that item by fifty percent (50%) for the remainder of the Project. Early finishing trades are allowed a retainage reduction to (0.5%) once the project is (50%) complete. In accordance with GS 143-134.1 subcontractors who do not have a payment and performance bond and are bonded through Barnhill's SubGuard program and are requesting a retainage reduction on their work need to provide Barnhill thirty (30) days notice prior to billing to allow time to get a written consent of surety.

G. Project Closeout Requirements

- Complete construction and provide start-up testing of equipment
- Conduct a final walk-through inspection to ensure completion of punch list items
- Provide on-site instruction and training as required
- Remove all temporary facilities and utilities
- Repair or replace property damaged by construction activities or temporary facilities
- Complete final cleaning activities
- Submit as-built drawings and other record documents in required quantity, in addition to hard copies, all closeout documents will be required to be submitted in a to be specified electronic format.
- Store spare parts and products and submit list of items stored
- Provide sets in the required quantity of O&M data, spare parts lists, warranties, guarantees, instruction manuals, users manuals, etc. for equipment provided and as required by the Contract Documents
- Submit a final billing with final release of lien and other required paperwork for processing

- Submit a list that includes name, address, and telephone number of each entity installing product or equipment. Include local representatives and service organizations most convenient to the Project site.
- MWBE Closeout documents and reports.

H. As-Built Drawing Requirements

- The initials of the person making the entry and the date change shall be recorded for each revision.
- All construction changes authorized by change order and not incorporated into the Contract Documents shall be recorded.
- Dimensions of buried or concealed Work not originally shown on the drawings shall be indicated.
- Drawings shall be protected in a secure fireproof housing.

I. Project Punch List Requirements

- Subcontractor shall resolve all CM, Owner punch list items as required and as a condition of payment.

SCHEDULE OF VALUES

PART 1 - GENERAL

- 1.01. Related Documents
Drawings and General Provisions of Contract including Instructions to Bidders, General Conditions, Supplementary Conditions, Project Specific Requirements and Division 1 Specification Sections.
- 1.02. Submit to the CM “Schedule of Values” within 72 hours prior of receipt of letter of intent.
- 1.03. Upon request by CM @ Risk or Designer, support values given with data that will substantiate their correctness.
- 1.04. Use Schedule of Values only as basis for subcontractor’s “Application for Payment”.

PART 2 - FORM OF SUBMITTAL

- 2.01 Subcontractor will utilize Construction Manager’s “Schedule of Values worksheet” to submit final Schedule of Values for review and approval. Construction Manager’s “Schedule of Values worksheet” is included in the Bid Manual as Exhibit 1 titled Schedule of Values Worksheet immediately after Schedule of Values. CM upon written request will forward an electronic copy of exhibit 1.
- 2.02 For Subcontractors where base bid cost, to include prime and tiered subcontracts, is **under \$100,000** use Table of Contents of the Bid Specification as a format for specific scope of work activities (CSI Divisions 2 through 33) to complete Subcontractor’s Schedule of Values.

For Subcontractors where base bid cost, to include prime and tiered subcontracts, is **\$100,000 and over** include the following line item activities as the first items to be included in Subcontractor’s Schedule of Values:

ITEM DESCRIPTION	Recommended Percentage
1. Mobilization (not required)	≤ 2%
2. Insurance (billed over course of job)	≤ 1%
3. Bond (if applicable)	Cost
4. Submittal/SD’s 100% Submittal	≥ 1%
5. Project Meeting Attendance	≥ .5%
6. Project Safety	≥ .5%

- | | |
|---------------------|------|
| 7. Daily Clean-up | ≥ 1% |
| 8. Punch list | ≥ 1% |
| 9. Project Closeout | ≥ 1% |

For Subcontractors where base bid labor cost, to include prime and tiered subcontracts, is **\$100,000 and over** use Table of Contents of the Bid Specification as a format for specific scope of work activities (CSI Divisions 2 through 33) to be included in addition to the above items to complete Subcontractor's Schedule of Values.

- 2.03 Subcontractors to submit payment applications on forms as provided in subcontract with cost breakdown on an attached AIA G703 continuation sheet. All payment applications must be accompanied by corresponding lien waiver form, NC State Sales Tax form for the previous month's invoices and Appendix E for documentation of MWBE payments.

PART 3 - PREPARING SCHEDULE OF VALUES

- 3.01. Itemize separate line item costs for each general cost items such as: Performance and Payment Bonds, Field Supervision and Layout, Temporary Facilities and Controls.
- 3.02. Itemize separate line item cost for work required by each section of this Specification.
- 3.03. Round off figures to the nearest dollar.
- 3.04. Make sum of total costs of all items listed in schedule equal to total contract sum.
- 3.05. Itemize separate line item costs for labor and materials.**
- 3.06 For Subcontractors where base bid labor cost, to include prime and tiered subcontracts, is **\$100,000 and over** the combined total of the above eleven (9) Schedule of Value items shall be not less than 10% and not greater than 15% of the approved base bid contract amount. The Subcontractor and Construction Manager will collaborate on actual line item amounts to be appropriate to the approved scope of work.
- 3.07 *Review and Resubmittal***

- a. After review by CM @ Risk and Designer, revise, and resubmit Schedule (and Schedule of Material Values) as required.
- b. Resubmit revised schedule in same manner.

Exhibit 1
Schedule of Values Worksheet

UNCC Academic Complex Renovations,
UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE
BP No.:
Subcontractor Name:
Date Issued:

SCO ID #:13-11117-01A
BCC Project Number: 191016
BP Description:
Date Approved:
Approved By:

Item No.	Item Description	Labor	Material	Total
1	Mobilization	\$1.00	\$1.00	\$2.00
2	Insurance	\$1.00	\$1.00	\$2.00
3	Bond (if applicable)	\$1.00	\$1.00	\$2.00
4	Submittal/SD's 100% Submission	\$1.00	\$1.00	\$2.00
5	Project Meeting Attendance	\$1.00	\$1.00	\$2.00
6	Project Safety	\$1.00	\$1.00	\$2.00
7	Daily Clean-Up	\$1.00	\$1.00	\$2.00
8	Punch List	\$1.00	\$1.00	\$2.00
9	Project Closeout	\$1.00	\$1.00	\$2.00
10	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
11	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
12	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
13	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
14	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
15	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
16	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
17	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
18	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
19	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
20	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
21	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
22	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
23	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
24	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
25	CSI Scope Item (as applicable)	\$1.00	\$1.00	\$2.00
Totals		\$40.00	\$40.00	\$80.00

Subcontractor labor to include prime and tiered subcontracts totaling \$100,000 or over are required to include highlighted items indicated above. The combined subtotal of highlighted items shall be not less than 10% and not more than 15% of the base bid contract amount.

Section Six

Safety

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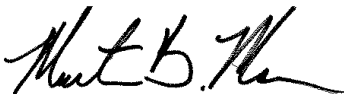
Barnhill Contracting Statement of Safety and Health Policy

It is a goal of Barnhill Contracting Company to provide a safe and healthy workplace on the project site. As such, Barnhill will lead the project's "safety behavior" effort in ways that health and safety will always remain the top priority for all levels of management, supervision, and workers engaged in construction activities. Health and safety will never be sacrificed in lieu of schedule, cost, production, or any other component of the work process. To comply with the project's safety philosophy, the Project employee's will:

1. Thoroughly plan all work activities so they are performed safely, as well as efficiently.
2. Effectively communicate Project Safety Plan requirements to each worker at all levels of the project through open communications, comprehensive training, assessments, and workplace inspections.
3. Develop and understanding, among those in leadership on this project, of their responsibilities and accountability for providing a safe and healthful workplace.
4. Coordinate work operations and activities to minimize or eliminate situations which may jeopardize workers' health and safety due to conflicting or simultaneous work operations or activities.
5. Communicate to all workers that safety is their responsibility and they will be held responsible, accountable, and assigned the appropriate authority for their individual safety and the safety of their co-workers.

All Project employees have a responsibility to give project safety regular and significant attention as "*the right thing to do*" along with being good business practice.

Barnhill Contracting Company



Martin B. Moser
Vice President



PROJECT SAFETY PLAN

PROJECT NAME: UNCC Academic Complex Renovations

LOCATION: Charlotte, NC

BCC PROJECT NUMBER: 191016

DATE: August 3, 2016

Introduction

This Project Safety Plan provides guidelines for the prevention of accidental injury, occupational illness and property damage. Each Trade/Subcontractor and their respective tiered subcontractors and suppliers shall provide and maintain a safe, hazard free workplace for their employees, fellow workers and the general public. Each Trade/Subcontractor(s) is/are required to have a project safety plan reflecting such. As a minimum, the Trade/Subcontractor's own safety plan shall incorporate the principals of the Barnhill Project Safety Plan.


Project safety shall include the involvement and active participation of all Project employees to promote a ***“project safety behavior”*** that will support recognition of unsafe acts, potential and actual hazards and the immediate corrective action to be taken. All Project employees shall be constantly aware of their responsibility to work in a safe manner. Each Trade/Subcontractor and their respective tiered subcontractors working on, or providing services to, the Project site have a contractual, legal and moral obligation to perform their work using safe methods and to comply with the Barnhill Project Safety Plan, the Occupational Safety and Health Administration Standards, and all other Federal, State and Local Codes and Regulations where the safety measures, guidelines or plan is more stringent that is what is required.

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Barnhill Contracting Company



Martin B. Moser
Vice President

Project Safety Plan

Plan Purpose

This Project Safety Plan is prepared to assist in understanding the health and safety requirements for this project to be followed by all Project employees. The purpose of this Plan is to:

1. Prevent jobsite incidents and accidents by pre-planning work activities and sequences with an emphasis on safety.
2. Outline the safety duties and responsibilities of all Project parties.
3. Establish and implement a plan for safety education, training, and monitoring to promote management and worker awareness, identification and elimination of hazards and unsafe act.
4. Establish a safety committee made up of Barnhill representatives and Trade/Subcontractor supervisors and foreman working on the Project. The purpose of the Committee is to ensure a safe, organized and clean workplace, to promote safety training, and act as an emergency organization in times of emergencies.

Project Employee

The term “Project employee” is defined as anyone stepping foot on the Project site to include employees of Barnhill Contracting Company, employees of all Trade/Subcontractors and/or Suppliers who have an active contract agreement with Barnhill, employees of all tiered Trade/Subcontractors and/or Suppliers who have an active contract agreement with a Trade/Subcontractor and/or Supplier who is in contract with Barnhill, or all employees of any company that has business on the Project site while under construction being managed by Barnhill.

Project Safety Plan Commitment Agreement

Project employee is required to complete a Barnhill Site Safety Orientation Agreement which states that each Project employee will conform to the Project Safety Plan. This agreement is to be completed by each individual employee, signed and dated after the Barnhill representative provides a project orientation of health and safety requirements contained in this Project Safety Plan as provided for the project.

Project Safety Organization/Committee

The Barnhill Project Superintendent shall serve as the administrator to organize the safety organization of for the Project. Each Trade/Subcontractor shall appoint a management employee as their respective Project Safety Representative responsible for their work and that of their lower tiered subcontractors and suppliers. This group will serve as the Project’s Safety Committee. All Project employees are required to comply with the safety organization established by this Committee.

Project Safety Committee Responsibility

The Barnhill Project Superintendent assigned to the Project who will act as the leader of the Project Safety Committee. Each Trade/Subcontractor shall designate a competent individual as a safety representative from its first five (5) people on the Project. Additionally, each Trade/Subcontractor will designate at least one (1) safety representative for every twenty (20) of their workers on site with a maximum of five (5) safety representatives for each Trade/Subcontractor. All safety representatives shall be certified in CPR and first aid, construction safety, and have a safety 30-hour card and a good knowledge of OSHA regulations for commercial construction safety. All safety representatives shall attend weekly safety meetings, weekly toolbox meetings, and have a good working knowledge of the particular hazards of their respective craft. The safety representative’s goal is to promote the safety of their respective employees as much as possible. The safety representative shall be aware of overall jobsite general safety conditions,

jobsite evacuation plans and other emergency plans that exist. The safety representative shall make other workers aware of:

- Project safety orientations to be conducted prior to start of work on site
- Supervisory safety orientations are conducted and supervision understands the project safety requirements and their responsibilities
- Use of personal protective safety equipment (PPE), as required, including hard hats, safety vests, AND safety glasses (gloves and earplugs to be used as required for specific work).
- Good housekeeping, site organization practices, and site access procedures
- Weekly toolbox and daily task meetings are conducted to provide workers with up-to-date safety information
- Safe work practice compliance, work tasks are properly planned for safety and documented
- Supervision is continually reviewing safe work practices and procedures used by their crews and initiating corrective action when necessary
- Incident or accident investigating and reporting
- Fire protection and prevention
- Safety signs and barricades
- Scaffolds
- Excavation and trenching
- Confined space entry procedures
- Fall protection
- Respiratory protection
- Hazard communication
- Material handling and rigging
- Safety disciplinary measures

Project Employee Responsibility

All Project employees are required to conform to the Project Safety Plan while on the jobsite. Each employee shall:

- Wear a hard hat, work boots, long pants and a shirt with sleeves all times while on site until such time a certificate to occupy the Project is received in writing from the building inspection authority.
- Wear safety vest and safety glasses as appropriate for the work, or as directed.
- Perform their work in a safe manner for prevention of incidents or accidents to themselves, fellow workers, the general public, and property of all concerned.
- Attend their weekly Tool Box Talks.
- Alert their foreman or supervisor of hazards and unsafe acts.
- Notify their foreman or supervisor immediately of any accident.
- Comply with the Project Safety Plan, their Company's Safety Plan, and all Federal, State and Local Codes and Regulations.
- Provide the more stringent safety requirement in any situation whereby a safety regulation interpretation is required.
- Successfully complete the Barnhill safety orientation established for the Project before starting work on the jobsite.
- Acknowledge and abide by all safety enforcement rules.

Monitoring Subcontractor Safety Performance

The Safety Committee established for the Project will monitor and assess each Trade/Subcontractor's and tiered-subcontractor's and/or supplier's compliance to the Project Safety Plan and associated local, state and federal regulatory regulations that may apply to the project. Corrective action will be taken

immediately to eliminate any discrepancy, hazard, or nonconformance to the Plan observed during the assessment.

Project Safety Awareness Matrix

A Project Safety Awareness Matrix is included in this Project Safety Plan defining the minimum responsibilities for project management, supervision, workers, and safety representatives. Everyone must understand his or her responsibilities with regards to health and safety on this project. The Matrix is provided to assist in defining responsibilities. With the responsibilities defined, each Trade/Subcontractor project management, supervision, and work will be held accountable for their health and safety behavior.

**Project employee Responsibilities
safety awareness matrix**

Subject	Project Management	Field Supervision	Field Labor	Safety Officer	Safety Representative
	Will Ensure That:	Ensure That:	Will:	Will Ensure That:	Will:
Incident Prevention Plan	The Plan is understood, implemented, and strictly complied with. Subcontractors, workers, or third party individuals working or having business as this project are in conformance to the Plan.	The Plan is fully understood, implemented in work planning, and communicated to workers.	Understand the contents of the Plan and follow the established rules and procedures.	An assessment program is instituted to evaluate Plan conformance.	Ensure the project is in conformance to the Plan.
Work Practices	First-line supervision is communicating safe work practices to workers.	All work tasks are properly communicated to workers and complied with.	Follow all safe work practices as communicated to them by the supervisor.		Ensure project personnel are complying with safe work practices and federal, state, local and company regulations and procedures.
Site-Specific Safety Procedures	The site specific safety procedures are implemented and enforced.	The site specific safety procedures are understood and implemented.	Understand and follow the site-specific safety procedures.	All necessary procedures and processes are developed.	Ensure project conformance to site-specific safety procedures.
Medical Attention	A member of management or supervision is currently certified in CPR and/or first aid.	A member of management or supervision is currently certified in CPR and/or first aid.	Know the worker(s) who are certified in CPR and/or first aid.		Ensure that a member of management or supervision holds a current CPR and/or first aid certification.

Subject	Project Management	Field Supervision	Field Labor	Safety Officer	Safety Representative
	Will Ensure That:	Ensure That:	Will:	Will Ensure That:	Will
Training and Supervision	<p>All project workers are properly trained in their work assignments and health and safety requirements.</p> <p>Project supervision and works understand their roles and responsibilities regarding health and safety.</p>	<p>They have received a project-specific supervisor safety orientation prior to start of work.</p> <p>All workers under their direction are properly trained in hazard recognition and safe work practices.</p>	<p>Receive a site-specific safety orientation prior to start of work.</p> <p>Understand and follow the work practices and guidelines discussed during the training.</p>	All necessary training programs are available to project personnel.	<p>Ensure project management, first-line supervision, and workers have received proper health and safety orientation.</p> <p>Assist project supervision in training workers on hazard recognition and safe work practices.</p> <p>Monitor weekly “toolbox” safety meetings.</p>
Hazards	All first-line supervision have identified, evaluated, and controlled the work site hazards.	All hazards are identified, evaluated and controlled.	Understand the hazards of the work and follow the safe work practices and controls developed for those hazards.	Assist project as required.	<p>Assist in evaluating hazards and determining methods of eliminating or reducing the hazard.</p> <p>Institute a daily assessment program to identify, evaluate, and correct work site hazards.</p>
Incidents	All incidents are investigated properly and thoroughly.	They conduct a thorough and proper incident investigation and solutions developed to prevent similar occurrences.	Cooperate and participate in the incident investigation and contribute ideas and solutions.		<p>Assist first-line supervision in investigating incidents.</p> <p>Maintain monthly incident statistics.</p>

Safety Reporting Procedures

Notification of Unsafe or Hazardous Conditions

Each Project employee has the right and responsibility to notify management or supervision of any unsafe or hazardous condition that may be present. Therefore, all Project management or supervision will take corrective action to remove any hazard brought to their attention by Project employee.

Monthly Project Safety Summary Report

Each Trade/Subcontractor will submit to Barnhill on a monthly basis a Project Safety Summary Report with the monthly pay application. This report will be submitted even if the subcontractor has no incidents to report. Information to report will include the following minimum requirement:

1. Monthly Total Man-Hours Worked
 - First Aid cases
 - OSHA Recordable cases
 - OSHA Lost Time cases
 - Restricted Work cases
2. Work-Related Injuries and Illnesses
 - In the event a worker has a work-related injury or illness, supervision will be notified. The Trade/Subcontractor will submit a completed Incident/Accident Investigation form to Barnhill within 24 hours from when the injury or illness occurred. Work related injuries/illnesses will be reported to the Barnhill Project Superintendent immediately.
3. Safety Meeting minutes
 - Provide to Barnhill copies of all meeting minutes held during the month.

Safety Regulations

All Trade/Subcontractors will incorporate, as a minimum, the OSHA 29 CFR 1926 Construction Safety Standards, OSHA 29 CFR 1910 General Industry Standards (as applicable), specific state safety regulations, specific client requirements, and this Project Safety Plan when determining the safe work practices and procedures of its workers. If any of these standards, requirements, or procedures conflict, the more stringent one will prevail.

Incident/Accident Procedure & Investigation Process

An incident or accident is identified as any unplanned or undesired event that results in or has the potential to result in a work-related injury/illness, property damage, or disruption of business where the cause was from human errors or omission or commission. All incidents will be reported to the Barnhill Project Superintendent (or applicable field representative) immediately and investigated to determine the probable root cause(s) and steps required to prevent a similar occurrence from happening in the future.


Each Trade/Subcontractor's competent safety person will be responsible for conducting the investigation of the incident immediately. A corporate safety representative can assist the competent safety person in the investigation, but will not solely conduct it. The Barnhill Accident Investigation Form and Accident Eyewitness Statement Form (samples included) will be completed and submitted to the Barnhill Project Superintendent within 24 hours after the occurrence. All Barnhill forms are to be completed in the highest degree of detail to include all facts of the issue and/or situation.

For incidents defined by Barnhill as serious, all personnel involved may be required to attend a meeting with Barnhill to discuss such incidents. At this meeting, the project team will discuss the incident, root causes, and their corrective action plan. Every worker involved in an incident shall have a post incident

drug test performed within three (3) hours after the incident. Those workers who refuse or delay testing will be immediately removed from the Project.

Accident Investigation Report Form

A copy of the Accident Investigation Form may be obtained from the Project Manual located in the Barnhill jobsite office.



**BARNHILL
CONTRACTING
COMPANY**

Accident Investigation Report Form

Project: _____ Project Number: _____
 Company: _____
 Name: _____
 Address: _____
 Phone: _____

Injured: Name: _____
 Home Address: _____
 Home Phone: _____
 Trade: _____ Position: _____
 Length of Employment: _____

Date of Accident: _____ Time: AM or PM
 Date of Report: _____ Reported by: _____

Type of Accident (Check One): Vehicular Personal Other
 Did the injured take any time? If so, how much (days/hours)?

Was safety equipment in use at the time of the accident (hard hat, safety glasses, gloves, respirator, etc.)?

(If not, it is the EMPLOYEE's sole responsibility to process further claim through Worker Health & Welfare Fund.)

Description of the accident (attach additional pages if necessary):

What caused the accident?

What has been done or will be done to correct the situation and prevent recurrence?

Who is responsible for correction?


Has corrective action been taken? Yes No If not, Why?

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Accident Eyewitness Statement

A copy of the Accident Eyewitness Statement Form may be obtained from the Project Manual located in the Barnhill jobsite office.



**BARNHILL
CONTRACTING
COMPANY**

Accident Eyewitness Statement Outline

Name: _____

Residence: _____

Home Phone: _____ Age: _____ Soc. Sec. #: _____

Employed by: _____ Position: _____ # of Years: _____

Employer's Address: _____

My relationship and acquaintance with any of the parties involved in the accident are as follows:

The accident happened on (date) _____ at (time) _____ AM or PM

The weather was (clear, foggy, rainy, etc.): _____

The road was (muddy, wet, dry, potholed, etc.): _____

Immediately before the accident:

I saw _____

I heard _____

I did/was doing _____

During the accident:

I saw _____

I heard _____

I did/was doing _____

Immediately after the accident:

I saw _____

I heard _____

I did/was doing _____

I have examined the diagram attached to this statement and have shown my position(s), the position (s) of all parties involved and all relevant details to the best of my knowledge.

Other persons who might have or may have knowledge relating to this accident are:

I (did) or (did not) make a statement to the police, opposing counsel, insurance, or private investigator, etc:

(If you obtain a copy)

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Nonconformance & Disciplinary Action

Nonconformance to Health and Safety Requirements

When observing violations of statutory health and safety regulations or the project rules contained in the Incident Prevention Plan, Barnhill will:

- Notify project management verbally of minor nonconformance and communicate all actions to the Project Safety Committee representative. If the nonconformance is immediately corrected, no further follow-up required, or;
- Suspend the work and notify their project management of the nonconformance and suspension. If the nonconformance is immediately corrected, the work may be reinstated, or;
- Suspend the work until such time that the subcontractor's senior management can discuss the nonconformance issues and correct them.

For serious or repetitious nonconformance(s), Barnhill may require each Trade/Subcontractor involved to attend a safety meeting to review issues of nonconformance. At this meeting the Trade/Subcontractor project management will discuss their corrective action plan with the Barnhill Project Manager/Superintendent. If Barnhill determines the Trade/Subcontractor corrective action plan is not sufficient, they can direct that all portions of the work be suspended until an acceptable plan has been approved.

Disciplinary Action Program

The following disciplinary guidelines will be followed and enforced on this Project. Any nonconformance to the Project Safety Plan, and established client or federal rule or regulation, will result in the following disciplinary action:

1. Committing unsafe acts and/or practices that are considered Immediately Dangerous to Life or Health (IDLH) will result in immediate termination from the project. Such acts may consist of, but are not limited to:
 - Failure to follow the Fall Protection Policy
 - Failure to wear required respiratory protection
 - Failure to follow the Substance Abuse Policy
 - Failure to wear a protective vest when working on near a city street
 - Possession of firearms, explosives or dangerous weapons
 - Fighting, horseplay, excessive foul language, practical joking or gambling
 - Entering a confined space without following procedures
 - Unsafe and/or reckless operation of motorized vehicles or equipment
 - Failure to follow lockout/tryout procedures
 - Failure to follow hot work permit procedures
2. Committing an unsafe act and/or practice not an Immediate Danger to Life or Health will result in the following:
 - First occurrence: verbal, written warning, or re-training
 - Second occurrence: written warning, re-training, 3-day suspension, or termination from the project
 - Third occurrence: termination from the project

Safety Incentive Plan (Optional)

If acceptable to all parties, at the conclusion of the pre-award meeting, prior to acknowledging that the trade contractor will receive a contract, Barnhill will request that the trade contractor provide a one-time voluntary \$250 to \$500 donation to the project's safety incentive program. All donations pledged are to be used to purchase safety incentive items such as small hand tools to be distributed to on-site personnel who are recognized for positive safety actions. If a safety incentive plan is approved for the project, on a regular basis (monthly or bi-monthly), Barnhill will conduct a safety incentive drawing or give-a-way. Only those on site personnel who have a positive safety experience on site are eligible to attend.

Safety Violation Plan

Project safety violations will be issued to all project employees who do not conform to safety procedures. Safety violations, is issued, will have fines attached to them which, if issued, will decrease the responsible trade contractors contract amount via deductive change order in the amount of the safety violation fine.

Project safety violation fines are as follows:

Inappropriate pants and/or shirt	\$150 per occurrence.
No Hard Hat	\$150 per occurrence.
Inappropriate Footwear	\$150 per occurrence.
No Eye Protection (as required)	\$250 per occurrence.
No Safety Vest (as required)	\$150 per occurrence.
Violation of Six (6') Foot Fall Rule	\$750 per occurrence.
No Tie-off/Improper Tie-off	\$750 per occurrence.
Unauthorized Parking	\$100 per occurrence, plus towing charges if incurred.
Site Littering/Uncontrolled Trash	\$200 per occurrence, plus the direct costs incurred.
Incorrect Ladder Use	\$500 per occurrence.
Failure to Complete Daily Cleanup	\$750 per occurrence, plus the direct costs incurred to cleanup by others.
All Other Safety Noncompliance	\$750 per occurrence.

Safety violation fines if received are non-negotiable. Repeat violators will be removed from the project. The proceeds from all executed safety violation fines will be applied to the safety incentive program.

General Safe Work Practices

Safety Behavior Requirement

Clean and safe working conditions are absolutely essential for the welfare of all Project employees, as well as for the promotion of construction efficiency and progress. Each Project employee must maintain a strong personal "safety behavior" to think and act safely, and to develop a complete understanding of the safe way to perform each task.

The following general safe work rules are a partial list of the general rules that apply to each Project employee. Anyone who carelessly or callously discards these rules or other applicable rules and safety rules will be subject to disciplinary action.

1. It is the responsibility of each worker to perform his or her assigned duties so as to provide:
 - Safety to themselves

- Safety to their fellow worker
 - Protection from the general public and all other workers
 - Protection to equipment, materials and tools
2. It is the responsibility of each worker to report all unsafe acts and conditions to their supervisor.
 3. No worker will attempt to work under conditions that appear to be unsafe.
 4. Workers are required minimum personal protective equipment as required for Work.
 5. No worker will use damaged tools or equipment. It will be tagged and removed from the work site.
 6. No work will be performed on any equipment, machinery, or system without it being locked out and/or tagged.
 7. It is every worker's responsibility to maintain his or her work area in a clean and orderly manner.
 8. Each worker will be aware of the hazards around them. This may include, but is not limited to moving equipment, hazardous chemicals or substances, workers working above them, and operating process machinery.
 9. Each worker will ensure that the proper guards and safety devices are present and operational on all tools and equipment. No worker will remove a guard or safety device for any reason.
 10. Each worker will report work-related injuries or illnesses immediately to their supervisor and/or Safety Committee representative.
 11. If a worker is unsure as to the safe performance of their work, they will request instruction from their supervisor or Safety Committee representative.
 12. No worker will enter a confined space without authorization and training.
 13. No worker will attempt to operate equipment or machinery or any specialty tool (e.g. powder-actuated tools) unless authorized and properly trained.
 14. No worker will cut, weld, grind, chip, or perform other tasks where the danger of flying debris exists without wearing proper eye and face protection.
 15. Workers will use safe lifting techniques when required to lift materials or other loads.
 16. Workers will not remove any respiratory protection when the work requires it.
 17. No worker will ride on the tailgate or sides of pickup trucks. Refer to the Equipment and Vehicles section for further instructions.
 18. No worker will engage in any horseplay, excessive foul language, fighting or gambling of any form.
 19. No worker will cross, disregard, or enter a red barricaded, taped, or flagged area.
 20. No worker will intentionally discharge or remove fire-fighting equipment.
 21. No worker will remove barricades or floor covers without authorization.
 22. No worker will work six (6) feet or greater above the surface without proper fall protection.

Safety Planning

Requirements

Safety planning is mandatory for all phases of this project. Consider the field condition. Place yourself on the jobsite on a regular basis and be truthful in evaluation of the safety quality of the area. Now imagine your children or other immediate family members working daily in the same environment. Ask yourself these questions.

- Are you still comfortable with the situation?

-
- What are the things that you would do now in order to improve the work environment to that you would now be satisfied with it?
 - Imagine your children or family members as pedestrians or sidewalk superintendents, are you satisfied that the existing provisions surrounding the jobsite will eliminate risk to them?

No single aspect of the work must take greater importance.

Component Safety Planning

Prior to the start of work activities on this project, each discipline superintendent will analyze each major component of the work that he/she has responsibility for completing and preplan his/her approach for each identified work component to be completed in a safe manner. This effort should be shared with all workers prior to work start so all safety considerations are known.

All Safety Pre-Planning efforts shall detail all the major work activities of the component work, identify health and safety hazards, and controls, tools, or equipment needed to reduce or eliminate those hazards and perform work properly.

The purpose of the Safety Pre-Planning is to ensure the discipline superintendent has reviewed the work to be performed, identified the hazards, acquired the proper equipment and tools to perform the work and planned adequate and sufficient controls to protect his or her work crews.

Project specific safe work procedures are included and can be used to aid the discipline superintendent in identifying hazards.

Pre-Task Safety Planning

When a foreman will have multiple work crews, each foreman or a designated first-line supervisor will analyze each task to be performed for each shift of work and identify the work sequences, hazards, and controls necessary to protect workers from the identified hazards.

Pre-Task Safety planning will be conducted daily (on each shift) for every crew performing work on this project in collaboration with the work crew. At the beginning of each shift, each foreman will complete one Pre-Task Safety audit for each crew he/she is responsible for. The work will be broken down into individual steps (i.e. all the steps the work crew will have to take in order to complete the task). After each step of the task is identified, then each task is analyzed for hazards that may appear during the work. When all the hazards have been identified and hazard controls (tools, safety equipment, safety procedures, safe work practices, etc.) are outlined, the ways in which the hazards of the task will be controlled will be addressed with all members of the work crew.

If the scope of work changes or a new hazard appears during the work, the foreman will stop his/her crew member and revise or complete a new Pre-Task Safety Plan. Project management and the designated safety representative should be consulted to review Pre-Task Safety plans to ensure understanding and completeness.

Pre-Task Safety planning shall be completed by the foreman or designated supervisor of the craft directing the work. Safety representative can provide assistance to foreman in identifying hazards and controls. Safety representatives, office engineers, or other persons not involved in direct execution of the work will not complete Pre-Task Safety planning.

Emergency Procedures

Medical Emergency

During the safety orientation, Project employees will be given information on how to summon medical assistance in case of a medical emergency. Worker should know the following information:

- When reporting a medical emergency, the worker will state their name, the nature of the emergency, the severity of the emergency, and where assistance is needed. A Project employee may be required to meet medical personnel and guide them to where the emergency is located.
- Project employees are to be instructed not to move an injured worker before medical assistance arrives unless further injury is possible.

Fire

In case of a fire, Project employees will evacuate their work area immediately and report to the pre-determined assembly area. Project employees, unless they have received special instruction, will not attempt to put a fire out. After reporting the fire, Project employees will evacuate the work area and report to the pre-determined assembly area that was stated during the safety orientation.

Severe Weather

Should weather conditions, such as severe thunderstorms, or tornados develop around or near this project, Project employees will follow the direction of their immediate supervisor. Project employees will be directed to a safe are where they will remain until weather conditions improve.

Site-Specific Emergency Contact & Action Plan

Trade/Subcontractor Project Management will ensure the project-specific Emergency Contact & Action Plan for the project is communicated to all workers during orientation. Specific emergency procedures and emergency phone numbers will be posted in lunch areas, near all subcontractor telephones and on project bulletin boards. Barnhill will assess Trade/Subcontractor Project Management and workers to ensure adequate knowledge of the project emergency action plan exists.

Project Specific Emergency Contact & Action Plan

This plan shall be reviewed by all Project employees and posted in prominent locations accessible to all Project employees. This plan is a supplement to the project specific Safety Program.

Project Number: 191016 Project Name: UNCC- Academic Complex Renovations
 Work Location: Charlotte, NC

1. This is a project specific Emergency Contact & Action Plan ensuring information is communicated to Project employees about evacuation procedures, specific alarms, and assembly points, contact numbers, hospital route and onsite first aid availability should an emergency evacuation become necessary because of severe weather, fire, hazardous chemical release, explosion, or other emergencies that could cause a Project employee(s) harm.
2. It is each Project employee’s responsibility to familiarize themselves with all information in case an emergency.
3. Project employees will immediately evacuate their work area upon hearing the alarm or being notified of the emergency and ordered to evacuate. No Project employee is exempt from evacuation even if the evacuation is a drill.
4. Project employees are required to report immediately to their designated assembly point and be accounted for. Failure to report may cause another to risk danger in an effort to search for you.

In case of:	Notification and/or Contact #	Evacuation Route Directions	Assembly Point Safe Shelter
Severe Weather	Barnhill Contracting Company	Barnhill Jobsite Office Trailer	Barnhill Jobsite Office
Fire	911	Barnhill Jobsite Office and throughout building	Barnhill Jobsite Office
Emergency	911	N/A	N/A
Hospital - CMC	704-355-2000	N/A	N/A
EMS	Onsite First Aid Barnhill Contracting	N/A	N/A
Onsite First Aid	Barnhill Contracting Company	N/A	Barnhill Jobsite Office

Substance Abuse Program

Substance Abuse

The Management of Barnhill Contracting Company feels that one of the most important responsibilities we have is to provide a safe, substance free work environment for all our employees, our customers, professional associates (design professionals, trade/subcontractors, material and equipment suppliers, tiered-subcontractors and suppliers, building officials, and etc.), and the general public that we come in contact with in any capacity working on or visiting the project.

Company Purpose, Benefits and Policy

The purpose of Barnhill Contracting Company's Substance Abuse Program is to establish and maintain a safe, healthy working environment of all Project employees.

It is the policy of Barnhill Contracting Company to provide a substance abuse free workplace. It is in violation of this plan to possess, consume or be under the influence of alcoholic beverages or illegal drugs during work hours or to report for work under the apparent influence of alcohol or drugs. Furthermore, any employee who is guilty of possession of an illegal drug or controlled substance off company property, or an employee who comes to work after unlawfully using any illegal drug or controlled substance or under the influence of alcohol, will be subject to removal from the workplace, suspension, and/or termination. All Project employees, as a minimum standard, are bound by the requirements of Barnhill policy.

This policy will be enforced through various detection methods, including substance abuse screens of all Project employees and substance abuse screens of other employees based non objective data and observations such as physical appearance at work, absent and tardy records, job performance, vehicular and personal accidents, etc.

Any Project employee who refuse to submit, fail to report for, or tamper with a substance abuse screen will be terminated and/or removed from the jobsite. Project employees who fail a substance abuse screen (show positive results) will be subject to removal from the jobsite, suspension, and/or termination in accordance with this program.

Each Project employee, as a condition of Project employment, will be required, upon request of Barnhill supervisory personnel to:

1. Submit to search any vehicle brought upon or parked on company or Project premises;
2. Submit to search any pocket, package, purse, brief case, toolbox, lunchbox, or other container brought upon company or Project property;
3. Submit to search of desk, file cabinet, etc.

Each Project employee, as a condition of Project employment, will also be required, upon request of Barnhill supervisory personnel, to submit to tests for determining use of alcohol and/or drugs.

Each Project employee, as a condition of employment, will be required to sign and submit to Barnhill the "Acknowledgement of Project Substance Abuse Policy" form.

Refusal to submit to a drug screen will result in termination. Barnhill management reserves the right to use drug sniffing dogs to search for drugs on company or Project property at any time

Disciplinary Actions

The following disciplinary actions will be enforced:

1. Any Project employee who refuses to submit to a substance abuse screen will immediately be suspended from the Project site and/or terminated.
2. Any Project employee who submits to a substance abuse screen because of an impaired appearance test will be immediately suspended until results are known. Negative results (passing of test) will result in the Project employee being recalled to work.
3. Positive results of substance abuse screen will subject the Project employee to suspension from the Project site up to 45-days. If after 45-days the Project employee can meet item #2 above, the employee may be considered for reinstatement and permitted back on site if approved by Barnhill. However, a second positive result during the Project duration will result in automatic termination for the site.

Testing For Reasonable Cause

Any Project employee may be subject to drug and alcohol testing for reasonable cause under any of the following situations:

A reasonable suspicion exists that an employee appears to be under the influence of drugs, controlled substances, and/or alcohol. Reasonable suspicion is defined as aberrant or unusual behavior of a Project employee who:

- Is observed by either the Project employee's immediate supervisor or other management and confirmed by independent observation by another member of project management to have the symptoms of drug abuse, impairment, and/or;
- Is exhibiting the type of behavior which is recognized as accepted symptoms of being under the influence of, or impaired by drugs, controlled substance, and/or alcohol, and/or;
- Is exhibiting behavior that is not reasonably explained as resulting from causes other than the use of drugs, controlled substance, and/or alcohol, such as fatigue, lack of sleep, side effects of prescription medication, or reaction to noxious fumes or smoke.
- Any Project employee who is found in the possession, control, sale, or distribution of illegal drug paraphernalia, alcohol, or alcohol products on any Barnhill project.

Project employees suspected of being either under the influence of drugs, controlled substance, and/or alcohol will be observed by a minimum of two members of supervision to affirm the employee is exhibiting behavior indicators of drug or alcohol abuse.

No reasonable cause testing will be conducted without the written approval of the Barnhill Project Manager/Superintendent. Project employees who are suspected of being either under the influence of drugs, controlled substance, and/or alcohol and had a drug screen and/or alcohol test will be suspended without pay until the test results are known. If the test results are negative, the Project employee will be re-installed immediately with back pay.

All Project employees to be tested for reasonable cause will be taken to the collection facility by a member of project management. Under no circumstance will the worker be allowed to proceed to the collection facility without an escort designated by management.

Project employees that refuse to submit to drug and/or alcohol testing will be terminated and will not be permitted to work on a Barnhill project for twelve months.

Post-Incident Testing

All Project employees directly involved in an incident will be subject to post-incident drug and alcohol testing. Trade/Subcontractors will be directed by Barnhill to transport their employees involved in an incident to a collection facility. Trade/Subcontractors will not be allowed to use their collection facility without the prior approval of Barnhill. Workers that refuse to testing, stall to be tested, uncooperative with collectors or attempt to alter a urine specimen will be considered positive and immediately removed from the project.

Random Testing

Project employees may be subject to an unannounced random drug screening and/or alcohol testing based on a computer generated random selection of 25% of all hourly craft workers and 25% of the non-manual workers assigned to this project. The Barnhill Director of Safety will administer random tests. Project employees will not be notified in advance of random testing and are required to read and sign a “Acknowledgement of Project Substance Abuse Policy” form prior to testing.

Testing Protocol

All drug screens will have an initial Enzyme Mediated Immunoassay Test (EMIT) performed. A Gas Chromatography/ Mass Spectrometry Test (GC/MS) will then verify tests that indicated the presence of a controlled substance.

A Medical Review Officer (MRO) will review all drug screens before being reported to the Barnhill Project Manager/Superintendent. The Medical Review Officer may require interviewing the worker prior to releasing their test results. The laboratory will maintain a worker’s urine specimen for one year following a positive test.

Workers are considered to have a positive test if:

- Their urine drug screen and/or alcohol test results are above the cutoff limits established for the Barnhill Substance Abuse Program.
- They refuse to submit for testing of drugs and/or alcohol as described in the Barnhill Substance Abuse Program.
- They refuse to sign:
 1. The “Acknowledgement of Project Substance Abuse Policy” form at time of testing.
 2. The Chain of Custody form at time of testing.
 3. Conditional Employment Agreement when seeking reinstatement.
- They have tampered with or altered a drug and/or alcohol’s test, or otherwise have been uncooperative with testing personnel.

Workers that have a positive test other than when a specimen was tampered, altered, or adulterated may ask that an independent laboratory test their original specimen. This is at the worker’s expense. A worker has three working days after being notified of a positive test to request a second test.

If the second test is ruled to be negative, the worker will be immediately reinstated with all back pay. The Barnhill Project Manager/Superintendent will provide the worker with information on how to contact the laboratory to request the test and determine the cost. Second tests will not be conducted for tampered, altered, or adulterated specimens.

Project Drug and Alcohol Collection Facility

A drug and alcohol collection facility has been established for this project to conduct drug and alcohol testing.

Name of Facility	LabCorp
Address	10320 Mallard Creek Road #180, Charlotte, NC 28262
Phone Number	704-549-8647
Clinic Hours	M-F 8:00-5:00 DRUG SCREENS 8:00-5:00 closed for Lunch 12:00-1:00

Substance Abuse Program

Applicants for employment and workers will be required to read and sign the “Acknowledgement of Project Substance Abuse Policy” form. Applicants for employment and workers refusing to sign this form will not be considered for hire or will be terminated.

Any individual, who refuses to sign the Chain of Custody form, tampers with or alters a drug and/or alcohol test, is uncooperative with testing personnel, or fails to submit to a Periodic, Random, For Cause, or Post Incident test will be immediately terminated.

Any worker may be tested for drugs and/or alcohol under the following conditions:

- Upon transfer to a project
- For Reasonable Cause
- Periodic
- Random

Project employees subject to drug and alcohol testing for reasonable cause will be suspended without pay until the test result are known. If the test results are negative, the employee will be reinstated immediately with back pay. A physician or other medical care provider will test workers for drugs and/or alcohol if they suffer a work-related injury or illness, which requires treatment, or when involved in an incident where personal injury or illness, or damage to property occurs. Project employees may be drug tested periodically, without notice, as well as upon rehire or reinstatement. Random drug testing may be conducted at any time without notice.

Project Hazard Communication Program

All workers on this Project are entitled to know the properties and potential safety and health hazards of chemicals or substances that they may come in contact with on this project. To that end, each Trade/Subcontractor will:

- Develop a written project-specific Hazard Communication Plan for this project. This plan will be posted in a location where workers can easily access and review the plan.
- Maintain a list of all known hazardous chemicals that will be used on this project or hazardous substances that are in the work area.
- Develop a Master Chemical and Substance Inventory List of all known hazardous chemicals that will be used on this project or hazardous substances that are in the work area.

- Create the Master Chemical and Substance Inventory List even if they do not have or will not use any hazardous chemicals or substances. Additionally, each subcontractor will provide the Barnhill Project Management a copy of this list.
- Maintain a copy of the Material Safety Data Sheet (MSDS) for all of the known hazardous chemicals or substances on site.
- Provide the Barnhill Project Management with a copy of all MSDS Sheets of hazardous chemicals being used on the project prior to the start of work on site.

It will be the responsibility of Trade/Subcontractor project management to assume Material Safety Data Sheets are received prior to, or at the time of delivery of hazardous chemicals.

Trade/Subcontractor project management and first-line supervision will ensure all hazardous chemicals are properly labeled in accordance with the Material Safety Data Sheets. Containers that hazardous chemicals have been transferred into for use during a single work shift do not require secondly labeling unless it is a highly volatile or explosive substance.

Trade/Subcontractor workers on this Project will receive instruction about this program, the location of the Master Hazardous Chemical and Substance Inventory list, the location of the Material Safety Data Sheets, labeling requirements, and specific safety or health instructions about the hazardous chemicals or substance.

Training will consist of:

1. The contents of this program during worker orientation.
2. Prior to use of or the potential exposure to any hazardous chemical or substance, workers will have instructed in:
 - Physical and health hazards.
 - Procedures to protect against the hazards
 - Engineering and administrative controls.
 - Personal protective equipment.
 - Emergency procedures in case of exposure or accidental spill.
3. Whenever a new chemical or substance is introduced into the workplace, workers will be briefed of its hazards.

Trade/Subcontractor project management will notify the client, Barnhill, vendors or any other third party subcontractor that may have business in or near a work area that hazardous chemicals are being used and the hazards they may encounter.

Should a worker encounter a hazardous chemical or substance as determined by federal regulatory agencies and which the subcontractor did not know existed or was not advised of its existence, they will immediately notify their supervisor. Trade/Subcontractors will attempt to identify the hazardous chemical or substance and initiate all precautions to handle and dispose of this material, if required, and to properly protect workers.

Project-Specific Safe Work Procedures

Personal Protective Equipment (PPE)

All Barnhill employees are required to wear the following personal protective equipment while on site at all times (except in office and lunch area): hard hat, work boots, safety glasses, and safety vest.

All Barnhill employees will encourage all trade/subcontractors, vendors, and third party individuals to, as a minimum, wear the same personal protective equipment at all times while on this project (except in office and lunch area). In any case, minimum mandatory personal protective equipment includes hard hat and work boots to be worn on site at all times on any Barnhill site.

Personal Protective Equipment (PPE) Definitions

Head Protection

Only a hardhat with the name and logo on it is permitted.

- Personally owned hard hats such as the cowboy style will not be allowed.
- Hardhats will be worn so the bill is facing forward at all times (the hardhat may be turned around to accommodate a welding hood but when the welding hood is removed, the hard hat will be turned around again).

Eye and Face Protection

Safety glasses with side-shields are required. Workers that wear prescription glasses may do one of the following.

- Obtain prescription safety glasses with side-shields, or;
- Wear over-the-glass safety glasses, or,
- Wear mono-goggles.

In addition, the following eye/face equipment must be used when performing the following work activities:

Activity	Safety Equipment
welding	Welding Hood*
Burning	Burning Goggles
Grinding	Face Shield*
Drilling	Goggles/Face Shield*
Reaming	Goggles/Face Shield*
Chemical Handling	Face Shield*
Molten Materials	Face Shield*
Corrosive Liquids	Face Shield*
Concrete Pouring	Face Shield*

* Safety glasses will be used in conjunction with face shields and welding hoods.

Foot Protection

Leather sole work boot in good condition required. Tennis shoes, sandals, or other street-style shoes are not allowed, even if they have steel toes.

Work Attire

Shirt sleeves will have a minimum sleeve length of is four (4) inches. No shorts, tank tops, or cut-off shirts are permitted.

Long trousers that fit properly around the waist. Shorts or trousers that are being worn low on the hips or thigh are not allowed. The length of the trouser will be such to not present a tripping hazard.

Long hair must be contained under the hardhat. Ponytails will not be allowed to extend below the hard hat.

Rings, chains, bracelets, dangling earrings, or other loose jewelry will not be worn when working near or on machinery, equipment, or moving parts.

Safety Vest

Safety vest will comply with ANSI 107-2004, class 2.

Respiratory Protection

Trade/Subcontractor will determine if hazards exists requiring respiratory protection prior to start of work. Whenever respiratory protection is deemed required or requested by a worker on this project, the requirements outlined in OSHA regulations will be followed.

If a Project employee desires to voluntarily wear a filtering face piece (dust mask) and respirator is not required, the trade/subcontractor is required to train the employee about the specific respirator and its limitations. NOTE: DUST MASKS ARE PROHIBITED FOR PROTECTION OF SILICA EXPOSURE.

Hearing Protection

Approved hearing protection will be worn as specified in posted areas and while working with or around high-noise level producing machines, tools, or equipment. A rule of thumb to follow is: When you must raise your voice to be heard, you need hearing protection. Exposure to impulsive or impulsive or impact noise will exceed 140dB noise level.

Duration per day, hours	sound level dBA Slow Response	Impulsive or impact noise	
		Equipment or tools	Sound Level Created
8	90	Pneumatic Chip Hammer	103-113
6	92	Jack Hammer	102-111
4	95	Concrete Joint Cutter	99-102
3	97	Skill Saw	88-102
2	100	Stud Welder	101
1 1/2	102	Bulldozer	93-95
1	105	Crane	90-96
1/2	110	Hammer	87-95
1/4 or less	115	Backhoe	84-93

Above hearing exposure based on an 8 hour exposure

Hand Protection

Project employees will wear gloves whenever possible to prevent hands and finger injuries.

Additional Protection

During the course of work, an activity may necessitate additional personal equipment be worn.

Fire Protection/Prevention

Fire Protection

Trade/Subcontractors are required to provide temporary fire protection measures near hazardous locations, such as fire extinguishers, temporary hose lines, and temporary standpipes.

Fire extinguishers will be:

- Inspected monthly.
- Protected from freezing.
- Placed within the immediate area of any welding/cutting operation or flammable liquid storage area.
- Placed within 5 feet whenever gasoline operated equipment is used

If a fire extinguisher is discharged for any purpose, it should be reported to Barnhill.

All temporary buildings (shops, field offices, locker rooms, etc.) will have a Class ABC fire extinguisher located within the building.

Access will be maintained at all times fire hydrants. Access to buildings and other structures will be maintained at all times.

Fire Prevention

Plastic tarps or covers (visqueen) used for any use inside a building where welding, cutting, or open flame is present, will be constructed of fire retardant intervals, as needed. Storage of large quantities of construction debris will be placed in metal dumpsters.

Storage of compressed gases will be:

- Stored with valve caps securely on when not attached to a regulator.
- Secured upright at all times, including transportation in vehicles.
- Fuel and oxygen cylinders separated by 20 feet or greater.
- Empty cylinders stored separate of full cylinders.

Only approved high flash point solvents are to be used for cleaning purposes.

Oily rags and waste are to be stored separately in metal containers fitted with self closing lids. Trash and refuse must be placed in trash containers provided for this purpose.

Barnhill will approve vehicle refueling locations and procedures.

No open burning is permitted on this project.

A minimum of 15 feet from fire hydrants must be maintained at all times.

All fire safety rules and signs on this project will be observed and obeyed.

Fire and Flammable Liquid Storage and Dispensing

Flammable Liquids will be:

- Stored outside not within 20 feet of any structure or inside a properly constructed storage locker.
- Stored in approved portable containers that are marked as to its contents.
- No more than 25 gallons stored inside any trailer or building.
- Posted with “NO SMOKING” signs. When a large number of workers speak a foreign language, the warning signs will be posted in that language as well.
- Outside storage areas kept free of weeds and other combustible material.

All flammables will be stored in approved containers and marked as to the contents. If storing flammables for more than one day, contact Barnhill for approval.

Storage of flammables will be in an enclosure away from open flame, heat, direct sun or other sources of ignition.

Transportation and transferring of volatile liquids will be made in Underwriter Laboratory of Department of Transportation approved containers.

Gasoline or Diesel storage tanks/drums will be placed in a berm or other secondary containment. Berms will be lined with a minimum 6 mil plastic sheeting that is fuel resistant. PVC linings are not allowed.

Fuel and flammable liquid tanks, drums, or barrels will have the proper DOT placard and be labeled as to content. If workers speak a foreign language, the labels will also be in that language.

At fuel dispensing points, the following is required:

- Portable 20 B-C fire extinguisher within 75 feet of fueling point
- No smoking signs posted. Additional signs in a second language if required
- Spill kit stored nearby.

Hot Work

Burning, welding, cutting, or any work operation that may produce a flame or spark could cause catastrophic results in designated areas, if not controlled. Prior to performing “hot work” operations in these designated areas, workers will obtain a Hot Work Permit from their immediate supervisor or safety representative.

A Hot Work Permit is valid only for the date and shift that is stated on the permit. Hot Work Permits will not exceed longer than one shift and must be renewed daily.

The following precautionary measures will be taken when a Hot Work Permit is required:

- Work area will be picked up of combustible material.
- Grating, openings, etc. will be completely covered in such a way to prevent sparks and slag from falling to a level below.
- Fire extinguisher in the immediate area of work.
- No flammable or combustible material stored within 35 feet in any direction.
- Combustible/flammable materials that cannot be moved must be covered with fire blankets or other suitable material. A worker may be designated as a fire watch for one-half hour after the work has ended.
- Follow confined space entry procedures, if required.

When burning or welding using compressed gasses, flame arrestors will be installed on both the torch side and regulator side of the oxygen and gas hoses.

Welding screens will be used whenever possible to protect workers from welding flash.

First-line supervision will train workers prior to performing any hot work. The training will consist of:

- The work to be performed

- Precautions to be taken
- How to use the fire extinguisher correctly
- Emergency procedures in case of fire
- Duties of fire watch.

Fall Prevention/Protection

This Project is committed to the philosophy of 100% continuous fall protection, whenever the potential exists for a worker to be exposed to fall hazards of six feet (6') or greater. All trade/subcontractors, vendors, or other third party individuals will take all practical measures to eliminate, prevent, and control fall hazards. All work will be planned with the intent to eliminate identified fall hazards. A fall prevention/protection plan will be written where the task involves potential fall hazards. If the fall hazard cannot be eliminated, then effective means of fall protection will be implemented.

Fall protection includes:

- Guardrail systems
- Safety netting
- Floor and wall coverings
- Positioning device systems
- Controlled access zones
- Protection from falling objects
- Personal fall arrest systems

Project employees exposed to fall hazards that cannot be eliminated will be uniformly equipped, trained, and given periodic refresher training in fall protection at specific intervals to minimize the adverse effects of accidental falls. Trade/Subcontractors will maintain records of fall protection training for review by Barnhill.

On this project, 100% fall protection means protected from falls at all times when working at or above six feet. This means it is mandatory for all trades, including:

- Structural steel erection (bolt up and connectors)
- Re-bar assembly
- Concrete forming
- Pre-cast erection
- Masonry
- Carpentry
- Scaffold erection/disassembly

Project employees may work from ladders without personal fall protection when the following criteria are met with not exception:

- Working height does not exceed ten (10) feet
- Work can be performed without reaching (worker remains inside the area between the vertical side rails)
- Ladder is properly tied off or, in the case of step ladder, legs are fully extended and locked
- Work does not involve working within fifteen (15) feet of a leading edge

Personal fall arrest system will consist of ANSI certified full-body harness, lanyard with shock absorbing device or retractable lifeline, locking snap hook, and properly engineered anchorage point.

Project employees will not tie off to a perimeter cable or wire rope handrail unless the perimeter railing or handrail has been properly engineered as a horizontal lifeline.

Rope will not be used for horizontal lifelines.

Lanyards will not be tied back to themselves unless the lanyard is specifically manufactured to tie back to.

Project employees on this project who are exposed to falls of six (6) feet or greater while working off scaffolding, elevated decks, elevated platforms, stairways, stairwells, reinforced steel, or any other elevated areas or equipment will be protected from falls.

On properly constructed scaffold, elevated decks, and elevated platforms that have perimeter guardrail systems consisting of a top rail and mid rail, workers are not required to tie off. If the perimeter guardrail system must be removed, workers will wear full body harnesses with double shock-absorbing lanyards.

Floor and wall openings will be guarded or covered and properly marked “**COVER DO NOT REMOVE.**”

When no other practical means of fall protection can be used, workers will be tied off at all times utilizing a full body harness and double shock-absorbing lanyard.

Project employees will be protected from falling objects from above.

Ladders

Ladders used on this project will meet the requirements established in OSHA regulations.

Project employees will be trained on the safe use of ladders.

Ladders are required to ascend or descent truck beds and or trailers.

Ladders, stairs, or ramps will be provided where there is a change in elevation of 19 inches or greater.

Ladders will extend past the bearing point no less than thirty-six (36) inches.

When ascending or descending ladders twenty (20) feet or greater, a full body harness will be worn and connected to a retractable lanyard or other suitable fall protection device. (Refer to Fall Protection Section for other fall protection requirements.)

Fall protection while working from a ladder is addressed in the previous section on fall protection.

Ladders with broken or bent rungs, steps, or side rails will be immediately destroyed and removed from the project.

All ladders will be tied off at the top or otherwise secured to prevent displacement.

Job made ladders and aluminum ladders are to be discouraged. However, if a job made ladder is constructed, it will conform to OSHA and ANSI standards.

Step Ladders

Step ladders will only be used with the legs fully extended and will not be used as straight ladders.

Project employees will not stand on the top step of a step ladder. No worker will work when his or her knees are above the top of the step ladder.

Straight/Extension Ladders

Ladders will be set up so the horizontal distance at the bottom is not less than $\frac{1}{4}$ of the vertical distance to the bearing point.

Project employees will not stand on the top three rungs of a ladder. No employee will work when his or her knees are above the top of the ladder.

All straight ladders will have non-skid feet at the base.

Scaffolding

All scaffolding used on this project will meet the requirements established in OSHA regulations.

A designated scaffolding competent person will direct the erection and dismantling of all scaffolding on this project. The competent person will attach a colored scaffold tag to the scaffold, depending on whether it is a complete or incomplete scaffold. Scaffolding will be inspected daily by the competent person.

Project employees required to work from scaffolding will receive training on the following:

- Nature of any known hazards, such as electrical, fall, or falling objects
- Correct method of erecting, maintaining, and disassembling fall protection systems
- The falling object system
- Proper handling of equipment or material on the scaffold
- Maximum load-carrying capacity of the scaffold
- Any other pertinent requirements about the scaffold

Records will be maintained of scaffolding training and be available for review by Barnhill.

All scaffolding, prior to erection, will have its components inspected for defects and any damaged parts not used.

Scaffold legs, poles, posts, frames and uprights will be pinned or locked to prevent uplift.

Scaffold platforms will be constructed with no space between the platform components. The space between the platform components and the scaffold uprights will not exceed one (1) inch.

Because of special circumstances such as building a scaffold around a pipe, the space opening between the scaffold and the object/structure cannot exceed $9\frac{1}{2}$ inches.

Scaffold plank, unless cleated or restrained by hooks, will extend past the horizontal support a minimum of 6 inches and not more than 12 inches.

Scaffold plank will not be overlapped unless:

- Overlap occurs at a horizontal support
- The minimum planking overlap is 12 inches

Scaffold plank will be only scaffolding grade planking.

A ladder will make access to and from scaffolding. End frames of tubular welded scaffold can be used as a ladder if the following criteria are used:

- Specifically designed and constructed as ladder rungs
- Rung length of at least 8 inches
- Spacing between rungs not to exceed $16\frac{3}{4}$ inches

No Project employee will climb up or down scaffolding above six feet will be protected from falls. Project employees working from suspended scaffolding will wear a full body harness attached to an independent vertical lifeline.

If guardrails cannot be used on a scaffold, workers will wear a full body harness and be tied off to a fixed anchorage point.

Project employees that work below a scaffold will be protected from falling objects such as hand tools, debris, and other small objects from above.

Project employees working below scaffolding will also be protected from fall objects. Scaffold will be equipped with toe plates, screening, debris netting, catch platforms, or a canopy structure.

When welding is required from swinging scaffolding, the scaffold will be grounded.

Interior or dry wall scaffolding greater than one section will be equipped with outriggers.

Steel Erection

No trade/subcontractor will begin erecting steel without a written Notice to Proceed from Barnhill.

Project employees engaged in steel erection activities to include connecting and bolt-up, are not exempt from the project 100% fall protection requirements when working from six feet or greater.

Perimeter safety cable installed by steel erector will remain in place unless otherwise instructed by Barnhill.

Trade/Subcontractors shall submit training records indicating workers have received required steel erection training.

Trade/Subcontractor will coordinate all steel deliveries with Barnhill to ensure maintenance of traffic around the project is maintained.

Trade/Subcontractor shall submit to Barnhill all design criteria for any multi-lift device that may be used on the project.

Trade/Subcontractor will plan work so that no load will be swung over the public or other workers. During bolt-up activities the trade/subcontractor will take all steps to protect workers below from falling objects.

Confined Space

Project employees may be required to work in an area that is defined as a confined space. A confined space is any space large enough or so configured that a person can bodily enter and perform work, has limited openings for entry and exit, and was not designed for continuous human occupancy.

Confined spaces include, but are not limited to:

- Storage tanks
- Excavations and trenches

- Ventilation and exhaust ducts
- Sewers
- Underground vaults and utility tunnels
- Pipelines
- Pits and tubs
- Open top spaces more than four (4) feet in depth

No Project employee will enter or work in any space that meets the definition of a confined space without obtaining a Confined Space Permit.

Prior to working in any confined space, worker's first line supervision will determine what hazards exist. Any operating system or equipment will be locked out and tagged to prevent accidental operation. Contact the operating facility representative prior to any confined space entry work.

All confined spaces on this project should be non-permit confined spaces. All non-permit confined spaces will have the atmosphere tested and a permit completed and authorized prior to any worker entering the space. The atmosphere will be tested for oxygen deficiency, toxic gasses or vapors, and combustible or flammable gases or vapors.

Prior to any Project employee entering a non-permit confined space, they will be trained in:

- Contents of this procedure
- Known hazards in the confined space
- Emergency procedures in case of an emergency
- Correct use of personal protective equipment, when required
- Hot Work Permit, if required
- Atmosphere testing requirements
- Lockout/Tryout procedures
- Fall protection, if required

Excavation and Trenching

Prior to any excavation or trenching on this project, the following must be performed:

- The work area checked for underground utilities
- If underground utilities are known or suspected, proper notification will be given to Barnhill Management.
- A competent person will analyze the soil of the work area to determine the condition and type of soil to ascertain proper sloping or shoring requirements.
- An excavation permit must be obtained from a Barnhill representative prior to breaking ground.

During excavation or trenching operations on this project, the following requirements will be followed:

- All trenches and excavations will have, at a minimum, solid barricading and appropriate safety signs posted at the work area
- Trenches or excavations greater than four (4) feet in depth will be sloped or benched in accordance with OSHA guidelines and as determined by the competent person.
- Supporting systems (i.e. shoring, piling, cutting, etc.) will be utilized for all trenches and excavations where sloping or benching could not be performed. Trench boxes or shields will be utilized if neither of the above is used.

- Spoil piles will be paced a minimum of 2 feet from the edges of all trenches or excavations.
- Adequate access must be maintained at all times during trenching or excavating activities. Ladders will be placed, at a minimum, every 25 feet around the perimeter of the trench or excavation.
- The competent person will inspect excavations and trenches at the beginning of each day.
- No Project employee will work in an excavation or trench at the same time that powered excavating equipment is being used unless the worker is protected inside a trench box.
- Excavations and trenches 4 feet or greater in depth will be treated as a confined space.
- All excavations or trenches will be monitored for methane gas hazards prior to beginning work.
- A registered professional engineer must design all excavation over 20 feet in depth. In addition, a registered professional engineer must also design all protective systems for use in excavation more than 20 feet in depth.

Maintenance and Protection of Traffic

No trade/subcontractor will temporarily block or occupy any street or alleyway without the prior approval of Barnhill.

When it becomes necessary to temporarily close a city street or alley, the trade/subcontractor shall submit to Barnhill, a written traffic control plan showing how the closure will occur. Trade/Subcontractors will refer to the Manual of Uniform Traffic Control Devices (MUTDC) Part VI when developing a traffic control plan.

As a minimum, the trade/subcontractor's Traffic Control Plan should include:

- Time the street(s) will be required to be closed
- Detail drawings showing temporary signage, tapers, etc.
- Detail plan detailing detour routes for traffic impacted by closed streets

Trade/Subcontractor employees that will be working on or near a city street will wear a reflective vest. Workers observed working in or near a street without a reflective vest will be removed from the project immediately.

Trade/Subcontractor workers assigned as flagmen will be trained as recommended in the Manual Uniform of Traffic Control Devices.

Trade/Subcontractors that fail to follow the traffic control plan or occupy a city street without authorization will have the work stopped.

Trade/Subcontractors that temporarily close, block, or occupy a city street or alley without an approved traffic control plan and knowledge of Barnhill will have all work suspended.

Temporary Barricades

Whenever the following hazards or processes are encountered on this project, temporary barricades will be erected to protect workers:

- Floor or wall openings
- Working above other workers
- Open excavation/trenches
- Unguarded equipment

- Exposure to vehicle traffic
- Low light work areas
- Startup operations and testing of equipment/systems
- Process hazards such as discharge, open systems, etc.

When barricading is required, the following guidelines should be kept in mind:

- **Yellow “Caution” tape** is used to limit the passage of workers through the barricaded area. This barricading should only be used to protect workers from hazards that are not severe or the potential for severe injury or death is unlikely.
- **Red “Danger” tape** is used to prohibit the passage of unauthorized workers through the barricaded areas. This barricading should be used to protect workers from hazards that have the potential to cause serious injury or death.
- **Rigid barricades** are used to provide additional long-term protection to workers from a hazard. Rigid barricading is used just like yellow “caution” tape or red “danger” tape and is to be installed whenever a work area requires protection for forty-eight (48) hours or longer. It should also be used to protect workers from unguarded moving machinery/equipment, vehicular or heavy equipment traffic, and low light conditions. Rigid barricading can consist of standard guardrail, wooden sawhorses, plastic snow fencing, tube and couple scaffold members, and concrete barriers.
- **Radiation “Danger” tape** is used to identify x-raying operations and warn of a radiation hazard in the area.

When using “Caution” or “Danger” tape barricading:

- Install the tape on rigid supports every six (6) feet and at a height of forty-two (42) inches above the surface.
- Install at least six (6) feet from excavations, trenches, holes, leading edges and floor or wall openings. Install barricading at least five (5) feet from all other hazards.
- Install a standard “Caution” or “Danger” sign that identifies the hazard at ten (10) foot intervals around the barricaded area.
- Do not impede walkways, driveways, or aisles if possible. Identify alternative passageways when this is impossible.
- Install for temporary protection only and remove the barricading after forty eight (48) hours and install rigid barricades.

Rigid barricading must be capable of supporting and withstanding a 200 lb force in any direction. Concrete barriers used along public roads must meet the requirements of the local jurisdiction or the Manual of Uniform Traffic Control Devices.

When using rigid barricading:

- Install it in a way to prevent tipping or sagging. Support snow fencing every eight (8) feet.
- Install flagging or other visible markers on tube and couple scaffold members every six (6) feet.
- Install pins in concrete barriers whenever there is a danger of vehicles or heavy equipment striking it.
- Provide sufficient points of access to the work site.

When work is complete and the hazard is eliminated, remove the barricading immediately and dispose of or store the barricading properly.

Workers who enter a “Danger” or “Radiation” barricaded work without authorization will be subject to disciplinary action up to and including termination.

Housekeeping and Orderliness

The policy on housekeeping is all equipment, tools, materials, or apparatuses will be stored, stacked, located, placed, temporarily spotted, or set up for manipulations in such a manner to render an incident highly improbable that an injury could occur. The area should give the direct and obvious impression of a clean and orderly work place.

Project management, supervision, workers, vendors, and third party persons will maintain all work locations in an orderly and clean manner at all times.

The following are the minimum housekeeping and orderliness requirements for this project.

- Access walkways, roadways, and fire lanes will not be blocked with material, tools, ladders, scaffolds, welding leads, air hoses, or electrical cords.
- Electrical extension cords, light stringers, air hoses, and welding leads will be elevated above the work area or walking surface by a minimum of seven (7) feet or marked with a bi-fold sign indicating “Trip Hazard”.
- Welding rod, nuts, bolts, and washer will be kept in proper containers.
- Shackles, slings, chokers, ladders and safety equipment will be removed from the work area when no needed and properly stored.
- Flammable and combustible liquids will not be stored in a work location in excess of a daily application.
- Trash containers will be placed at appropriate locations.
- All nails will be removed from scrap and form lumber and swept up daily.
- Rubbish, trash, and debris will be removed from the work area daily.
- At all locations where drinking water is dispensed, an adequate trash container will be located for disposal of used drinking cups.

Daily Clean-Up

Clean-up of identifiable construction debris and etc. will be completed **daily** by each trade/subcontractor or supplier performing service to the project. Clean-up of unidentifiable construction debris and etc. will be directed by the Barnhill Project Superintendent to include a collective trade/subcontractor clean-up effort (clean-up crew) as required for the project.

Lockout/Tagout

Project Management will ensure that workers are not exposed to the hazards from moving machinery or equipment and those hazards posed by any energized sources by establishing a lockout/tagout procedure.

Safety locks and tags will be applied to all circuits, switches, valves, isolating devices and any other energy sources to ensure equipment, machinery, or processes that have been considered functioning, charged, or could otherwise be operable and render it not-operational or de-energized.

No person will remove another worker's safety lock or attempt to energize any piece of equipment, machinery, or process that has been locked out and tagged.

In the event that a job must be left incomplete, Project employees will remove their locks and tags. Replacing these locks and tags will be a special tag, completed by the first-line supervisor, which states the status of the job, the name of the first-line supervisor, company, date, and phone number.

If a worker fails to remove his or her safety lock at the completion of the job or assigned duties, his or her immediate supervisor will immediately notify management and the Barnhill Safety Department. The employee must be contacted and return to the project to remove his/her safety lock. If the employee is unwilling or cannot return to the project, it must be verified that he/she is not physically at the project before the safety lock can be removed. All safety lock removal incidents will be investigated following the incident investigation process and disciplinary action will occur.

De-Energizing Equipment and Processes

A management representative will coordinate with the operating facility representative or start-up group when any energized equipment or process must be de-energized.

The management representative and operating facility representative/start-up group will identify all circuits and sources of energy that require locking and tagging to make the equipment or process inoperable. The operating facility representative/start-up group will notify their personnel that may be affected by the de-energizing.

The first-line supervisor overseeing the work will sign out sufficient safety locks to lockout the piece of equipment or process.

The operating facility representative/start-up group and first-line supervisor will make certain the operating controls to the equipment, machinery, or processes are in the "off" or "neutral" position.

Once the operating controls are in the "off" or "neutral" position, the operating facility representative will place a safety lock and tag on the energy isolating device(s) first. Then the first-line supervisor will apply their safety lock to each of the isolating devices that provides power or other energy to the machinery, equipment, or process. The first-line supervisor will also apply a visible warning tag. The tag will contain the name of the first-line supervisor, company, date, and phone number.

Once the first-line supervisor has placed his/her safety lock(s) and tag(s) on the energy isolating device, all affected workers will then apply a safety lock and tag to the energy isolating device. Alternatively, the first-line supervisor may place the key(s) to his/her equipment safety lock(s) in a safety lock box, place his/her individual safety lock and tag on the safety lock box, and then have each affected worker place their safety lock and tag on the lock box.

Prior to any work being performed on the piece of equipment, machinery, or processes, the operating facility representative/start-up group and first-line supervisor will verify that it is inoperable. The operating facility representative/start-up group will attempt to operate the piece of equipment, machinery or process. After verifying it is inoperable, the switch will be returned to the "off" or "neutral" position.

Stored or residual energy will be dissipated by whatever means necessary. Capacitors will be discharged and high capacitance elements short-circuited and grounded by a qualified electrician.

Re-Energizing Equipment or Processes

When the required work is completed and the machinery, equipment or process can be returned to service, the first-line supervisor will contact the operating facility representative/start-up group to notify of completed work operations.

The first-line supervisor will make a visual inspection of the equipment, machinery, or process to insure all workers have completed their work and equipment, tools, and other materials is removed from the area.

After confirming all workers, materials, tools, and other equipment are out of the area, the operating controls are still in the “off” or “neutral” position, and each worker has removed their safety lock and tag, the first-line supervisor will remove his/her safety lock and tag from each of the isolating devices.

The management representative will notify the operating facility representative/start-up group that the equipment, machinery, or process is clear to be energized.

De-Energizing Fluid Processes

A management representative will coordinate with operating facility representative/start-up group when any fluid process requires de-energizing.

The management representative and operating facility representative/start-up group will identify all valves or gates and where blanks are required to be installed to isolate the work area. The operating facility representative/start-up group will notify their personnel that may be affected by the de-energizing.

The first-line supervisor overseeing the work will sign out sufficient safety locks and tags to completely isolate the system.

The operating facility representative/start-up group and first-line supervisor will verify that each valve or gate is in the “off”, “neutral” or “closed” position.

Once the valve or gate is in the “off”, “neutral”, or “closed” position, the operating facility representative will place a safety lock on the valve or gate first. Then the first-line supervisor will apply a safety lock to each valve or gate. The first-line supervisor will also apply a visible warning tag. The tag will contain the name of the first-line supervisor, company, date, and phone number.

Once the first-line supervisor has placed his/her safety lock(s) and tag(s) on the energy-isolating device, all affected workers will then apply a safety lock and tag to the energy-isolating device. Alternatively, the first-line supervisor may place the key(s) to his/her equipment safety lock(s) in a safety lock box, place his/her individual safety lock and tag on the safety lock box, and then have each affected worker place their safety lock and tag on the lock box. The required blanks will be placed at this time.

Prior to commencing work the operating facility representative and first-line supervisor will verify the system and all piping, hoses, valves, and processes are de-energized and that any stored energy is dissipated or restrained.

Welded valve connections should have the valve handle removed and stem tagged “DO NOT OPERATE”. All other valves and isolating devices must be physically prohibited from be operated.

Hydraulic and pneumatic equipment or machinery will be blocked to prevent movement.

Any vessel, pipe, hose, or process that contains a combustible or flammable liquid or gas will be purged with nitrogen or an alternate before work begins.

Re-Energizing Fluid Processes

When the required work is completed and the system can be returned to service, the first-line supervisor will contact the operating facility representative/start-up group to notify of completed work operations. The first-line supervisor will make a visual inspection of the area to ensure all workers, equipment, tools, and materials are removed from the area.

After confirming all workers, equipment, tools, and materials are removed from the area, the valves and gates are in the “off”, “neutral”, or “closed” position, and each worker has removed their safety lock and tag, the first-line supervisor will remove his/her safety lock and tag from each of the isolating devices.

The management representative will notify the operating facility representative/start-up group that the system is ready to be energized.

Electrical

No work will be performed on any energized electrical circuit, bussbars, equipment, or panels unless an approved work safety plan is submitted to Barnhill for review prior to performance of the work.

Electrical equipment and tools used on this project will be inspected to prevent any worker from receiving an accidental electrical shock.

This procedure will apply to all cord sets, portable electrical equipment, tools and appliances not part of any permanent building or structural electrical systems.

Ground Fault Circuit Interrupters (GFCI)

All cord sets and cord-plug electrical equipment, tools, or appliances that are 120 volts will be connected to a ground fault circuit interrupter (GFCI). No cord set or cord-plug electrical equipment, tool, or appliance will be plugged directly into any permanent building or structural electrical system. Exemptions are office equipment and appliances.

When the source of electricity is from a two-wire, single-phase portable or vehicle mounted generator rated not more than 5_kV, a GFCI is not required, as long as the generator is insulated from the frame and all other grounded surfaces.

Double-Insulated Tools

Double insulated tools are allowed on the project, if the case bears the Underwriters Laboratories “double-insulated” label. No tool where this label has been removed, painted over, or otherwise no readable will be allowed on the project.

Inspection Program

An inspection program will be established to inspect all cord sets, portable electrical equipment, tools, and appliances as described below and before first use; before returned to service following any repair, and after an incident that could have caused damage.

Daily Inspection – each cord set, attachment cap, plug and receptacle of cord sets, portable electrical equipment, tools, or appliances connected by a cord and plug, will be visually inspected daily by workers for external damage, such as deformed or missing ground pins, insulation damage, frayed wires, or indications of possible internal damage. Exceptions include cord sets and receptacles that are fixed to the permanent electrical system and are not exposed or damaged.

General Electrical Rules

All cord sets will be elevated above the work surface.

Wire, nails, or other conductive material will not be used to hang or attach cord sets or welding leads.

Cord sets that cross roadways will be protected from damage by vehicle and equipment traffic by devices such as hose bridges.

Light stringers will have the light bulbs protected.

Equipment and Vehicles

Heavy equipment (cranes, forklifts, dump trucks, excavators/backhoes, man-lifts, etc.) used on this project will be inspected prior to use and comply with applicable OSHA and ANSI standards, which will be documented.

Forklifts will be equipped with roll over devices.

Equipment that is equipped with a windshield will be free of cracks or other visible damage.

Any equipment that does not have a latching door will be equipped with seat belts and the operator will be required to wear it when operating the equipment.

Only company and/or delivery vehicles used for the sole purpose of conducting work tasks on-site are permitted in construction areas. Vehicles one ton or greater and equipment used on-site must have an auditable backup alarm. The driver and all passengers of any vehicle must wear seat belts.

No equipment or vehicle will be used to transport personnel unless it is specifically designed to do so. This includes beds of pick-up trucks.

Equipment operators are responsible to check their equipment daily to verify it is working properly. As a minimum, each operator will check:

- Brakes
- Lights
- Backup alarm
- Hydraulic systems
- Steering mechanism
- Mirrors

- Operating controls
- Fire extinguisher
- Limit switches
- Leaks

Equipment operators will possess the required training, certification, and licenses as required by law for the equipment that they are required to operate.

Mobile Cranes and Rigging

Mobile cranes will be operated in strict accordance with OSHA and ANSI regulations.

No crane will be brought onto the project without a current annual inspections and applicable load charts.

Crane operators will perform daily and monthly crane safety inspections. Crane operators are to turn the Daily Crane Safety Checklist in to their supervisor daily.

All cranes will be equipped with anti-two block devices on both the load and whip lines.

Hooks will be equipped with safety latches. Moused hooks will not be allowed.
When rigging a hook of a crane, ensure only one eye in the hook.

Supervision will review the safe operations of the crane with each operator.

Supervision will designate a qualified person to monitor all rigging. When the rigging does not fall within the expertise of the designated person, the load will not be lifted until a qualified person has reviewed the rigging.

The crane manufacturer's operating manual, instructions, and load charts for a specific crane will be used to determine the safe operation of that crane. Under ideal conditions, the manufacturer develops load charts and the typical field condition does not approach these ideal conditions.

Therefore, the following guidelines shall be adhered to:

1. The ground where the crane will be set up must be solid and able to support the weight of the loaded crane. Determine if underground utilities exist near where the crane will be set up.
2. Ensure the crane is level 360° and maintained during operation.
3. Extend outriggers fully or set per the manufacturer's recommendation for a particular lift configuration. Weight must be off the tires.
4. Cribbing or mats under outrigger pads should be of sufficient size and properly placed to ensure adequate soil bearing.
5. Before a lift, determine the load weight and load capacity. Crane capacity charts are the ideal gross capacity of the crane at certain boom lengths, boom angles, and load radius from the crane center pin.

- Deductions to the net capacity should be made per manufacturer’s load chart or operating manual for attachments such as jibs (stowed or attached), headache balls, wind, less than ideal setups, etc. to determine the load that can be safely listed.
 - Additional deductions to the net capacity are the weight of the crane’s load block, rigging, and amount of load line required to make the lift. Some manufacturers include the load line in their load charts but other like Manitowoc do not.
6. A designated qualified person will determine the load weight. Note: OEM drawings listing the equipment or machinery assemblies are not always accurate. Refer to the shipping weight or have the equipment or machinery assembly weighed. Calculate all structural loads and determine the center of gravity. Cranes equipped with systems that provide weight of a load as it is lifted will not be used to weight equipment or machinery assemblies.
 7. Determine the radius from the center pin of the crane to the load using a steel ruler. This is required for capacity and near capacity lifts.
 8. Determine the boom length, counterweight, and crane configuration to determine the correct load chart required.
 9. Position the hook over the “Center of Gravity” of the load before starting the lift.
 10. Position the crane so there is a minimum swing and load path clearance of two feet. Distance from overhead electrical will be a minimum of ten feet. When working near electrical sources (overhead lines or lighting) the crane should be grounded.

Crane operators are to know the weight of the load they are lifting.

A written lift or rigging plan is required for any lift where:

- The load is greater than 85% of the crane capacity as configured for the lift.
- Two cranes are use.
- The Project Manager/Superintendent or Safety Supervisor determines any lift to be non-routine.

Tower Cranes

Tower crane(s) will be equipped with and visible at all times, a substantial and durable load chart both in the operator cab and/or on the remote control console.

No employees will work or travel on any part of the crane boom without proper personal fall arrest equipment. No worker will be allowed to climb the tower or get on the boom when the crane is in operation.

Crane operators will perform daily and monthly safety inspections. Project management will ensure all tower crane operators are trained, experienced and competent.

No load will be swung over any public street that is occupied by the general public.

Prior to a load being swung over other workers, the subcontractor using the crane will provide a lookout that shall sound an alarm as the load is moved across the work area. The lookout shall wear fluorescent orange vests or other similar highly visibility garment.

The subcontractor will submit a written crane-dismantling plan to Barnhill for review prior to dismantling of the crane.

Demolition

Prior to start of any demolition work, subcontractor or Barnhill will perform an engineering survey of the building or area to be demolished to determine the condition of the area. No work will commence until this engineering survey has been completed.

Debris and material shall not be dropped through walls, floor holes, windows or other elevated work areas without the area below being barricaded and properly signed.

Debris chutes shall have a substantial gate at all elevated openings.

Barnhill may require the demolition contractor to submit a specific fall protection plan if the work requires the removal of flooring.

Demolition activities shall follow OSHA rules.

If demolition of a building will involve implosions, demolition contractor shall submit to Barnhill a detail safety plan specifically addressing site preparation, installation of explosives, debris/dust control, and blaster qualifications.

Silica

Project employees that perform any of the following work tasks will be protected from exposure to silica dust:

- Chipping, hammering, or mixing of refractory
- Abrasive basting using silica sand as a blasting medium
- Abrasive blasting of concrete, regardless of the type of medium
- Sawing, hammering, drilling, grinding, or chipping of concrete or masonry products
- Chipping, hammering, or mixing of concrete grout
- Demolition of concrete or masonry structures
- Dry sweeping or compressed air blowing of concrete, masonry, rock, or sand dust

Project employees performing any of the above tasks or who could be exposed to silica dust will receive hazard communication training on silica.

Acceptable engineering controls will be used when exposure to silica is likely. Examples of acceptable engineering controls are:

- Substitute blasting medium for less hazardous material with less than 1% silica
- Maintain an effective dust control program
- Use internal blast-cleaning machines
- Wet saw
- Use water through the drill stem

When acceptable engineering controls cannot be used, workers will wear respiratory protection, protective coveralls and gloves.

Project employees will follow these safe work rules when exposed to silica:

- Do not eat, drink, or use tobacco products in areas where silica dust is present.
- Always wash hands and face before eating, drinking, or using tobacco products.

First-line supervisors should consult their safety representative, the Barnhill site safety supervisor, or Barnhill Corporate Safety Director for further assistance.

Incidental Exposure to Presumed Asbestos Containing Material (PACM)

Due to an unplanned incident, trade/subcontractor workers on this project could be exposed to presumed asbestos containing material (PACM) when piping insulation or other similar material is accidentally damaged.

Trade/Subcontractor workers observing damaged or disturbed insulation are to assume it may contain asbestos. Until the asbestos abatement contractor determines the material does not contain asbestos containing material, workers will do the following:

- Warn other workers nearby of the disturbed or damaged material
- Contact you immediate supervisor
- Barricade the immediate area around the disturbed or damaged material.

The Owner is responsible for repair and cleanup of the disturbed or damaged material.

Lead

When welding, cutting, burning, grinding, chipping, abrasive blasting, or rivet busting on painted surfaces, subcontractors will be required to determine if the surface(s) contain lead based aping. If sampling results indicated lead based paint 0.02% lead by weight, OSHA regulations will be followed.

An initial hazard assessment is required and will be performed to determine worker exposure levels. The assessment will involve personal sampling of a representative group of workers performing different tasks. During the initial exposure assessment, workers will wear protective clothing and the proper respiratory protection until the results of the assessment are known.

Trade/Subcontractors will provide copies of sampling results to Barnhill.

Area sampling of a work are will not be used for determining worker exposure levels.

If sampling results indicate the exposure limits are above 30 $\mu\text{g}/\text{m}^3$, but below 50 30 $\mu\text{g}/\text{m}^3$, the following are required:

- Written compliance plan
- Medical surveillance (blood level and ZPP)

- Personal monitoring
- Hazard communication training for lead

If sampling results are above 50 $\mu\text{g}/\text{m}^3$, the following are required:

- Written compliance plan
- Engineering controls
- Respiratory protection
- Protective clothing
- Medical surveillance
- Clean change rooms and showers
- Clean lunchrooms
- Warning signs
- Training

Trade/Subcontractor will notify each worker in writing of their blood and/or personal monitoring results within five (5) working days after the results are known.

Caissons

When it is required to place a worker(s) inside a caisson, the subcontractor will submit to Barnhill a detailed work plan. The plan will include but not be limited to:

- Type of shield to be used
- Means of access for the worker(s)
- Method of atmosphere monitoring to be used
- Training to be provided to worker(s)

When workers will be required to enter a caisson four (4) feet in depth or greater, the workspace will be considered a “permit-required” confined space. All requirements of the confined space section of this IPP and OSHA regulations will be strictly followed.

Trade/Subcontractor will erect guardrail around the caisson opening(s) when the sleeve does not extend 44 inches above ground level.

Trade/Subcontractor will ensure worker(s) received confined space entry training and understand the contents of the written work plan.

Precast Concrete

Trade/Subcontractor will have a competent person who will be responsible for the inspection of all rigging and hardware and the supervision of the rigging of precast concrete members.

Unloading of Precast Concrete Members:

Prior to precast concrete members being unloaded, trade/subcontractor will:

- Inspect all rigging and hardware
- Ensure load is stable before releasing binders
- Ensure precise member is properly rigged
-

Placement of Precast Concrete Members

Trade/Subcontractor will ensure that:

-
- Precast members are not to be moved over other workers
 - Worker(s) involved in the setting or connection of precast members will strictly adhere to the 100% fall protection policy with no exceptions.
 - No worker(s) will use their hands to reach under a precast member to adjust a shim or bearing pad.

Post-Tensioning Operations

No worker(s) except those essential to the post-tensioning operation will be permitted behind the jack.

Trade/Subcontractor will erect warning signs and barriers to limit access to the post-tensioning area during post-tensioning operations.

Heat Stress

Work involving high temperature, radiant heat sources, high humidity, direct physical contact with hot objects, or strenuous physical activities have a high potential for inducing heat stress in workers engaged in construction activities.

Casual Factors

Age, weight, degree of physical fitness, degree of acclimatization, metabolism, use of alcohol or drugs, and a variety of medical conditions such as hypertension, all affect a worker's sensitivity to heat. Even the type of clothing the worker wears must be considered. Prior heat injury predisposes a worker to additional injury.

It is difficult to predict just who will be affected and when, because a worker's susceptibility varies. Environmental factors include more than ambient air temperature. Radiant heat, air movement, conduction, and relative humidity all affect a worker's response to heat.

Heat Disorders and Health Affects

Heat stroke occurs when the body's system of temperature regulation fails and body temperature rises to critical levels. **Heat stroke is a medical emergency, do not send the worker home or leave unattended.**

Primary Signs and Symptoms

- Confusion
- Irrational behavior
- Loss of consciousness
- Convulsions
- Lack of sweating
- Hot, dry skin

Heat Exhaustion – Symptoms often are non specific, and may be sudden in onset; these symptoms often resemble a viral illness. It is caused by dehydration where a large loss of body fluid causes a slowing of the circulatory system. **Remove from heat; give fluids, and adequate rest.**

Primary Signs and Symptoms

- Fainting
- Headache
- Nausea
- Vertigo

- Weakness
- Thirst
- Giddiness

It is recommended that water be consumed rather than carbonated beverages or sports drinks like Gatorade. These beverages can dehydrate a worker because of the sugars and other ingredients contained in the beverage.

Infection Control

It is important to control the risk of infection and disease when performing construction, demolition, and/or renovation in a health care environment.

Trade/Subcontractor will follow any client infection control procedure and the guidelines contained in this procedure.

Trade/Subcontractor will determine the level of infection control precautions prior to start of work using the following tables.

Type of Construction Activity	
Type A	Inspection and Non-Invasive Work Includes but not limited to: <ul style="list-style-type: none"> ▪ Temporary removal of no more than six ceiling tiles for inspection or minor repair ▪ Painting (but not sanding) ▪ Wall covering, electrical, trim work, minor plumbing and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
Type B	Small scale short duration activities (minimum dust) Includes but not limited to: <ul style="list-style-type: none"> ▪ Installation of telephone and computer cabling ▪ Access to chase spaces ▪ Cutting of walls or ceiling where dust migration can be controlled.
Type C	Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building component or assemblies Includes but not limited to: <ul style="list-style-type: none"> ▪ Sanding walls for painting or wall covering ▪ Removal of floor coverings, ceiling tiles and casework ▪ New wall construction ▪ Minor duct work or electrical work above ceilings ▪ Major cabling activities ▪ Any activity that can not be completed within a single work shift.
Type D	Major demolition and construction projects Includes but not limited to: <ul style="list-style-type: none"> ▪ Activities which require consecutive work shifts ▪ Requires heavy demolition or removal of a complete cabling system ▪ New construction/renovation.

Patient Risk Group	
Non-Patient Care Areas	Patient Care Areas

Offices Public Hallways	Cardiopulmonary Echocardiography Outpatient Services Nuclear Medicine Rehabilitation Radiology/MRI IMC Emergency Department	Labor and Delivery Laboratories Newborn Nursery Pediatrics Pharmacy Orthopedics Neurosurgery CCU Burn Unit Any area caring for immunocompromised	ICU CVICU Surgery Cardiac Cath Lab Oncology Dialysis Negative Pressure Rooms PACU CVOR
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Class of Precaution				
Patient Risk Group	Type of Construction Activity			
	Type A	Type B	Type C	Type D
Non-Patient Area	Class I	Class II	Class III	Class III
Patient Care Area	Class II	Class III	Class IV	

Once trade/subcontractor has determined the Class of Precaution, the following precautions will be taken to ensure adequate infection control has been taken.

Precautions for Infection Control		
Type Class	During Work	Upon Completion of Work
Class I	<ul style="list-style-type: none"> ▪ Minimize dust ▪ Immediately replace all ceiling tiles displaced for visual inspection 	<ul style="list-style-type: none"> ▪ Clean work area
Class II	<ul style="list-style-type: none"> ▪ All Class I requirements ▪ Prevent airborne dust from dispersing into atmosphere ▪ Water mist working surface to control dust ▪ Seal unused doors with tape ▪ Block off and seal air vents ▪ Dust mat at entrance and exit of work area ▪ Remove or isolate HVAC system in area where work in being performed 	<ul style="list-style-type: none"> ▪ All Class I requirements ▪ Wipe work surface with disinfectant ▪ Contain construction waste and transport in tightly covered container ▪ Wet mop/vacuum with HEPA filter ▪ Remove isolation of HVAC
Class III	<ul style="list-style-type: none"> ▪ All Class I and II requirements ▪ Complete critical barriers (sheetrock, plywood, plastic) to seal area from non work area ▪ Maintain negative air pressure with work are using HEPA filtration ▪ Contain construction waste in tightly covered container 	<ul style="list-style-type: none"> ▪ All Class I and II requirements ▪ Remove barriers only upon completion of work ▪ Remove barrier carefully to minimize dust ▪ Wet mop area with disinfection

Class IV	<ul style="list-style-type: none"> ▪ All Class I, II, and III requirements ▪ Seal holes, pipes, conduits, and punctures appropriately ▪ Construct decontamination room and require all workers to be decontaminated with HEPA vacuum prior to departing the work area ▪ Wear tyvex coveralls and shoe coverings 	<ul style="list-style-type: none"> ▪ All Class I, II and III requirements
-----------------	---	--

Environmental

Trade/Subcontractors will be responsible to comply with all applicable Federal, State, and local environmental laws and regulations. Trade/Subcontractors will plan all work accordingly to prevent potential environmental impact from its operations and activities. Barnhill may reference its Environmental Management System when addressing issues involving the environment.

Erosion Control and Wetlands

Erosion and Sedimentation

Trade/Subcontractors will control all erosion and sedimentation from site drainage and run-off, especially around streams, lakes, ponds, or wetland areas. Drainage and run-off from temporary roads, parking areas, lay-down areas, de-watering and final grading activities at the end of construction will be controlled.

Trade/Subcontractor will be responsible to acquire all permits that may be required before work will begin.

Trade/Subcontractor will visually inspect all silt fencing daily and repair damaged fencing immediately. The trade/subcontractor will further report damaged silt fencing to Barnhill.

Wetlands

Trade/Subcontractors will be responsible for ensuring all permits from the Army Corps of Engineers have been acquired when disturbing wetland areas. There are several factors that define what constitutes a wetland area. These factors include soil type and the presence of flora (plant life) and/or fauna (animal life) typically indigenous to wetland areas.

Hazardous Materials and Waste

Hazardous Materials

Trade/Subcontractors will comply with all laws governing the storage, handling, and disposal of Hazardous Materials and Waste.

Trade/Subcontractors that store, handle, or dispose of hazardous material will:

- Have a copy of the Material Safety Data Sheet (MSDS) for each hazardous material at their project on-site office.
- Develop a written Emergency Response Procedure for accidental discharge or spills. Subcontractor will provide Barnhill a copy of this Emergency Action Plan.

- Train subcontractor workers how to properly store, handle, and dispose of hazardous material. Additional training will be conducted for accidental discharge and spill response.
- Sufficient spill kits available at each location that hazardous material is stored or handled.
- Fueling areas will meet OSHA and all other applicable laws and regulations.

Trade/Subcontractors that use chemicals and chemical based products that are classified as hazardous materials will ensure they are properly stored, used and disposed of in an approved manner. Examples are:

- Paints (varnish, shellac, lacquers, urethanes, stains, etc.)
- Oils
- Greases
- Solvents and solvent-based cleaning fluids
- Acids
- Caustics
- Wood Preservatives
- Metal corrosion inhibitors

Trade/Subcontractors that will handle hazardous solid materials that pose environmental health and safety risks, such as asbestos, PCBs and mercury, will be certified to handle and remove these type hazardous materials.

Non-Hazardous Materials

Trade/Subcontractors will develop a Waste Management Plan detailing how they intend to prevent waste and reduce the amount of waste being diverted to a landfill.

Trade/Subcontractors will:

- Determine what waste can be recycled in the local market
- Provide sufficient recycling containers in the subcontractor work area
- Train subcontractor workers on the Waste Management Plan
- If waste must be sorted at the jobsite, correctly identify the recycling containers in English and Spanish.

On-site burning is prohibited on Barnhill projects.

Contaminated Soil or Groundwater

Trade/Subcontractor will quickly identify all contaminated soil and groundwater to prevent environmental problems as well as potential health and safety problems.

Concrete

The effluent from washing out concrete trucks poses an environmental threat, especially near streams, lakes, ponds, or wetland areas. Trade/Subcontractor will determine whether discharging waste concrete on the site constitutes solid waste disposal and, if so, whether or not a permit is required.

Machinery and Equipment

Trade/Subcontractors will notify Barnhill for approval prior to performing any service or maintenance on machinery or equipment. All oil or fuel spills will be investigated and reported immediately to Barnhill.

Barnhill may require Trade/Subcontractor to remove any machinery or equipment that is not in good working order.

Trade/Subcontractors required to clean equipment may use small quantities of solvents or cleaning materials, dispensed from approved containers and applied using a rag and hand wipe-down operation.

Indoor/Outdoor Air Quality

Introduction

The following is an Indoor Air Quality Plan developed for Barnhill projects for the purpose of ensuring that these users will be un-impacted by contaminants from the construction process. The prevention of indoor air quality problems begins with early recognition of potential contaminant sources from the construction process and construction equipment. Identifying potential pathways of contaminants is essential to limiting their access into the building. Control procedures can be implemented to eliminate the contaminants before they become a problem. All the notations in this document are referencing SMACNA guidelines. In addition to the SMACNA notations are IAQ guidelines for occupied buildings.

Potential IAQ Contaminant Sources

Site Soils

Minimize tracking of any soil and potential soil contaminants by maintaining clear and clean access to the building. Limit project access points as much as possible. Keep stone/gravel walks maintained. Provide access ramps with cleats to clean shoes at entrances. Keep roadways stoned, compacted and or scraped for better access and wear. Keep dusty conditions controlled by using a water truck. Expedite final grading and roadway base pavement to eliminate the source. Temporary roadways using stone are to be constructed per the logistics plans.

Masonry Products and Dust

Stage only as much block to lay in the bldg. Mix mortar products outside the building. Install block in a clean and orderly manner. Minimize spillage and clean up regularly. Use wet saw for cutting block. Set up Visquene barriers to minimize tracking of Dust to other parts of the project. Coordinate/ stagger trade work times so that any effect is minimized on adjacent work. Mason is responsible to remove masonry debris on a daily basis to designated dumpster using skip pans and forklift.

Concrete Products and Dust

Coordinate all concrete saw cutting with other work activities. Use wet saws/drills. Vacuum up concrete cutting slurries quickly. Set up Visquene barriers to minimize tracking of Dust to other parts of the project. Coordinate/ stagger trade work times so that any effect is minimized on adjacent work.

Sheetrock and Sheetrock Dust

Store Sheetrock on cribbing and protect from weather. Delay sheetrock hanging until substantially dried in. Hang sheetrock ½" above floor to limit wicking effect. Install moisture resistant sheetrock at damp areas and shafts. Clean up waste sheetrock quickly to minimize debris spread and larger areas being contaminated. Use sweeping compound to minimize dust transport. Isolate finishing work areas with Visquene drapes if possible. Coordinate/Stagger work times and areas with other trades so as to minimize any effects on adjacent work and workforce.

Paints

Use low VOC paints. Provide proper airflow and ventilation. Coordinate/Stagger work times and areas with other trades, as to minimize any effects on adjacent work and workforce.

Insulation

Keep unused insulation wrapped and protected from weather. Keep material stored on cribbing and palletized. Coordinate/ stagger trade work times so that any effect from installation is minimized on adjacent work and workforce. Keep cutting operation to a localized area, and protect/isolate. Install Vapor barrier/sheeting to minimize additional exposure. Clean work areas regularly.

Ceiling Tiles

Keep ceiling tiles wrapped and protected from weather until use. Keep palletized. Coordinate/ stagger trade work times so that any effect from installation is minimized on adjacent work and workforce. Keep cutting operation to a localized area, and protect/isolate. Clean work areas regularly.

Caulking

Use low VOC caulks. Provide proper air flow and ventilation. Coordinate/Stagger work times and areas with other trades to minimize any effects on adjacent work and workforce.

Adhesives, Solvents, and Cleaning Agents

Use low VOC products. Mix any chemical products outside the building in designated area. Keep chemical spill kits readily available and neutralize/cleanup spills immediately. Coordinate/stagger work times and areas with other trades to minimize any effects on adjacent work and workforce.

Fuel

Restrict equipment fueling and maintenance to designated areas outside the building only.

Pesticides

Notify subcontractors and adjacent activities of all grade slab pretreatments. Provide adequate ventilation. Coordinate/stagger work times and areas with other trades to minimize any effects on adjacent work and workforce.

Tobacco Products

Smoking while on site is permitted at designated areas only. No Smoking inside building and storage areas. Restrict tobacco product use to designated areas outside the building once building is dried in. Smoking area will be 25 f.t. minimum away from entrances. Impose fines under safety program to enforce.

Moisture/Mold

Be aware of moisture and humidity levels before and after building dry in. Recognize that mold can form on most surfaces but sheetrock is highly susceptible. Prior to dry in, limit installation of Sheetrock to areas only where necessary due to mechanical installations. Sheetrock is susceptible to mold growth with minimal moisture. Effected sheetrock to be removed and replaced or treated with a Fungicide/inhibitor. HVAC system components, e.g. Cooling coils, collection pans, and reheat coils should be checked. Exterior façade and flashing detailing will be inspected as part of the exterior quality control program to ensure that moisture seepage after dry-in may be avoided.

Spray Fireproofing

Spray fireproofing work will be limited to the penthouses and walkways. Adjacent areas and systems like shafts, duct, and AHU's effected will be temporarily protected with Visquene/Plastic sheeting. Mechanical systems component hangers will be installed prior to spraying to minimize spray fireproofing knockoff. Cleanup shall occur on a daily basis. Final spray fireproofing patching will be coordinated and all systems will be protected.

As a general note, keep wet product containers closed as much as possible.

Potential Contaminant Sources from Equipment

Generators

Permanent temporary power has been available on site, with dedicated panels on each floor and wing of the building. Generator use is limited to areas outside the building. Generators are to be located 25 ft. away from entrances and exhaust is to be directed away from the building.

Forklifts, Scissors lifts

Equipment of this type is a rechargeable electric type.

Mixers and Welding Generators

Operate equipment outside the building in designated areas, with exhaust pointing away from the building, 25 ft. away from entrances. Set up outside welding stations when possible. Provide adequate ventilation for welding gasses.

Torches

Provide adequate ventilation and limit inside use once building is dried in.

Temporary Heaters: The use of temporary heaters will not be required. The permanent HVAC systems will be utilized during the construction phase.

Saws

Minimize the use of gas power chop saws in the building. Identify and isolate areas of saw cutting, by draping visquene curtains to limit contaminant dispersion. Equipment should be cycled off when not in use.

Pathways That Contaminants Enter/Move through the Building

Tracking Questions

- Check entryways, are paths clear and clean?
- Are stone walks in place?
- Wood Walkways/ramps have batons to clean shoes?
- Shoe cleaners/bar grating mats at entrances to remove dirt?
- Site road clear, stoned and walkable?
- Is site drainage in place and working?
- Generators, mixers and other gas powered equipment in acceptable areas, at an acceptable distance from building entry points and exhaust pointed away from the building?

Direct Exposure

Minimize the effects of the direct exposure of contaminants on workers. Workers can transport contaminants from space to space. Increase the alertness of the worker to these potential contaminations. Utilize tacky mats, air locks, or throwaway temporary clothing where practical.

Pressurization

Contaminants will generally migrate from the supply air (pressurized) to the return air/exhaust air (negative pressure). Temporary construction HVAC systems to condition the building will need to be monitored for characteristics of contaminant migration. Potential Points of accumulation will need to be identified and monitored.

HVAC Systems

Construction Filter assemblies @ AHU outside air intakes? Return air ducts isolated and/or construction filters in place. Are the construction filters minimum MERV 8 rating? Keep all duct that is not in temporary construction use sealed. Monitor all supply and return duct ends to verify if sealed. This is especially important during sheetrock finishing activities.

Control of Contaminants

Protect HVAC systems in the following ways. Keep Duct systems, both supply and return ductwork ends sealed to keep out potential contaminants. Duct work assembled on site will be wiped down and sealed prior to installation. Keep open duct ends wrapped after being hung in place. Keep Air Handlers sealed in factory wraps as long as is possible. Limit personnel access into units. Only activate HVAC systems in areas that have been isolated from major construction areas. Sequence HVAC start-up with schedule to ensure only required portions of the system are online. Operate on 100% outdoor air during construction. Install MERV 8 filters on plenum air intakes. Install MERV 13 filters for building flush out. Separate return air ducts from air handlers to ensure that contaminants are not drawn into the system accidentally. Construction Manager to monitor filters daily. Localized duct cleaning may be necessary at supply and return grilles where drywall activities interact with the ductwork. Subcontractor is to maintain duct Cleanliness to levels Per SMACNA Guidelines. Purchase extended warranty, temporary filters, and additional maintenance service in bid packages to HVAC installer to ensure system operates as new when turned over to the owner. The use of temporary filters and the sealing off of duct work to not allow dust into the system should eliminate the need to clean the duct, however, duct cleaning may be an option if the system becomes contaminated. Please Note: Mechanical rooms should not be used to store materials and do not exhaust air where it can be drawn back into the building.

Source Control of contaminants begins with using and/or substituting low VOC products. Use Electric or propane propelled equipment for interior use. Keep all exhaust producing equipment outside the building in designated areas. Perform regular cleanups to minimize debris buildup.

Pathway Interruption can be accomplished in the following ways. Pressurizing the construction space will aid in pushing contaminants out of the space. Keeping the systems running full time will keep these from migrating back into the space during off hours. Temporary dust curtains made out of Visquene can help create a barrier for contaminants. Maintain and fuel all small gas powered equipment outside the space. Temporarily sealing the building may be necessary to keep migration of exterior contaminants into the space.

Housekeeping of the space on a regular basis is necessary. Daily cleanup is required, in addition to joint cleanup efforts weekly. Use sweeping compounds to minimize airborne dust. Use HEPA filter vacuums to keep vacuumed contaminants in the vacuum cleaner and not back into the space. Keep work areas dry. Keep all porous materials up on cribbing and keep all surfaces clean.

Schedule work activities that create large amounts of contaminants after hours so it does not cross contaminate other work. Buffer zones can also be created around the work areas to keep adjacent areas from being contaminated. Coordination of trades at a very detailed level may be necessary to minimize cross contamination.

Dust Control

Barnhill considers blowing dust as a form of erosion. Trade/Subcontractors will take necessary steps to control blowing dust within their work area.

Endangered Species

Trade/Subcontractors will comply with all laws and regulations when work operations may border or contain endangered species.

Trade/Subcontractors will educate workers about the animals and take necessary steps to minimize the impact on them and their habitat. Trade/Subcontractors will further ensure the area is properly identified.

Trade/Subcontractors will further ensure hazardous material and fuel storage is a safe distance from these designated areas.

END OF DOCUMENT

Section Seven

Bid Forms

Section Seven – Table of Contents

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SAMPLE FORM OF PROPOSAL

Project: UNC Charlotte ACADEMIC COMPLEX RENOVATIONS
University of North Carolina at CHARLOTTE
Charlotte, NC

To: C/o Barnhill – CM@Risk

This BID PACKAGE: *Bid Package Listed Here*

BIDDER: _____

NC LICENSE #: _____

DATE: October 18, 2016

BID TIME: 2:30 PM

The undersigned, as bidder, hereby declares that the only person or persons interested in this proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this proposal or in the contract to be entered into; that this proposal is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud. The bidder further declares that he has examined the site of the work and the contract documents relative thereto, and has read all special provisions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed.

The Bidder proposes and agrees if this proposal is accepted to contract with **Barnhill** in the form of contract specified in the Project Manual, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the construction of:

Bid package listed here

in full in complete accordance with the plans, specifications and contract documents, within the overall project time. (ref CM @ Risk Project Schedule for Milestones), to the full and entire satisfaction of the State of North Carolina, UNCC, and Barnhill Contracting Company with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and the contract documents, for the sum of:

BID PACKAGE *Bid package listed here* – with attachment A scope of work.

UNC Charlotte Academic Complex Renovations Base Bid:
Dollars (\$) _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

ALTERNATES:

Should any of the alternates as described in the contract documents be accepted, the amount written below shall be the amount to be added to the base bid. Work of the selected Alternates must be completed within the overall project time of 90 calendar days:

1. Add Cost for Payment & Performance Bond: Dollars (\$) _____

UNIT PRICES:

Unit prices quoted and accepted shall apply throughout the duration of the contract. Unit prices are net, and no profit or overhead will be added or deducted with the application of unit prices.

If necessary, we agree to provide labor and/or materials and/or equipment to perform the following work on a unit price basis for the unit prices stated below:

None Listed.

MINORITY BUSINESS PARTICIPATION REQUIREMENTS:

Provide with the bid - Under GS 143-128.2(c) the undersigned bidder shall identify **on its bid** (Identity of Minority Business Participation Form) the minority businesses that it will use on the project with the total dollar value of the bids that will be performed by the minority businesses. **Also** list the good faith efforts (Affidavit **A**) made to solicit minority participation in the bid effort.

NOTE: A contractor that performs all of the work with its own workforce may submit an Affidavit (**B**) to that effect in lieu of the participation form and Affidavit (**A**) required above.

After the bid opening - The Owner will consider all bids and alternates and determine the lowest responsible, responsive bidder. Upon notification of being the apparent low bidder, the bidder shall then file within 72 hours of the notification of being the apparent lowest bidder, the following:

An Affidavit (**C**) that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the 10% goal established. This affidavit shall give rise to the presumption that the bidder has made the required good faith effort and Affidavit **D** is not necessary;

OR

If less than the 10% goal, Affidavit (**D**) of its good faith effort to meet the goal shall be provided. The document must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations and other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract.

Note: Bidders must submit **with their bid** the Identification of *Minority Business Participation* list and *Affidavit A or Affidavit B* as applicable. Failure to file a required affidavit or documentation with the bid or after being notified apparent low bidder may be grounds for rejection of the bid.

PROPOSAL SIGNATURE PAGE

The bidder further proposes and agrees to commence work under this contract on a date to be specified by the Construction Manager at Risk, and shall pursue the scope of work included in his contract in accordance with the schedule prepared by the Construction Manager at Risk.

Respectfully submitted this,

_____ day of _____, 2013
(Write the date of the month in words) (Write the name of the current month)

WITNESS:

By:

(Witness signs here if you are a proprietorship
Or partnership)

(signature)

(Print name of person signing bid)

ADDRESS:

TITLE:

(owner, Partner, President or Vice President)

LICENSE # _____

FEDERAL ID # _____

ATTEST:

By: _____

TITLE:

(CORPORATE SEAL)

(Corporate Secretary or Asst. Secretary only)

Addendum received and used in computing bid:

Addendum No. 1 _____ Addendum No. 2 _____ Addendum No. 3 _____ Addendum No. 4 _____

FORM OF BID BOND

KNOW ALL MEN BY THESE PRESENTS THAT _____
_____ as
principal, and _____, as surety, who
is duly licensed to act as surety in North Carolina, are held and firmly bound unto the State
of North Carolina* through _____ as
obligee, in the penal sum of _____ DOLLARS, lawful money of
the United States of America, for the payment of which, well and truly to be made, we bind
ourselves, our heirs, executors, administrators, successors and assigns, jointly and
severally, firmly by these presents.

Signed, sealed and dated this ____ day of ____ 20__

WHEREAS, the said principal is herewith submitting proposal for
and the principal desires to file this bid bond in lieu of making
the cash deposit as required by G.S. 143-129.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION is such,
that if the principal shall be awarded the contract for which the bid is submitted and shall
execute the contract and give bond for the faithful performance thereof within ten days
after the award of same to the principal, then this obligation shall be null and void; but if
the principal fails to so execute such contract and give performance bond as required by
G.S. 143-129, the surety shall, upon demand, forthwith pay to the obligee the amount set
forth in the first paragraph hereof. Provided further, that the bid may be withdrawn as
provided by G.S. 143-129.1

_____(SEAL)

_____(SEAL)

_____(SEAL)

_____(SEAL)

_____(SEAL)

Form OC-10

SECTION 308 FORM OF PAYMENT BOND

Date of Contract: _____

Date of Execution: _____

Name of Principal: _____

(Contractor)

Name of Surety: _____

Name of Contracting Body: _____

Amount of Bond: _____

Project: _____

KNOW ALL MEN BY THESE PRESENTS, that we, the principal and surety above named, are held and firmly bound unto the above named contracting body, hereinafter called the contracting body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the contracting body identified as shown above and hereto attached:

NOW, THEREFORE, if the principal shall promptly make payment to all persons supplying labor/material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then this obligation to be void; otherwise to remain in full force and virtue.



SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Executed in _____ counterparts.

Witness:

Contractor: (Trade or Corporate Name)

(Proprietorship or Partnership)

By: _____

Attest: (Corporation)

Title: _____
(Owner, Partner, or Corp. Pres. or Vice Pres. only)

By: _____

Title: _____
(Corp. Sec. or Asst. Sec. only)

(Corporate Seal)

(Surety Company)

Witness:

By: _____

Title: _____
(Attorney in Fact)

Countersigned:

(Surety Corporate Seal)

(N.C. Licensed Resident Agent)

Name and Address-Surety Agency

Surety Company Name and N.C. Regional or Branch Office Address

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT
FORM OF PERFORMANCE BOND

Date of Contract: _____

Date of Execution: _____

Name of Principal: _____
(Contractor)

Name of Surety: _____

Name of Contracting Body: _____

Amount of Bond: _____

Project: _____

KNOW ALL MEN BY THESE PRESENTS, that we, the principal and surety above named, are held and firmly bound unto the above named contracting body, hereinafter called the contracting body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind, ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the contracting body, identified as shown above and hereto attached:

NOW, THEREFORE, if the principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the contracting body, with or without notice to the surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue.

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Executed in _____ counterparts.

Witness:

Contractor: (Trade or Corporate
Name)

(Proprietorship or Partnership)

By: _____

Attest: (Corporation)

Title: _____
(Owner, Partner, or Corp. Pres. or Vice Pres.
only)

By: _____

Title: _____
(Corp. Sec. or Asst. Sec.
only)

(Corporate Seal)

(Surety Company)

Witness:

By: _____

Title: _____
(Attorney in Fact)

Countersigned:

(Surety Corporate Seal)

(N.C. Licensed Resident Agent)

Name and Address-Surety Agency

Surety Company Name and N.C.
Regional or Branch Office Address

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT**FORM OF NON-COLLUSION & CONTRACT AFFIDAVIT**

STATE OF: NORTH CAROLINA

COUNTY OF: _____

PROJECT NAME : UNCC Academic Complex Renovations
UNCC
Charlotte, NCCONTRACTOR _____, being first duly sworn, deposes and says
that he is _____ (sole owner, a partner, president, secretary, etc.) of
_____, the party making the forgoing bid;

- 1) That such bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation;
- 2) That the proposal is made without contact or collusion, directly or indirectly, with any other person, partnership, company, association, organization or corporation making a bid proposal;
- 3) That said bidder has not directly or indirectly induced or solicited any other bidder to submit a false or sham bid;
- 4) That said bidder has not directly or indirectly induced, colluded, or conspired, convinced or agreed with any bidder or anyone else to refrain from bidding;
- 5) That said bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with any one to fix the Bid Price of said bidder or any other bidder, or to fix any overhead, profit or cost element of such Bid Price, or of that of any other bidder, or to secure any advantage against the UNCC or any party interested in the proposed Contract;
- 6) That the bidder declares that he/she has examined the site of the work and the contract document relative to thereto, and has read all special provisions furnished prior to the opening of bids; that he /she has satisfied themselves relative to the work to be performed
- 7) That the bidder proposes and agrees if this proposal is accepted to contract with Barnhill Contracting Company on behalf of the UNCC in the form of contract specified and to furnish all necessary material, equipment machinery, tools, apparatus, means of transportation and labor necessary to complete the construction of Denny, Macy, Bernard, Garringer, and Winningham Renovations as reflected in the scope of work as listed on the attached bid form.
- 8) And that in full satisfaction of the UNCC, Barnhill Contracting Company with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions, the Supplementary General Conditions and the contract documents.

I hereby submit that all statements contained above in all respects are made in good faith and are true as written.

Signed: _____

Title: _____

Subscribed and sworn to before me this

_____ day of _____, 20__

Seal

Notary Public

My Commission Expires: _____



BARNHILL CONTRACTING COMPANY

STANDARD SUBCONTRACT DOCUMENT

5701 Westpark Drive
Suite 205
Charlotte, NC 28217
704-679-6070 • Fax 704-579-2039

Contractor Job Number
187514

11/18/14

www.barnhillcontracting.com

THIS AGREEMENT made on 11/18/14 by and between

TILESETTERS OF RALEIGH 5411 OLD POOLE ROAD RALEIGH, NC 27610

called the **Subcontractor** AND

Barnhill Contracting Company, 5701 Westpark Drive, Suite 205, Charlotte, NC 28217 hereinafter called the **Contractor**.

Work:

Project: ECC BIOTECH MEDICAL ("Project")
Owner: THE HORIZON HEALTH PARTNE ("Owner")
Architect-Engineer: ("Architect")
Prime Contract: Barnhill Contracting Company ("Contractor")
Subcontract Price: \$ 36,912.00 ("Price")

Scope of Work Breakdown:

Item No.	Description	Cost Distribution	Cost Type	U/M	Unit Price	Quantity	Amount	Retained Percent
CONV	HARD TILE	0009009300	S		0.0000	0.00	36,912.00	5.00

SUBCONTRACTOR AGREES TO PROVIDE A DETAILED SCHEDULE TO THE CONTRACTOR FOR USE IN PREPARING A C.P.M. ON OR BEFORE:

See Schedule "A"

SUBCONTRACTOR AGREES TO PROVIDE ALL SUBMITTALS TO THE CONTRACTOR ON OR BEFORE:

See Schedule "A"

MONTHLY BILLING DATE: 20th of Each Month ("Monthly Billing Date")

IS A PAYMENT AND PERFORMANCE BOND REQUIRED?

***** SUBCONTRACTOR MUST EXECUTE AND RETURN THE SUBCONTRACT WITHIN TEN (10) CALENDAR DAYS ***
OF THE AGREEMENT DATE LISTED ABOVE OR BARNHILL WILL HAVE THE OPTION TO DECLARE THE
DOCUMENT VOID.**

Initials: _____

* SUBCONTRACTOR MUST EXECUTE AND RETURN THE SUBCONTRACT WITHIN TEN (10) CALENDAR DAYS OF THE AGREEMENT DATE LISTED ABOVE OR BARNHILL WILL HAVE THE OPTION TO DECLARE THE DOCUMENT VOID.

SAMPLE

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

1. **SCOPE OF WORK.** Subcontractor shall perform and furnish all labor, supervision, services, materials, equipment, tools, scaffolds, transportation, storage and all other things necessary to prosecute and complete the work identified and described in **ATTACHMENT "A"** attached hereto (the "Work") being a portion of the Work required of Contractor under the Contract between Owner and Contractor. The Work shall be performed by Subcontractor in a good and workmanlike manner strictly in accordance with the Contract Documents, consisting of the Contract and the plans, specifications including, but not limited to, general, special and supplemental conditions, addenda and other documents identified in **ATTACHMENT "B"** attached hereto and all subsequently and duly issued modifications thereto.

Subcontractor shall give his personal supervision to the work or have a competent foreman or superintendent, satisfactory to the Contractor, on the Work at all times during progress, with full authority to act for the Subcontractor. The Contractor may remove any employee of the Subcontractor who is considered unsatisfactory. Subcontractor agrees to cooperate fully with the Contractor, the Contractor's project superintendent, and all other subcontractors that the Contractor may employ on the Project.

With respect to the Work, Subcontractor agrees to be bound to Contractor by the terms and conditions of the Contract Documents and this Subcontract and hereby assumes toward Contractor all of the duties, obligations and responsibilities that contractor, by the Contract, has assumed toward Owner. The contract agreement between Contractor and Owner is available for Subcontractor's review at the Contractor's office during normal working hours.

It is expected that Subcontractor has received Specifications and/or Drawings appropriate for his needs in purchasing material and performing the Work. If this is not the case, it is the duty of the Subcontractor to notify in writing and request information from the Contractor.

Subcontractor represents and warrants that it has, prior to entering into this Subcontract, carefully examined and fully understands all contract documents, physically inspected the premises, fully investigated the type and nature of work to be performed by it, and all of the conditions (both natural and artificial) and circumstances surrounding or in any way affecting such work, the difficulty of such work and the time within which it must be performed. Further, Subcontractor represents that it enters into this Subcontract solely on the basis of such examination, inspection and investigation, and upon its asserted knowledge and experience performing the work described herein, and not because of, nor in reliance upon, any representation or opinion rendered by either the Contractor or the Owner or any of their representatives, officers, employees or agents.

2. **PRICE.** Contractor shall pay to Subcontractor for the satisfactory performance and completion of its Work and all the duties, obligations and responsibilities of Subcontractor under this Subcontract, the sum set forth above as the Price, subject to additions and deductions herein provided. To the extent this Subcontractor's Work is to be performed on a unit price basis, the Price shall be computed in accordance with the unit prices set forth in **ATTACHMENT "C"**, based on actual quantities determined in accordance with the Contract Documents and this Subcontract. The Price and all unit prices shown in **ATTACHMENT "C"** shall be deemed to include all costs of Subcontractor's performance of the Work, including, but not limited to, the costs of labor, supervision, services, materials, equipment, tools, scaffolds, transportation, storage, insurance and taxes, and allowance for overhead and profit.

Within 10 days from date of subcontract, Subcontractor shall submit to Contractor a detailed schedule showing a cost breakdown (with proper share of associated overhead and profit) of the Price according to the various line items, or parts, of the Work. If Subcontractor fails to deliver its cost breakdown, Barnhill will have the right to make a cost breakdown, which Subcontractor shall be deemed to have accepted as its own. This breakdown is required for Owner's accounting records and for use only as a basis of checking Subcontractor's applications for payment or supporting Contractor's applications for payments under the Contract.

3. **TIME. TIME IS OF THE ESSENCE.** Therefore, Subcontractor shall: (a) submit to Contractor within 10 days a detailed, reasonable proposed schedule for Subcontractor's part of the Work for Contractor's use in preparing an overall progress schedule for the entire work and its several parts under the Contract, as provided in ¶ 4 hereof and **ATTACHMENT "D"** if subcontractor fails to submit such a schedule, or if Barnhill finds the submittal unreasonable, Barnhill will meet with the Subcontractor to reasonably schedule its work within the overall schedule; (b) begin the Work upon Contractor's order to do so; (c) coordinate and perform the Work; and its several parts, diligently and promptly and in such order and sequence as Contractor may direct and as will assure the efficient and timely prosecution, and will not delay completion, of the entire work and its several parts under the Contract; and (d) furnish at all times sufficient, qualified and competent forces and supervision, and adequate, conforming and usable materials, equipment, plant, tools and everything necessary to achieve progress according to Contractor's progress schedule

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

including any specific schedule for Subcontractor's Work attached hereto as **ATTACHMENT "D"** and any revisions thereof by Contractor. If Subcontractor fails to perform as outlined in this paragraph, Barnhill shall have the right to supplement the Subcontractor's work force and/or equipment, as required to maintain the schedule and backcharge the Subcontractor therefore.

Without limiting the generality of the foregoing, Subcontractor shall: (a) submit, with its proposed schedule, information showing the time required to prepare and approve shop drawings, to fabricate and deliver materials and equipment, and to install the Work; (b) order (for manufacture and/or purchase and delivery) all materials required for performance of the Work within 10 days of the date of this subcontract in order to avoid delays caused by unavailability; (c) furnish Contractor within 10 days of the date of this subcontract a list of major materials and equipment required for the Work, showing the name, address and telephone number of the supplier and the date on which such materials purchase orders and subcontracts (with price information deleted); (e) cause a qualified home office supervisory representative (while Subcontractor has forces at the Project site and for two weeks prior thereto) to attend weekly (or as scheduled) progress meetings; and (f) notify Contractor immediately by telephone and confirm in writing within 72 hours, if Subcontractor finds that any items cannot be delivered as required to maintain Contractor's progress schedule. If Subcontractor fails to have a qualified representative attend any meeting at which attendance is required, Subcontractor shall be deemed to have accepted all decisions made at such meeting and shall perform in accordance with all such decisions.

4. **Performance Schedule.** TIME IS OF THE ESSENCE. This is repeated herein for special emphasis. Contractor will issue a Performance Schedule for the Project and a copy will be provided to each Subcontractor. All work shall be performed in accordance with the Performance Schedule. The Performance Schedule will be updated or revised from time to time in order to properly coordinate and sequence the work. Contractor will consult with Subcontractor on updates or revisions to the Performance Schedule; however, it is specifically agreed that Contractor shall manage the schedule and may deviate from prior schedules in order to resequence and compress durations to react to changing conditions.

Subcontractor shall commence work immediately in accordance with notification by Contractor and the Performance Schedule and shall maintain progress in strict compliance with the Performance Schedule. Subcontractor shall supply sufficient manpower, equipment and competent supervision to accomplish the work in all areas, at whatever rate, is required to maintain its schedule and the Project Performance Schedule. Work shall be done in such a manner as not to delay, hinder or interfere with any other items of work or the final completion of the project, but in no event shall progress be less than as set forth in Subcontractor's Performance Schedule as set forth in **ATTACHMENT "D"**.

Subcontractor will have two weeks from the issuance of the Master Performance Schedule to review and return written comments to Contractor concerning the sequence and duration of Subcontractor's activities. Also, within two weeks, Subcontractor shall send to Contractor a complete list of shop drawings and submittal data to be submitted with specific information regarding time to prepare shop drawings, fabricate and deliver materials after the approval of shop drawings. Subcontractor shall also submit a complete list of its material orders for all major and critical items showing the items, supplier and promised delivery date for each item and a breakdown of the Subcontractor's manpower estimate for each area, by activity, for scheduling purposes.

Subcontractor will immediately submit all shop drawings, samples, catalog data, certificates and sepi forms and other submittal data as required by the Contract Documents and Paragraph 21 of this Subcontract. Subcontractor must expedite and follow up on all submittals and resubmittals to ensure approval and delivery as early as possible so there will be no delay to this Project. Field use drawings will be issued by Subcontractor promptly and in sufficient quality immediately after the return of approved submittals.

If anything occurs which may delay Subcontractor's work, Subcontractor shall notify Contractor, in writing, within twenty-four (24) hours after the occurrence of the event which may cause delay. Subcontractor's failure to so notify Barnhill will make Subcontractor liable, and Barnhill shall backcharge, for any liability Barnhill may incur as a result of Subcontractor's failure to report the delay event. Subcontractor agrees that it shall be liable for actual damages resulting from its delays.

5. **Progress Payments.** On or before each Monthly Billing Date, Subcontractor shall deliver to Contractor, on the form shown on **ATTACHMENT "E"** and supported by such data as Contractor may require, an Application for Payment showing the value of the Work installed ("Completed Work"), plus the value of the material and equipment for incorporation in the Work suitably (to the satisfaction of Contractor and Architect) stored at the Project site or other

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SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

approved location ("Stored Materials") **ATTACHMENT "F"**, if, and only if, the Contract Documents provide for payments to Contractor on that basis, as of such date. With the Applications for payment, Subcontractor shall also submit as an integral part of the Application (a) a Waiver and Release Upon Progress Payment, **ATTACHMENT "G"**, (b) materials and equipment status report updated with current information, **ATTACHMENT "H"**, (c) sales tax report for the County in which the project is located which will be supplied as **ATTACHMENT "I"**; (d) estimated percentage completion for each area, by activity, to match Subcontractor's price schedules, and (e) a lower tier subcontractor and supplier conditional release of claims, **ATTACHMENT "N"**, from all companies with a total project cost of \$10,000.00 or more.

Within 7 days after receiving a Progress Payment from Owner under the Contract for work done by Subcontractor, Contractor shall make a progress payment to Subcontractor equal to the value of the Completed Work and Stored Work as of the corresponding Monthly Billing Date, to the extent approved by Contractor and allowed and paid by Owner on account of the Work, after deducting: (a) all previous payments; (b) current retainage (meaning a reserve equal to the Retained Percentage times the allowed value of Completed Work and Stored Work, plus any extraordinary reserve provided herein); and (c) all setoffs, charges or backcharges for services, materials, equipment and other items furnished or otherwise chargeable by Contractor to Subcontractor.

Nothing contained in this Subcontract to the contrary, the Subcontractor agrees that the Contractor shall be under no obligation to pay the Subcontractor for labor or materials required under this Subcontract, and such payments shall not actually become due, until the Contractor has been paid therefore by the Owner. The provisions of this Subcontract stating the time for payment of progress and final payments and the amount thereof are subject to the condition precedent that the Contractor shall receive from the Owner progress or final payments on account of work done by the Subcontractor in at least the amounts for which the Subcontractor has made application for payment. Otherwise, the time when such payments shall actually become due to the Subcontractor shall be postponed until the Contractor has received same from the Owner. The Subcontractor contemplates, understands, and agrees that payments to him are expressly contingent upon the Contractor receiving payment from the Owner for the Subcontractor's work, and the Subcontractor expressly agrees to accept the risk of nonpayment by the Owner to the Contractor. The Subcontractor agrees that, to the fullest extent permitted by law, payment by the Owner to the Contractor for work performed by the Subcontractor shall be a condition precedent to any payment obligation of the Contractor to the Subcontractor. Subcontractor further agrees that the liability of the surety on Contractor's payment bond, if any, for payments to the Subcontractor, is subject to the same conditions precedent as are applicable to the Contractor's liability to the Subcontractor.

Contractor reserves the right to advance the date of any payment (including final payment) under this Subcontract, if, in its sole judgment, it becomes desirable to do so.

6. **Final Payment.** Final Payment consisting of the unpaid balance of the Price minus all setoffs, charges or backcharges for services, materials, equipment and other items furnished or otherwise chargeable by Contractor to Subcontractor, shall be made within 45 days after the last of the following to occur: (a) completion of the Work by Subcontractor; (b) acceptance thereof by the Architect and Owner; (c) final payment by Owner to Contractor under the Contract on account of the Work; (d) furnishing of evidence satisfactory that there are no claims, obligations, or liens outstanding or unsatisfied for labor, services, materials, equipment, taxes or other items performed, furnished or incurred in connection with the Work; (e) delivery of all guarantees, warranties, bonds, instructions manuals, performance charts, diagrams, as-built drawings and similar items required of Subcontractor or its suppliers or subcontractors; and (f) delivery of an Unconditional Final Waiver and Release, on the form **ATTACHMENT "J"**, executed by Subcontractor running to and in favor of Contractor and Owner. Subcontractor shall also submit lower tier subcontractor and supplier unconditional final release of claims, **ATTACHMENT "O"**, prepared by all companies with a total project cost of \$10,000.00 or more.

Acceptance of final payment by Subcontractor shall constitute a waiver of claims by Subcontractor and any of its subcontractors and material suppliers except those previously made in writing and identified by the payee as unsettled at the time of application for final payment.

7. **Payment Conditions.** Subcontractor will receive the payments made by Contractor and will hold the right to receive such payments as a trust fund to be applied first to the payment of laborers, suppliers, subcontractors and others responsible for the Work justifying such payments and all taxes and insurance applicable thereto; and Subcontractor will so apply the payments from Contractor.

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SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

Subcontractor shall, as often as requested by Contractor, furnish such information, evidence and substantiation as Contractor may require with respect to the extent and value of current progress and the nature and extent of all obligations incurred by Subcontractor in connection with the Work and all payments made by Subcontractor on such obligations.

If Contractor is requested by Subcontractor or its subcontractors or vendors, and Subcontractor agrees, to a joint check arrangement to pay Subcontractor's subcontractors and/or vendors, and if Contractor agrees to such arrangement, nothing herein obligating Contractor to so agree, Contractor shall be entitled, at its sole option, to deduct five per cent (5%) of the amount of each such joint check from any other sums due Subcontractor. Such deduction to be made at the time the joint check is negotiated. Further, Subcontractor agrees that it will not deposit, or otherwise negotiate, any joint checks without first obtaining the endorsement of all joint payees.

Contractor may withhold Progress Payments and/or Final Payment in whole or in part because of:

- a. defective work not remedied;
- b. third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to Contractor is provided by Subcontractor;
- c. failure of Subcontractor to make payments properly to its subcontractors or for labor, materials, or equipment;
- d. damage to Owner, another contractor or subcontractor;
- e. reasonable evidence that the Work will not be completed within the Contract time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- f. failure to carry out the Work in accordance with the Contract Documents, or this Subcontract.

No payment hereunder shall be conclusive evidence of the performance or progress of the work and no payment shall be construed to be acceptance of defective, faulty or improper work or materials.

8. **Extension of Time.** Should Subcontractor, without fault or neglect on its own part, be delayed in the commencement, prosecution, or completion of the Work by the fault or neglect of Contractor, by an act of God or any other cause beyond the control of Contractor and Subcontractor that entitles Contractor to an extension of time under the Contract Documents, determined in accordance with the Contract Documents. Subcontractor shall be entitled only to a reasonable extension of time. In no event shall Subcontractor be entitled to compensation or damages for any delay in the commencement, prosecution, or completion of the Work, except to the extent that Contractor shall receive such compensation or damages from Owner or other third party.

Notwithstanding anything to the contrary in the Contract Documents, or this Subcontract, Subcontractor shall not be entitled to an extension of time unless Subcontractor shall have delivered written notice of delay to Contractor within 24 hours after commencement of the cause of the claimed delay.

9. **Change Orders.** Owner reserved the right under the Contract Documents to require Contractor to make changes in the Project Work, including additions thereto and deletions therefrom. Without notice to any surety and without invalidating this Subcontract, Contractor may from time to time, by written order ("Change Order") to Subcontractor, make changes in the Work to the same extent and in the same manner as may be required of Contractor by Owner under the Contract Documents and Subcontractor shall thereupon perform the changed Work in accordance with the terms of the Contract Documents and this Subcontract.

Upon request of Contractor, and in time and manner sufficient to permit Contractor to comply with its obligations under the Contract Documents, Subcontractor shall submit a written proposal for any applicable Price or Time adjustment attributable to the changed Work, amply detailed, supported and conforming to the requirements of the Contract Documents.

The Price shall be adjusted by the net amount of any direct savings and direct costs (plus an allowance for overhead and profit) attributable to the Change Order, and the Time for performance of the Work shall be adjusted to the extent necessary, subject, however, in each instance to the following limitations: (a) the Price and Time adjustments hereunder shall be limited to the amount and extent of adjustments actually allowed Contractor under the Contract Documents (less, in the case of Price, any markup or other similar amount allowed by Owner for Contractor's account); (b) where the Work affected by Change Order is the subject of unit prices, under **ATTACHMENT "C"**, the Price adjustment shall be limited to the amounts obtained by applying such unit prices; and c) the amount allowable for

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

overhead and profit shall be limited to an allowance obtained by applying the Profit Percentage to the net amount of the Subcontractor's direct savings and direct costs.

As used in this Subcontract, Subcontractor's direct savings and direct costs shall mean and be limited to the actual amount of the following: materials, including sales tax and cost of delivery; cost of labor, including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; workmen's compensation insurance; bond premiums; and actual rent of, or reasonable rental value of Subcontractor owned, equipment and machinery.

If the parties are able to agree upon the amount of the Price adjustment and the extent of any Time adjustment, such adjustments shall be written in the Change Order which shall be signed on behalf of Subcontractor. If the parties are unable to agree upon such adjustments, Contractor may elect to issue the Change Order to Subcontractor, and any adjustments to Price or Time shall be determined in accordance herewith; and Subcontractor shall, nonetheless, proceed immediately with the Work required by the Change Order.

10. **Extra Work.** In addition to Change Orders issued as a result of changes ordered by Owner or Architect, Contractor, from time to time, without notice to any surety and without invalidating this Subcontract, may require by written Change Order that Subcontractor perform extra work reasonably related to the original Work hereunder. Contractor or Subcontractor may also perform extra Work (meaning work or services not required by the Subcontractor or by Change Order) pursuant to written agreements made from time to time for the benefit of the other party, or persons, or entities responsible to such other party. Such extra Work shall be invoiced weekly, in reasonable detail and amply supported, on the basis of the performing party's actual direct costs, and without overhead or profit or allowance therefore. Payment of such invoices shall be made at the time of the next ensuing progress payment or final payment hereunder.

In no event shall Subcontractor proceed with changed or extra Work without a written Change Order issued under Paragraph 9 or this Paragraph 10 and approved by Contractor's Project Manager or Superintendent; and Contractor shall not be liable for any additional costs incurred or delays encountered in the performance of such Work without such a written Change Order.

11. **Bonds.** If so indicated on Page 1 hereof, Subcontractor shall furnish, within 10 days of the date of this Subcontract, at its expense, a performance bond and a payment bond, each in an amount equal to the Price, on Contractor's standard form and with sureties satisfactory to Contractor.

12. **INSURANCE REQUIREMENTS – (Including Attachment K)**

Before commencing the Work and until the completion and final acceptance thereof by Owner, Subcontractor shall obtain and maintain, at its sole expense, at least the insurance coverages specified in Attachment K hereto which is incorporated by reference and made a part of this contract. Subcontractor shall furnish copies of such Certificates of Insurance to Contractor prior to commencement of the Work, and when requested by Contractor. The insurance required to be furnished by Subcontractor shall be obtained from a responsible company or from responsible companies.

Additional Insured:

All insurance policies obtained by Subcontractor pursuant to this Agreement, except workers' compensation, must name Contractor and any other Contractor designated party as an additional insured, and the Contractor will be expressly identified as such on each applicable Certificate of Insurance. Contractor will also be identified on each applicable Certificate of Insurance as a Certificate Holder. The additional insured endorsements must comply with Attachment K-Insurance which is incorporated by reference into this contract. Such policies shall provide primary coverage for all losses and damages covered thereby, and shall include contractual liability insurance covering the Subcontractor's obligations. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage by the Subcontractor's insurer(s), that such insurer(s) shall have no right of recovery against any additional insured thereunder.

ALL ADDITIONAL INSURED OBLIGATIONS SET FORTH ABOVE SHALL BE FOR THE FULL POLICY LIMITS AND ENFORCED TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW FOR THE BENEFIT OF THE CONTRACTOR, REGARDLESS OF THE CAUSES ALLEGED OR THE CAUSES OF THE CLAIMS.

Initials: _____

Waiver of Subrogation:

Subcontractor hereby waives all rights against Contractor, Owner, and any other Contractor designated party and their shareholders, officers, directors, employees, agents, consultants for recovery of any damages to the extent that these damages are covered by commercial general liability insurance, commercial umbrella liability insurance, business auto liability insurance, or workers' compensation and employer's liability insurance maintained per the requirements of this Agreement. To the extent that Subcontractor maintains insurance coverage for loss or damage to property, Subcontractor hereby waives subrogation of such a claim against Contractor and its agents, employees, and servants.

Workers Compensation:

Subcontractor shall maintain workers' compensation and employer's liability insurance in accordance with the laws of the state or states in which the work is performed, but with employer's liability limits of at least \$500,000.00 per accident for bodily injury by accident and at least \$500,000.00 for each employee for injury by disease.

Subcontractor's workers' compensation and employer's liability insurance shall apply to all individuals who qualify for such coverage pursuant to the language of such policies for insurance and the laws of the state or states in which the work is performed. Subcontractor further covenants and agrees that its workers' compensation and employer's liability insurance policies shall afford full and exclusive coverage to Subcontractor's officers, directors, shareholders, agents, and consultants. Subcontractor further covenants and agrees that Contractor's worker's compensation and employer's liability insurance policies shall not afford any coverage to Subcontractor's employees, officers, directors, shareholders, agents, or consultants.

Certificates of Insurance:

Current Certificates of Insurance as required by this contract, including Attachment K, are to be furnished to the Contractor on or before each renewal date. No less than 30 days written notice shall be provided to Contractor of the cancellation, material modification, or the fact that any applicable aggregate policy limits are reasonably likely to be exceeded.

13. **Indemnity.** To the full extent permitted by law, Subcontractor agrees to defend, indemnify and save harmless Contractor and Owner, and their agents, servants and employees, from and against any claim, cost, expense, or liability (including attorneys' fees), attributable to bodily injury, disease, or death, or to damage to, or destruction of, property (including a loss of use thereof), caused by, arising out of, resulting from or occurring in connection with the performance of the Work by Subcontractor, its subcontractors, or their agents, servants, or employees, whether or not caused in part by the active or passive negligence or other fault of a party indemnified hereunder, provided, however, Subcontractor's duty hereunder shall not arise if such injury, sickness, disease, death, damage, or destruction is caused by the sole negligence of a party indemnified hereunder. Subcontractor's obligation hereunder shall not be limited by the provisions of any workmen's compensation or similar act.

Should Owner or any other person assert a claim or institute a suit, action, or proceeding against Contractor involving the manner or sufficiency of the performance of the Work, Subcontractor, upon request of Contractor, shall promptly assume the defense of such claim, suit, action or proceeding, at Subcontractor's expense, and Subcontractor shall indemnify and save harmless Contractor and its agents, servants and employees, from and against any liability, loss, damage, or expense arising out of or related to such claim, suit, action, or proceeding.

14. **Assignment.** Subcontractor shall not assign this Subcontract or any monies due or to become due hereunder, or subcontract any substantial part of the Work, without the prior written consent of Contractor. Subcontractor shall not be relieved of its duties and obligations hereunder by any assignment or subcontract and shall be and remain as fully responsible and liable for the acts and omission of its assignees and subcontractors, and all persons directly or indirectly employed by them, as Subcontractor is for its own acts and omissions and those of its agents, servants and employees.

15. **Compliance.** Subcontractor shall, at its own expense, obtain all necessary licenses and permits pertaining to the Work and comply with all statutes, ordinances, rules, regulations and orders of any governmental or quasi-governmental authority having jurisdiction over the Work or the performance thereof, including, but not limited to, those relating to safety, wages, discrimination and equal employment opportunity. Subcontractor shall promptly correct any violations of such statutes, ordinances, rules, regulations and orders committed by Subcontractor, its agents, servants

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

and employees; and Subcontractor shall receive and respond to, and shall defend, indemnify and save harmless Contractor and Owner and their agents, servants and employees from and against any loss, liability or expense arising from, any such violations and any citations, assessments, fines or penalties resulting therefrom.

16. **Safety.** Subcontractor agrees that the prevention of accidents to workmen engaged upon or in the vicinity of the work is its responsibility, even if Contractor establishes a safety program for the entire Project. Subcontractor shall establish and implement safety measures, policies and standards conforming to those required or recommended by governmental and quasi-governmental authorities having jurisdiction and by Contractor and Owner, including, but not limited to, any requirements imposed by the Contract Documents. Subcontractor shall comply with the reasonable requirements of insurance companies having an interest in the Project. Subcontractor shall stop any part of the Work which Contractor deems unsafe and immediately take corrective measures satisfactory to Contractor before commencing the Work. Contractor's failure to stop Subcontractor's unsafe practices shall not relieve Subcontractor of its responsibilities therefore.

Subcontractor is responsible for the safe use, storage, and disposal, in accordance with all laws, ordinances, codes, rules and regulations, of any chemicals or other materials that Subcontractor uses in the performance of Subcontractor's Work. Subcontractor shall provide Contractor with a list of all chemicals or materials used in performance of the Work and a copy of the Material Safety Data Sheet for each chemical. All chemicals Subcontractor brings on the Project site, shall bear a label stating the identity of the chemical, any hazards associated with it, and the Subcontractor's name, the name of any of the Subcontractors' subcontractors.

This Project is a hard-hat job. All personnel are required to wear head protection. Failure to comply will be cause for termination.

A Job Safety Meeting will be held at least monthly. Subcontractor must have a qualified representative present at each meeting capable of authorizing, making decisions, and responding to safety needs. This representative shall be responsible to communicate to all Subcontractor's employees the decision, concerns, action required, and possible safety hazards addressed during this meeting.

To the fullest extent permitted by law, the Subcontractor shall indemnify and hold harmless the Owner, the Contractor, and each of their agents and employees from and against any and all OSHA violation penalties, as well as all expenses and Attorneys' fees which may arise out of or result from the imposition or proposed imposition of such penalties, arising out of or resulting from performance of the Subcontractor's work under this subcontract to the extent caused in whole or in part by negligent acts or omissions of the Subcontractor, the Subcontractor's subcontractors, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not the penalty or proposed penalty is caused in part by a party indemnified hereunder. This obligation shall not affect or limit the other rights of indemnification described in this Agreement.

Repeated safety violations after warnings by Contractor shall be grounds for termination of Subcontractor's services and/or of this Subcontract.

17. **Cleaning up.** Subcontractor shall, at its own expense: (a) keep the premises at all times free from waste materials, packaging and other debris accumulated in connection with the Work, by collecting and removing such debris from the job site on a daily basis;(b) clean-up includes all removal of debris, overspray, and rubbish from adjacent surfaces; c) at the completion of the Work in each area, sweep and otherwise make the Work and its immediate vicinity "broom-clean"; (d) at final completion of the Work remove all of its tools, equipment, scaffolds, temporary structures and surplus materials as directed by Contractor; and (e) for final inspection clean and prepare the Work for inspection by Owner.

18. **Temporary Facilities.** Temporary facilities and services shall be provided in accordance with **ATTACHMENT "L"** hereto.

19. **Quality.** Subcontractor shall provide quality materials and workmanship conforming to Contract requirements and good industry practices. Subcontractor shall provide proper facilities and opportunity at all times for the inspection of the Work by Contractor, Architect and Owner and their representatives, and shall, within 24 hours after receiving written notice from Contractor or Architect, proceed to demolish and remove promptly all portions of the Work which the Contractor or Architect shall have condemned as unsound, improper, or in any way failing to conform to the Contract Documents or this Subcontract and shall replace the same with proper and satisfactory Work and make good all work damaged or destroyed by such demolition and/or removal. Contractor's failure to discover and notify

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

Subcontractor of defective or nonconforming Work, at the time the Work or any portion thereof is performed or completed, shall not relieve Subcontractor of responsibility for replacement of the defective or nonconforming Work and all damages resulting therefrom. If the Owner elects to accept defective or nonconforming Work, Contractor may require an appropriate and equitable adjustment in the Price to the extent required of Contractor.

Subcontractor will not be allowed to make substitutions except as authorized in writing. It is understood that the procedures for substitution under the Contract Documents shall apply. It is understood that the procedures for substitutions under the Contract Documents shall apply.

All shop drawings, catalog data, certificates, and other submittal data as required by the Contract shall be specially annotated, highlighted or otherwise clearly show all exceptions to, or variances from, the Specifications or Contract Drawings. If this is not done, Subcontractor is presumed to have judged the variances to be equal and acceptable to the Contractor under the Contract Documents.

20. **Warranties.** Subcontractor warrants and guarantees the Work to the full extent provided for in the Contract Documents. Without limiting the foregoing or any other liability or obligation with respect to the Work, Subcontractor shall, at its expense and by reason of its express warranty, make good any faulty, defective, or improper parts of the Work discovered within one year from the date of final acceptance of the Project by the Architect and Owner or within any such longer period as may be provided in the Contract Documents or this Subcontract.

21. **Submittals.** Subcontractor shall immediately prepare or obtain and promptly submit to Contractor shop and erection drawings, samples, product data, catalogue cuts, laboratory and inspection reports and engineering calculations, all as may be required by the Contract Documents, or as may be necessary or appropriate to describe the details of the Work. Approval of drawings or other submittals by Contractor or Architect shall not relieve Subcontractor of its obligation to perform the Work in strict accordance with the Contract Documents or its responsibility for the proper matching of the Work to contiguous work.

22. **Performance.** The Work shall be performed and furnished under the direction and to the satisfaction of the Architect and Contractor, but Subcontractor shall not thereby be relieved of its obligation to supervise the Work, using its best skill and attention, or its obligation to perform the Work as provided for herein. Subcontractor shall be bound by the interpretation and decisions of the Architect and Owner to the same extent as Contractor may be bound thereby under the Contract Documents.

If part of Subcontractor's Work depends for proper execution or results upon construction or operations by the Owner, a separate contractor, or another subcontractor, the Subcontractor shall, prior to proceeding with that portion of the Work, promptly report to Contractor apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of Subcontractor so to report shall constitute an acknowledgment that the Owner's, separate contractors', or another subcontractor's completed or partially completed construction is fit and proper to receive Work, except as to defects not then reasonably discoverable.

Special coordination will be required on this Project due to the sequencing requirements and complexity. All work shall be executed as directed by Contractor with as little inconvenience, noise, dust and dirt as possible, and be in compliance with Local and Federal Safety and Environmental Regulations.

A weekly Progress and Coordination meeting will be held at the jobsite. Subcontractor must have a qualified representative, capable of authorizing and making decisions regarding the Subcontractor's work, attend each weekly meeting while the Superintendent has work in progress and for at least two (2) meetings prior to starting work.

Subcontractor shall provide a daily progress report, **ATTACHMENT "M"**, to Contractor's representative.

Subcontractor is responsible for the protection of completed or partially completed work of other trades during his own work. Should damage occur as a result of Subcontractor's activities, Subcontractor shall repair and/or replace at its own cost, all damaged work in a timely fashion so as not to delay the progress of a job.

The accuracy of all shop drawing dimensions shall be the responsibility of Subcontractor. Contractor shall make only a cursory review of general design during the processing of shop drawings. It will be the full responsibility of Subcontractor to insure that his completed, installed product is in conformance with the Contract Documents.

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

23. **Liens.** Subcontractor shall defend, indemnify and save harmless Contractor, Contractor's sureties and Owner from any lien or claim of lien filed or maintained by any laborer, materialman, subcontractor, or other person directly or indirectly acting for, through, or under Subcontractor, against the Project or any part thereof or any interest therein or against any monies due or to become due from Owner to Contractor or from Contractor to Subcontractor. Without limiting the foregoing, Subcontractor shall cause any such lien or claim of lien to be satisfied, removed or discharged by bond, payment, or otherwise within 10 days from the date of filing or receipt.

24. **Patents.** Subcontract shall defend, indemnify and save harmless Contractor and Owner, from and against any claim, cost, expense, or liability (including attorneys' fees) arising out of or resulting from infringement or alleged infringement of any patent rights attributable to the Work, except to the extent that Owner may have assumed responsibility therefore under the Contract Documents.

25. **Labor.** Subcontractor agrees that where its work is stopped, delayed or interfered with by strikes, slowdowns or similar interruptions or disturbances (including cases where the Subcontractor's employees are engaged in a work stoppage solely as a result of a labor dispute involving Contractor or others and not in any manner involving Subcontractor), Contractor shall have the rights and remedies provided for in Paragraph 27. Subcontractor shall maintain and exercise control over all employees engaged in the performance of the Work, and Subcontractor shall, to the extent permitted by law, remove or cause to be removed from the Project any employee whose presence is detrimental to the orderly prosecution of the Work.

26. **Damage.** Contractor shall not be liable or responsible for loss or damage to the equipment, tools, facilities, or other personal property owned, rented, or used by Subcontractor, or anyone employed by Subcontractor, in the performance of the Work. Subcontractor shall maintain such insurance and take such protective action as it deems desirable with respect to such property. Except to the extent of any proceeds received by Contractor for the benefit of Subcontractor under a policy of builders' risk or fire insurance, Contractor shall not be liable or responsible for any loss or damage to the Work, and Subcontractor shall be responsible for the correction or restoration of any such loss or damage to the Work, or to the work of Contractor, another contractor, any other subcontractor, resulting from the operations of Subcontractor, or its subcontractors, agents, servants, or employees. Subcontractor shall take reasonable precautions to protect the Work from loss or damage prior to acceptance by Owner.

27. **Default.** Should Subcontractor at any time: (a) fail to supply the labor, materials, equipment, supervision and other things required of it in sufficient quantities and of sufficient quality to perform the Work with the skill, conformity, promptness, and diligence required by the Contract Documents or this Subcontract; (b) cause stoppage, delay of, or interference with, the Project work; c) become insolvent, or (d) fail in the performance or observance of any of the covenants, conditions, or terms of the Contract Documents, as applicable, or this Subcontract, then, in any such event, each of which shall constitute a default hereunder by Subcontractor, Contractor, after giving notice of default and 48 hours within which to cure, shall have the right to exercise any one or more of the following remedies:

(i) require that Subcontractor utilize, at its own expense, overtime labor (including Saturday, Sunday and holiday work) and additional shifts as necessary to overcome the consequences of any delay attributable to Subcontractor's default.

(ii) remedy the default by whatever means Contractor may deem necessary or appropriate, including, but not limited to, correcting, furnishing, performing, or otherwise completing the Work, or any part thereof, by itself or through others (utilizing where appropriate any materials and equipment previously purchased for that purpose by Subcontractor) and deducting the cost thereof (plus an allowance for administration burden equal to 15% of such costs) from monies due, or to become due, to Subcontractor whether on this or any other Project.

(iii) after giving Subcontractor an additional 48 hours notice (at any time following the expiration of the initial 48 hours curative period) terminate either Subcontractor's services under, or this Subcontract, without thereby waiving or releasing any rights or remedies against Subcontractor or its sureties, and by itself or through others take possession of the Work, and all materials, equipment, plant, tools, scaffolds and appliances of Subcontractor relating to work, for the purposes of completing the Work and securing to Contractor the payment of its costs (plus an allowance for administrative burden equal to 15% of such costs) and other damages under the Subcontract and for the breach thereof, it being intended that Contractor shall, for the stated purposes, be the assignee of and have a security interest in the property described above to the extent located on or off the Project site (and Contractor may at any time file this Subcontract as a financing statement under applicable law); and

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SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

(iv) recover from Subcontractor all losses, damages, penalties and fines, whether actual or liquidated, direct or consequential, and all reasonable attorneys' fees suffered or incurred by Contractor by reason of, or as a result of, Subcontractor's default.

Should any termination for default under Paragraph 27 (iii) be determined to be invalid, improper or wrongful, such termination shall be deemed to have been a termination for convenience as provided in Paragraph 28 below.

After completion of the Work by the exercise of any one or more of the above remedies and acceptance of the Work by Architect and payment therefore by Owner, Contractor shall promptly pay Subcontractor any balance of the Price. If the cost of completion of the Work, plus the allowance for administrative burden, together with any other damages or losses sustained or incurred by Contractor, shall exceed the undisbursed balance of the Price, Subcontractor and its surety or sureties shall pay the difference within fifteen (15) days of documented demand from Contractor.

The foregoing remedies shall be considered separate and cumulative and shall be in addition to every other remedy given hereunder or under the Contract Documents, or now or hereafter existing at law or in equity.

Except as limited by this Subcontract, Subcontractor shall have the rights and remedies available at law or in equity for a breach of this Subcontract by Contractor. Any default by Contractor shall be deemed waived unless Subcontractor shall have given Contractor written notice thereof within 7 days after the occurrence of such default. Subcontractor shall not be entitled to stop the Work or terminate this Subcontract on account of Contractor's failure to pay an amount claimed due hereunder (including changed or extra Work) so long as Subcontractor shall not have adequately substantiated the amount due or so long as a good faith dispute exists as to the amount due. Subcontractor shall not be entitled to stop the Work on account of a default by Contractor unless such default shall have continued for more than 7 days after Contractor's receipt of Subcontractor's written notice of such default.

Subcontractor shall not be entitled to terminate this Subcontract except for a substantial and material breach by Contractor which shall have continued, uncured, for at least an additional 30 days after (1) Subcontractor shall have stopped work in accordance with the requirements hereof and (2) Contractor shall have received written notice of Subcontractor's intention to terminate this Subcontract.

28. **Disputes.** In the event of any dispute between Subcontractor and Contractor arising under or relating to this Subcontract, or the breach thereof, which involves the correlative rights and duties of Owner, the dispute shall be decided in accordance with the Contract Documents and Subcontractor, and its sureties, shall be bound to Contractor to the same extent that Contractor is bound to Owner by the terms of the Contract Documents and by any decisions or determination made under the Contract Documents by any authorized person, board, court or other tribunal. Subcontractor shall be afforded a reasonable opportunity to present information and testimony involving its rights and shall have the duty to cooperate with Contractor.

It is specifically understood and agreed between the parties that One Hundred Dollars (\$100.00) of the Subcontract Price is being paid by Contractor to Subcontractor as consideration for the discretionary arbitration provisions hereinafter agreed to by the parties. If a controversy or claim should arise between Subcontractor and Contractor under or relating to this Subcontract, or the breach thereof, which does not involve the correlative rights and duties of Owner and is not, therefore, controlled by the foregoing provision, then Contractor, in its sole discretion, may elect to submit such dispute to arbitration, in which event the dispute(s), shall be determined by arbitration, pursuant to the Uniform Arbitration Act of the State of North Carolina, before the American Arbitration Association and in accordance with the AAA's Construction Industry Arbitration Rules then in effect. The locale for all hearings shall be Tarboro, North Carolina. If the amount in dispute, including counterclaims, is less than \$50,000, one arbitrator, who shall be an attorney who is experienced in arbitration and construction law, shall be appointed pursuant to said Rules. If the amount in dispute is \$50,000 or more, three arbitrators, at least one of whom shall be an attorney, who is experienced in arbitration and construction law, shall be appointed, in the event the Contractor elects to submit the dispute to arbitration. It is agreed that the following claims shall not be arbitrable: any claim requesting punitive damages; any claim arising from the Architect's decision relating to artistic effect and any claim based upon an alleged deceptive trade practice - consumer protection act.

The parties consent to the personal jurisdiction of the General Courts of Justice of the State of North Carolina, County of Edgecombe and of the United States District Court for the Eastern District of North Carolina, and further consent that any process or notice of motion or other application to the Court or a Judge thereof may be served

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

outside the State of North Carolina by registered or certified mail or by personal service, provided a reasonable time for appearance is allowed.

During arbitration or court proceedings, the Subcontractor shall proceed diligently with the performance of the Work. Likewise, Contractor may proceed, in good faith, to remedy an alleged default by Subcontractor.

29. **Early Termination.** If Owner terminates the Contract or stops the Work for a reason other than default of Contractor, Contractor may terminate this Subcontract or stop the Work for the same reason, and Subcontractor's rights and remedies (including the basis for compensation) shall be limited to the corresponding rights and remedies available to Contractor under the Contract Documents, in no event shall Subcontractor be entitled to consequential damages or loss of profits on portions of the Work not yet performed.

30. **Notices.** All written notices provided for in this Subcontract or in the Contract Documents shall be deemed given if delivered personally to a responsible representative of the party or if sent by telegram (with written confirmation copy following) or by regular mail to the party at its address specified herein. Either party may from time to time, by written notice to the other, as herein provided, designate a different address to which to send notices.

31. **SET OFF.** If Subcontractor has performed work, is currently performing work, or hereafter begins performing any work for Contractor other than the work under this Agreement, Contractor is hereby granted the right of setoff against amounts due under this Agreement or any other agreement with Subcontractor to compensate Contractor for damages or losses that Contractor does or is likely to incur as result of Subcontractor's negligence or failure to perform its work in accordance with the applicable standards and contract requirements for said agreement. Specifically, to the extent that the price for any agreement (including but not exclusively this Agreement) between Contractor and Subcontractor is insufficient to pay Contractor's claims against Subcontractor under said agreement, Subcontractor hereby authorizes Contractor, in its sole discretion and judgment, to use the funds due Subcontractor under any agreement to pay amounts due or likely to become due Contractor in connection with Subcontractor's work under any other agreement between Subcontractor and Contractor, including but not exclusively this Agreement.

32. **Project Statement.** Subcontractor has received Exhibit P attached hereto which is the Project Statement for the project. Subcontractor shall provide a copy of this Project Statement to any subcontractor or supplier from whom subcontractor procures labor or materials for use on this project.

SUBCONTRACTOR ACKNOWLEDGES THAT IS HAS RECEIVED FULL AND SUFFICIENT CONSIDERATION FOR THIS PROVISION AND THAT THIS PROVISION IS A MATERIAL INDUCEMENT FOR THE CONTRACTOR ENTERING INTO THIS AGREEMENT.

33. **Miscellaneous.**

(a) All matters relating to the validity, performance, or interpretation of this Subcontract shall be governed by the law of the State of North Carolina.

(b) This Subcontract, including the Contract Documents and other documents incorporated herein by reference, embodies the entire agreement of the parties and supersedes all prior negotiations, proposals, agreements, purchase orders and understandings relating to the subject matter hereof.

(c) This Subcontract may not be changed and no requirement hereof may be waived except as herein provided or by a writing signed by a duly authorized officer or agent of each party.

(d) The provisions of this Subcontract and the Contract Documents are intended to supplement and complement each other. If, however, any provision of this Subcontract irreconcilably conflicts with a provision of the Contract, the provision imposing the greater duty on the Subcontractor shall govern.

(e) A waiver by Contractor of any term, condition, or requirement of this Subcontract shall be not deemed a waiver of any of the other terms, conditions, or requirements. None of the remedies provided Contractor by this Subcontract are intended to be exclusive, and Contractor expressly reserves the right to exercise any other remedy provided at law or in equity.

(f) Where the context requires, neuter terms used herein shall include the masculine and feminine, and singular terms shall include the plural, and vice versa.

Initials: _____

(g) If the Prime Contract is, or is determined to be, under seal, then the parties agree this Subcontract shall be deemed to be under seal; otherwise this Subcontract shall not be under seal.

(h) Storage of materials on site will be restricted. Material deliveries, jobsite storage, etc. must be coordinated with the Contractor's Superintendent. The Subcontractor shall be responsible for the delivery, unloading, storage, and protection of all materials and supplies used in connection with the Work covered under this Subcontract. The Subcontractor is responsible for protection of his own work and materials and is to take special care in material inventories to guard against weather damage, misplacement and theft.

(i) Contractor will be arbiter in any case where the Contract Documents are in conflict, incomplete or unclear. Contractor's decision in the matter shall be final.

(j) No broadcast radios will be allowed on the project.

SAMPLE

Initials: _____

IN WITNESS WHEREOF, the parties have duly executed this Subcontract as of the date first above written.

BARNHILL CONTRACTING COMPANY

Attest:

By: _____
Barry Harden Vice President Operations

Asst. Secy.

Date: _____

Subcontractor: _____

Attest:

By: _____

Date: _____

Subcontractor Check One:

_____ Corporation

_____ Partnership/Joint Venture

_____ Individual

Initials: _____

ATTACHMENT A – SCOPE OF WORK

Pursuant to Paragraph 1 of this Subcontract, Subcontractor shall prosecute and complete the following Work:

ACCEPTED ALTERNATES INCLUDED IN THIS SUBCONTRACT:

Initials: _____

ATTACHMENT B – CONTRACT DOCUMENTS

The Contract Documents referred to in Paragraph 1 and elsewhere in this Subcontract consist of the Prime Contract and the following:

Initials: _____

ATTACHMENT C – SUPPLEMENTAL PRICE SCHEDULE

Unit Prices - Pursuant to Paragraphs 2, 9, and 10 of this Subcontract, the following unit prices shall be used in determining the Price and any adjustments thereto, without limitation unless expressly provided herein.

Allowances - The Price specified on Page 1 of the Subcontract includes the following allowances for the parts of the Work specified below, to be furnished by Subcontractor in accordance with the Contract Documents.

Initials: _____

ATTACHMENT D – PERFORMANCE SCHEDULE

Pursuant to Paragraph 4 of this Subcontract and without limiting the provisions thereof, Subcontractor shall perform the Work and its several parts according to the following specific schedule, and as the same may be revised from time to time by Contractor.

Subcontractor understands the intense construction effort required for this project and will exercise detailed planning for procurement, delivery scheduling and supplying the various areas of construction for the project in such a manner as to not pose a hindrance to other trades or Contractor's work.

Subcontractor is responsible for fully coordinating its Work with all work shown by the Contract, i.e. Mechanical, Plumbing and Electrical Drawings.

This Subcontract includes the necessary number of trips to the jobsite to maintain the Construction Schedule.

Enclosed is a preliminary schedule for your review. Refer to Paragraph 4 in Subcontract for details.

TIME IS OF THE ESSENCE in this Subcontract. This is repeated herein for special emphasis.

Initials: _____

ATTACHMENT E – APPLICATION FOR PAYMENT

TO: BARNHILL CONTRACTING COMPANY, BUILDING DIVISION, P O BOX 1529, TARBORO, NC 27886

FROM: _____

PROJECT: _____

PAYMENT REQUEST NO.: _____ SUBCONTRACT NO.: _____

PERIOD: _____ TO _____

STATEMENT OF CONTRACT ACCOUNT:

- | | |
|---|-----------|
| 1. Original Contract Amount | _____ |
| 2. Approved Changes (Net) (Add/Deduct)
(per attached breakdown) | _____ |
| 3. Adjusted Contract Amount | _____ |
| 4. Value of Work Completed to Date:
(per attached breakdown) | _____ |
| 5. Value of Approved Change Orders Completed to Date:
(per attached breakdown) | _____ |
| 6. Materials Stored on Site:
(per attached breakdown) | _____ |
| 7. Subtotal (lines 4 + 5 + 6) | _____ |
| 8. Less Amount Retained (_____ %) | (_____) |
| 9. Subtotal Less Retainage (line 7 - 8) | _____ |
| 10. Less Total Previously Certified | (_____) |
| 11. Net Amount of this Request (line 9 - 10) | _____ |

CERTIFICATE OF SUBCONTRACTOR:

I hereby certify that the work performed and the materials supplied to date, as shown above represent the actual value of accomplishment under the terms of the Contract (and all authorized changes thereto) between the undersigned and BARNHILL CONTRACTING COMPANY relating to the above referenced project.

I also certify that all payments have been made through the period covered by previous payments received from the contractor, to (1) all my subcontractors (sub-subcontractors) and (2) for all materials and labor used in or in connection with the performance of this Contract. I further certify that I have complied with Federal, State, and local tax laws, including Social Security laws and Unemployment Compensation laws and Workmen's Compensation laws.

I further understand and agree that payments previously received or requested herein do not relieve me in any way of any responsibility for compliance with all the terms and conditions of the contract agreement with BARNHILL CONTRACTING COMPANY.

DATE: _____

SUBCONTRACTOR

Subscribed and sworn before me this _____

AUTHORIZED SIGNATURE

day of _____, 20_____.

Notary Public: _____

PRINTED NAME

My Commission Expires: _____

Printed Name: _____

TITLE

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

ATTACHMENT F – CERTIFICATE OF STORED MATERIALS

TO: BARNHILL CONTRACTING COMPANY

The below listed materials, supplies and equipment (hereinafter defined as material) are stored and can be inspected with reasonable notification.

Stored Material Item-Description	Stored Location	Quantity	Invoice Value (Invoice Copy Attached)

(Append additional sheets as needed.)

Subcontractor's material handling costs \$ _____

Total Costs (invoice value plus handling cost) \$ _____

Upon receipt of payment (payment defined as invoiced cost plus material handling cost without overhead and profit) as petitioned by the Subcontractor's Application for Payment No. _____

Item 6, dated _____, the undersigned hereby certifies the following:

1. Full, clear and unencumbered title and ownership of the material is transferred, assigned and vested to: _____
(Name of Owner)

2. The material is to be held in trust for the benefit of _____
and for the exclusive use of the _____ (Project Name)
until such time as the materials are incorporated into the work. The Subcontractor re-affirms his continued obligation to store and protect the material until completion of the work. All cost related to procuring, transporting, insuring and improving, repairing or leasing facilities for storage of the material, is the sole cost of the Subcontractor.

As evidenced and surety of this obligation and for protection of the Owner's property, the Subcontractor will provide and maintain an "All Risks" insurance policy for the invoiced value of the material. Further, the Subcontractor agrees to be responsible and accountable for any and all damage to or destruction of the material, insurance coverage notwithstanding.

3. A current Certificate of Insurance coverage is attached or presently on file with Barnhill Contracting Company.

ATTEST: (Notary Public)

SUBCONTRACTOR NAME

By: _____
Signature

Title

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT
**ATTACHMENT G – WAIVER AND RELEASE UPON PROGRESS PAYMENTS
FOR USE BY SUBCONTRACTOR**

The undersigned supplier/subcontractor/materialman/laborer ("Supplier") acknowledges that Supplier has certain lien rights which are created by statute as a result of furnishing labor, materials, or rental equipment at the site ("Premises") of the improvement ("Improvement") which is the site of the Project described below. Supplier either directly or indirectly through a subcontractor or Barnhill Contracting Company ("Contractor") has made a written application for a Progress Payment as indicated below. Supplier knowingly WAIVES and RELEASES any and all lien rights it has or may have for furnishing labor, materials, or rental equipment at the site of the Improvement as of the date of the application for the Progress Payment as indicated below.

Upon receipt of this Progress Payment by Contractor, Supplier acknowledges and agrees that Contractor has paid for all labor, materials, or rental equipment furnished by Supplier, directly or indirectly, pursuant to Supplier's contract with Contractor, or with any supplier and or subcontractor of Contractor, or with any supplier and/or subcontractor at any tier thereafter for furnishing labor, materials, or rental equipment at the Premises, which is the site of the Project described below.

For and in consideration of this Progress Payment and other valuable considerations, and for the purpose of inducing the making of this Progress Payment, Supplier hereby waives, releases, warrants and agrees, as follows:

- 1) **WAIVER and RELEASE:** Supplier hereby waives, releases and relinquishes any and all rights to any mechanics, laborers' and/or materialmen's liens (including both liens on funds and on real property), and any and all other rights (including, but not limited to, equitable liens, rights to obtain the issuance of stop notice, and rights to assert any claim with respect to any payment or surety bond) relating to the Project, or to funds paid or to be paid in connection with any work done to and/or Improvements made on or to the Premises. This WAIVER and RELEASE relates and applies only to labor, materials or rental equipment furnished to the Improvements by Supplier through the date of the application for this Progress Payment.
- 2) **WARRANTIES:** Supplier represents and warrants that:
 - a) The person executing this Waiver and Release Upon Progress Payment has the right and authority to sign and execute this document on behalf of Supplier.
 - b) Supplier has fully paid or within five (5) days of the date of this Progress Payment, shall fully pay:
 - i) all persons who have performed or furnished labor or professional design or surveying services at the site of the Improvement; and
 - ii) all persons who have furnished any materials or rental equipment, on the Premises or to the Project; and
 - iii) all taxes, licenses, fees, assessments or any other payments required to be made by Supplier to any governmental authority having jurisdiction to assess same.
 - c) Supplier has not signed or executed any security agreement or other document which affects title to any part of the Premises or to any material used in connection with Improvements to the Premises;
 - d) Supplier has not asserted and shall not assert a lien on funds or on the Premises, and
 - e) Supplier has not assigned and shall not assign to any person or entity any right or claim for payment regarding labor, materials, or rental equipment furnished on or to the Premises.
- 3) **INDEMNITY:** Supplier agrees to defend and indemnify the owner of the Premises which is the site of the Project described below ("Owner"), Contractor, and Contractor's supplier or subcontractor with whom Supplier has a contract for which this Progress Payment has been received, from and against any and all demands or claims for payment and losses (including reasonable attorney's fees) made by any person or entity who has furnished labor, materials, or rental equipment to Supplier for Improvements on the Premises, or made by any governmental authority for taxes, licenses, fees, assessments or other payments.

NOTICE: THIS IMPORTANT LEGAL DOCUMENT UNCONDITIONALLY WAIVES YOUR LIEN RIGHTS AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THESE RIGHTS. It is a crime (punishable by a fine not exceeding One Thousand and No/100 dollars (\$1,000.00) or by imprisonment not to exceed two (2) years, or by both) to make any written statement relating to sums due or claimed to be due for labor, materials, or rental equipment furnished, at the site of Improvements to the Premises which is known to be false. N.C. General Statutes' 44A-24.

Barnhill Project Number _____ Name of Owner: _____
 County/State of Project: _____ Owner Project Number: _____
 Progress Payment: _____ Amount \$ _____ Date: _____

IN TESTIMONY WHEREOF, the Supplier has caused this Waiver and Release Upon Progress payment to be executed in its name by its _____ President (or General Partner), attested by its _____ Secretary, and its corporate seal to be hereto affixed (for Corporate Suppliers), by the authority of its Board of Directors (or Partners) first duly given, this _____ day of _____, 20_____.

Subscribed and sworn before me this _____ day of _____, 20_____.

 (Corporate Name, Individual or Partnership Name) (Corp. Seal) (If Applicable)
 BY: _____
 Notary Public: _____
 My Commission Expires: _____ (Print Name and Title)
 (Notary Seal) ATTEST: _____
 (Corp. Secretary) Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

ATTACHMENT H – SUPPLIER/SUBCONTRACTOR INFORMATION SCHEDULE

Submitted by: _____
(Subcontractor Company Name)

Project Name: _____

Barnhill Project No.: _____

The following is a complete listing of the subcontractors and suppliers to be used by the Subcontractor named above as sources for furnishing and/or installing materials or equipment, the total value of which for any one such sub or supplier is expected to be \$10,000.00 or more in connection with work on the above named project:

Sub/Supplier Name and Address	Sub/Supplier Contact Person	Contact's Telephone Number	Estimated Total Dollars to be Paid	Item of Work or Material Furnished

The information shown above is complete, true and correct to the best of my knowledge and belief.

Subcontractor Signature

Printed Name

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

ATTACHMENT I – SALES TAX SUMMARY

State of North Carolina
County Sales and Use Tax Report
Summary Totals & Certification

Contractor/Subcontractor: _____

Project Name: _____ For Period Ending: _____

	Total for County of:	Total for County of:	Total for County of:	Total for County of:	Total for County of:	Total for County of:	Total for County of:	Total All Counties**	Total for State**
Contractor									
Subcontractor(s)*									
County Total									

* Attach Subcontractor(s) report(s)

** Must balance with detail sheet(s)

I certify that the above figures do not include any tax on supplies, tools, and equipment which were used to perform this contract and only include those building material supplies, fixtures and equipment which actually became part of or annexed to the building or structure. I certify that, to the best of my knowledge, the information provided here is true, correct and complete.

Subscribed and sworn before me this _____

day of _____, 20_____.

Notary Public: _____

My Commission Expires: _____

Printed Name: _____

Signature of Preparer

Printed Name of Preparer

Note: This Certified Statement May be Subject to
audit.

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT
**ATTACHMENT J – UNCONDITIONAL FINAL WAIVER AND RELEASE
FOR USE BY SUBCONTRACTOR**

The undersigned supplier/subcontractor/materialman/laborer ("Supplier") acknowledges that Supplier has certain lien rights which are created by statute as a result of furnishing labor, materials, or rental equipment at the site ("Premises") of the improvement ("Improvement") which is the site of the Project described below. Supplier either directly or indirectly through a subcontractor or Barnhill Contracting Company ("Contractor") has made a written application for Final Payment as indicated below. Supplier knowingly WAIVES and RELEASES any and all lien rights it has or may have for furnishing labor, materials, or rental equipment at the site of the Improvement.

Upon receipt of this Final Payment by Contractor, Supplier acknowledges and agrees that Contractor has paid for all labor, materials, or rental equipment furnished by Supplier, directly or indirectly, pursuant to Supplier's contract with Contractor, or with any supplier and or subcontractor of Contractor, or with any supplier and/or subcontractor at any tier thereafter for furnishing labor, materials, or rental equipment at the Premises, which is the site of the Project described below.

For and in consideration of this Final Payment and other valuable considerations, and for the purpose of inducing the making of this Final Payment, Supplier hereby waives, releases, warrants and agrees, as follows:

- 1) **WAIVER and RELEASE:** Supplier hereby waives, releases and relinquishes any and all rights to any mechanics, laborers' and/or materialmen's liens (including both liens on funds and on real property), and any and all other rights (including, but not limited to, equitable liens, rights to obtain the issuance of stop notice, and rights to assert any claim with respect to any payment or surety bond) relating to the Project, or to funds paid or to be paid in connection with any work done to and/or Improvements made on or to the Premises.
- 2) **WARRANTIES:** Supplier represents and warrants that:
 - a) The person executing this Unconditional Final Waiver and Release has the right and authority to sign and execute this document on behalf of Supplier.
 - b) Supplier has fully paid:
 - i) all persons who have performed or furnished labor or professional design or surveying services at the site of the Improvement; and
 - ii) all persons who have furnished any materials or rental equipment, on the Premises or to the Project; and
 - iii) all taxes, licenses, fees, assessments or any other payments required to be made by Supplier to any governmental authority having jurisdiction to assess same.
 - c) Supplier has not signed or executed any security agreement or other document which affects title to any part of the Premises or to any material used in connection with Improvements to the Premises;
 - d) Supplier has not asserted and shall not assert a lien on funds or on the Premises, and
 - e) Supplier has not assigned and shall not assign to any person or entity any right or claim for payment regarding labor, materials, or rental equipment furnished on or to the Premises.
- 3) **INDEMNITY:** Supplier agrees to defend and indemnify the owner of the Premises which is the site of the Project described below ("Owner"), Contractor, and Contractor's supplier or subcontractor with whom Supplier has a contract for which this Final Payment has been received, from and against any and all demands or claims for payment and losses (including reasonable attorney's fees) made by any person or entity who has furnished labor, materials, or rental equipment to Supplier for Improvements on the Premises, or made by any governmental authority for taxes, licenses, fees, assessments or other payments.

NOTICE: THIS IMPORTANT LEGAL DOCUMENT UNCONDITIONALLY WAIVES YOUR LIEN RIGHTS AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THESE RIGHTS. It is a crime (punishable by a fine not exceeding One Thousand and No/100 dollars (\$1,000.00) or by imprisonment not to exceed two (2) years, or by both) to make any written statement relating to sums due or claimed to be due for labor, materials, or rental equipment furnished, at the site of Improvements to the Premises which is known to be false. N.C. General Statutes' 44A-24.

Barnhill Project Number _____ Name of Owner: _____
 County/State of Project: _____ Owner Project Number: _____
 Final Payment: _____ Amount \$ _____ Date: _____

IN TESTIMONY WHEREOF, the Supplier has caused this Waiver and Release Upon Progress payment to be executed in its name by its _____ President (or General Partner), attested by its _____ Secretary, and its corporate seal to be hereto affixed (for Corporate Suppliers), by the authority of its Board of Directors (or Partners) first duly given, this _____ day of _____, 20_____.

Subscribed and sworn before me this _____
 day of _____, 20_____. (Corporate Name, Individual or Partnership Name) (Corp. Seal) (If Applicable)

Notary Public: _____ BY: _____

My Commission Expires: _____ (Print Name and Title)

(Notary Seal) ATTEST: _____ (Corp. Secretary)

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

ATTACHMENT K – INSURANCE

Page K1

Pursuant to the Insurance requirements outlined in this contract, the Subcontractor shall acquire and maintain at least the following insurance coverage in addition to any other coverage or any greater limits required by the contract documents both during the entire phase of construction as well as for other time durations where specifically noted.

Type of Insurance	Required Coverage/Minimum Limits	Policy / Coverage Provisions Required
Workers' Compensation & Employer Liability	<ol style="list-style-type: none"> 1. Statutory Coverage in accordance with the laws of the state(s) in which the work will be performed. 2. Employers Liability – Minimum limits of \$500,000.00 Per Occurrence for Bodily Injury by Accident as well as Injury by Disease. 	<ul style="list-style-type: none"> ➤ Coverage will cover all of Subcontractor's Employees, officers, directors, shareholders, agents, owners, volunteers and consultants. ➤ Policy will contain a "Waiver of Subrogation" that runs in favor of the Contractor as outlined in the terms and conditions of the contract. Policy should contain ISO "Waiver of Subrogation: Endorsement #WC000010 (04/04) or Equivalent Form or language. ➤ Where applicable, USL&H Endorsement will be attached to the policy. ➤ Where applicable, the Maritime Coverage Endorsement will be attached to the policy.
Commercial Automobile Liability Coverage	<ol style="list-style-type: none"> 1. Combined Single limit of \$1,000,000.00 for Bodily Injury and Property Damage per each Occurrence. 	<ul style="list-style-type: none"> ➤ Policy will provide Liability coverage for all owned, non-owned, and hired vehicles. ➤ Contractor, and any other designated parties named by the Contractor, will be listed as an "Additional Insured" on the policy for the duration of the Subcontractor's work. ➤ The policy will provide a "Waiver of Subrogation" Endorsement. ISO Form # CA0444 (03/08) is recommended or use of equivalent form or language. Such Waiver will be in favor of the Contractor and any other parties designated by the Contractor.
Property / Inland Marine Coverage	<ol style="list-style-type: none"> 1. Subcontractor will maintain their own Property and/or Inland Marine insurance to cover their tools, equipment, materials, etc. against loss. 	<ul style="list-style-type: none"> ➤ All such policies shall contain the appropriate "Waiver of Subrogation" endorsement that runs in the favor of the Contractor and any other parties designated by the Contractor to be included in such endorsements. ➤ Contractor will advise Subcontractor as to whether or not a "Builders Risk" policy has been obtained by the Contractor or Owner that includes the Subcontractor as a "Scheduled Named Insured".
Commercial General Liability Coverage	<ol style="list-style-type: none"> 1. \$1,000,000.00 Per Occurrence for Bodily Injury and Property Damage. 2. \$2,000,000.00 "Per Project / Per Location Aggregate specific to the job location noted in this contract (ISO Form CG2503 (03-97) or a manuscript endorsement using similar language and equivalent coverage, is to be added to the policy to satisfy this requirement) 	<ul style="list-style-type: none"> ➤ Coverage to be written on CGL ISO Form CG0001 (10-01) Occurrence Based Policy form to provide liability arising from the premises, operations, independent contractors, products & completed operations, personal injury & advertising injury as well as exposure to explosion, collapse and underground hazards (XCU). ➤ Contractor, Owner and all other Contractor designated parties will be named as "Additional Insureds" on the policy using a combination of ISO Form CG2033 as well as CG2037 or any manuscript forms containing similar wording and equivalent coverage for ongoing operations as well as Products and Completed Operations. The endorsements will also reflect that such coverage of the Subcontractor will apply on a "primary and non-contributing basis" before any other insurance, including self-insurance or deductibles, is considered. ➤ Subcontractor will maintain the CGL Policy and denoted coverage form and endorsements for a period of three (3) years following the completion of the project. All terms and conditions outlined in this section must be included in the continuation of coverage for the period noted.
Commercial Umbrella / Excess Coverage	<ol style="list-style-type: none"> 1. Minimum of \$1,000,000.00 Per Occurrence/Aggregate Limits. 	<ul style="list-style-type: none"> ➤ The policy must be endorsed to "be as broad as the primary policies" in regard to coverage provisions. ➤ Additional Insured's required on the Auto and General Liability Policies must also be included on the Umbrella / Excess Policy. ➤ The umbrella policy for such additional insured(s) shall apply as primary coverage before any other insurance, including self-insurance or deductibles, maintained by, or provided to, the additional insured (s) is considered.

Initials: _____

SECTION SEVEN – BID FORM & SUBCONTRACT AGREEMENT

ATTACHMENT K – INSURANCE

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ACORD® CERTIFICATE OF LIABILITY INSURANCE DATE (MM/DD/YYYY) _____

PRODUCER Insurance Company Name Address City, State, ZIP		THIS CERTIFICATION IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
INSURED Contractor Name Address City, State, ZIP		INSURERS AFFORDING COVERAGE INSURER A: Insurance Company Name INSURER B: Insurance Company Name INSURER C: INSURER D: INSURER E:	NAIC #

COVERAGES

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

INSR ADD'L TR/INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual <input checked="" type="checkbox"/> XCU, Indp Contrs GEN'L AGGREGATE LIMIT APPLIES PER: POLICY <input checked="" type="checkbox"/> PRD-JECT <input checked="" type="checkbox"/> LOC	GL123456	07/01/2009	07/01/2010	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	BA123456	07/01/2009	07/01/2010	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
	EXCESS / UMBRELLA LIABILITY <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$ 10,000	UM123456	07/01/2009	07/01/2010	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (Mandatory In NH) If yes, describe under SPECIAL PROVISIONS below OTHER	WC123456	07/01/2009	07/01/2010	<input checked="" type="checkbox"/> WET/STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

BCC Job # _____ Name of Project: _____
 Certificate Holder, Owner, and any other parties required by contract are Additional Insured under Commercial General Liability (per endrnts CG 20 33 and CG 20 37 or equivalent form), Auto Liability, and Umbrella Liability regarding captioned project. Waiver of Subrogation applies in favor of Certificate Holder, Owner, and any other parties required by contract on all policies. Coverage on General Liability and Umbrella Liability is primary and non-contributory. Coverages afforded by the above described policies will not be cancelled without 30 days prior written notice to the certificate holder.

CERTIFICATE HOLDER Barnhill Contracting Company P O Box 1529 Tarboro, NC 27886	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE _____
--	---

ACORD 25 (2009/01)

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Initials: _____

ATTACHMENT K – INSURANCE

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IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

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

DISCLAIMER

This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

ACORD 25 (2009/01)

Initials: _____

ATTACHMENT L – TEMPORARY FACILITIES

The temporary facilities furnished by Contractor shall be without charge to Subcontractor, except as otherwise indicated.

In connection with its furnishing of the temporary facilities indicated, Contractor shall not be liable for conditions beyond the control of Contractor which may interrupt, delay or otherwise interfere with the availability of such facilities to Subcontractor. Unless otherwise expressly indicated, the temporary facilities furnished by Contractor shall not be for the exclusive use of Subcontractor, but shall be shared by others performing work on the Project. Contractor therefore reserves the exclusive right to schedule the use of any facilities in accordance with its determination as to the needs of the Project, and shall incur no liability as a result thereof.

If either party from time to time furnishes the other a crane, hoisting equipment, or other machinery or equipment, with or without an operator, for such party's exclusive use, then the using party shall at all times furnish adequate professional certified and competent supervision and direction therefore and shall be fully liable and responsible for safe and proper care, use and custody of such machinery or equipment.

1. a. Temporary lighting for the building interior shall be provided by the Electrical Subcontractor and shall comply with OSHA requirements at no less than one light per room, and one light per stair landing. The Electrical Subcontractor shall maintain temporary lighting during construction, including furnishing and installation of all bulbs required. Should any Subcontractor require lighting in excess of this amount for the performance of his own work, additional lighting shall be each Subcontractor's responsibility.
- b. All temporary power and lighting installation by the Electrical Subcontractor shall be installed and maintained in a neat and orderly manner and during construction shall give continuous service and provide safe working conditions.
- c. All routing of temporary power and lighting shall be subject to approval by the Contractor's Project Superintendent, in conjunction with OSHA regulations so as not to interfere with the Work.
- d. It is Contractor's intent that the temporary electric service shall remain in service, until such time as the permanent electric service is certified ready for use by the Power Company and/or completion of this Project. However, should a Subcontractor require the use of permanent power prior to Project completion, a written request shall be delivered to Contractor sixty (60) days in advance indicating conditions requiring such usage.
- e. The Electrical Subcontractor shall provide 110 volts temporary power for the building and trailer compound area. The Electrical Subcontractor shall provide adequate 20 amp/110 volt duplex outlets on each floor such that no extension cord exceeds 100 feet in length. All transformers, disconnects, poles, conduits, wiring, breakers, fuses and switches, and flood lighting adequate for night work mounted on skids shall be provided by the Electrical Subcontractor. The Electrical Subcontractor shall provide appropriate enclosures for environment in which used, in compliance with N.E.C., N.E.M.A. and local standards. Each Subcontractor shall provide their own extension cords from these outlets. Electrical Subcontractor shall also provide power for personnel hoists and tower cranes.
- f. Utility current usage costs for temporary power and lighting shall be paid by The Contractor. However, the Electrical Subcontractor shall pay for all costs of establishment of temporary electrical service.
2. a. The Contractor shall provide safety rails as required to maintain OSHA approved safety requirements. Safety rails required solely for Subcontractor's work shall be provided by Subcontractor at its cost. Each Subcontractor shall be responsible for maintenance and replacement of safety rails that are removed or damaged in connection with its own work and shall be responsible for safety regulation violations created by such removal or damage. No handrails shall be removed without Contractor's Project Superintendent's permission. Failure of Subcontractor to maintain and replace the safety rails or post which they have removed shall be grounds for termination and/or expulsion immediate from the jobsite at the discretion and direction of Contractor's Project Superintendent. Further, Subcontractor shall be responsible for all costs incurred by Contractor to replace said safety railing.

Initials: _____

ATTACHMENT L – TEMPORARY FACILITIES

Subcontractor hereby waives any notification requirements.

- b. Unless otherwise noted in the Scope of Work, Attachment "A", each Subcontractor shall provide all scaffolding and/or hoisting that is required for the performance of his own work. Swinging stages shall be protected, so as not to damage exterior finishes, windows, and roof areas.
 - c. Should the safety railing not be installed in an area where this Subcontractor is currently working, it shall be this Subcontractor's responsibility to insure that his workmen are properly tied off and otherwise adequately protected.
3. All hoisting and/or scaffolding required for work under this Subcontract is the responsibility of the Subcontractor.
 4.
 - a. Specific reference for emphasis is made to Paragraph 17 of this Subcontract regarding the Subcontractor's responsibility for cleaning up. These clean-up procedures will be strictly enforced.
 - b. Contractor will provide a trash dumpster on the jobsite for the use of all Subcontractors to aid in the removal of trash and debris.
 5.
 - a. Coordination of all on-site and off-site and other construction parking areas shall be allocated to Subcontractors' employees and suppliers by Contractor's Project Superintendent. All off-site parking shall be provided to this Subcontractors' employees, its subcontractors and material suppliers by each Subcontractor, inclusive of security and/or protection. Violators of any restrictions on parking shall be dismissed from the Project.
 - b. Subcontractor shall be responsible for the delivery, unloading, storage, and protection of all materials and supplies used in connection with the Work covered under this Subcontract. Storage of materials on site will be restricted. Material deliveries, jobsite storage, etc. must be coordinated with Contractor's Superintendent.
 6. Any Subcontractor requiring a telephone for its own field office shall first coordinate his request with Contractor's Project Superintendent. All cost, including installation of the temporary telephone service, and removal shall be paid by Subcontractor. No temporary telephones shall be placed in the new building areas, and all installations shall be made so as not to interfere with traffic, work areas, cranes, material handling equipment, or work of other Subcontractors.
 7. Break or lunch trucks are excluded from the construction site unless authorized by Contractor's Project Superintendent.
 8. A totally fenced job site shall be arranged at the discretion of Contractor's Project Superintendent. Floodlights shall be provided on the site by the Electrical Subcontractor, at his expense.
 9.
 - a. Temporary water service, including any permits, fees or connection costs, shall be provided to the building by the Site Utilities Subcontractor. The Plumbing Subcontractor shall provide one (1) hose bib per floor consisting of two spigots per location and two (2) maintenance and removal shall be provided by the Plumbing Subcontractor through the building construction period.
 - b. Plumbing Subcontractor shall determine the best location for the source of water, and coordinate with Sitework Subcontractor and Contractor prior to installation. Installation of riser and branch piping shall be coordinated and approved by Contractor's Project Superintendent, so as not to interfere with the Scope of Work of other subcontractors.
 - c. Contractor shall pay for costs of temporary water usage.

Initials: _____

ATTACHMENT L – TEMPORARY FACILITIES

- d. Plumbing Subcontractor shall provide Contractor's job trailers with temporary water hookup to sinks and toilets. Waste piping and vents shall be provided by the Plumbing subcontractor. However, the waste holding tank and disposal fees shall be paid by Contractor.
 - e. Contractor shall provide all Subcontractors adequate temporary portable sanitary facilities for the duration of the Project. Use of the permanent building water closets is strictly prohibited. Anyone using the permanent water closets shall be expelled from the Project, and the Subcontractors responsible for that person shall clean up the area at his expense.
10. a. Each individual Subcontractor shall be required to furnish and maintain fire extinguishers for all their equipment, as required by the latest Federal, State and Local regulations. All Subcontractors involved in burning, welding, or cutting operations shall furnish their own adequate fire extinguishers (tested and full) or protective enclosures.
- b. During roofing and upon completion of roofing operations, Contractor shall provide a lock on the roof hatches and doors leading onto the roof areas. Only authorized Subcontractor's workmen shall be allowed onto the roof. Contractor shall implement a sign-in and-out log for authorized employees who have signed for keys to the locks. Responsibility for roof damages will be borne by those trades who checked out keys. All keys are to be returned to Contractor's Project Superintendent on a daily basis. Similar programs shall be instituted for electrical closets, elevator room and penthouse areas.
- c. All Subcontractors are required to protect and have respect for all adjacent property owners' fences, entrances, curbs, and green areas. Responsibility and cost of restoration due to Subcontractor abuse shall be borne by the responsible Subcontractor. The health, welfare, and safety of all persons working on the Project and of adjacent property owners is everyone's responsibility and shall be treated with the utmost consideration. Violators shall be released from the Project at Contractor's Project Superintendent's discretion.
11. Subcontractor will be responsible for supplying his own ice, water, cups, dispensers, etc., for all of Subcontractor's employees for the duration of its work on the Project.
12. Safety Netting - Contractor will assure proper installation of safety nets in order to protect workers, pedestrians, on site and adjacent to property.
13. Cold weather protection - Contractor will provide adequate weather protection and heat in order to maintain a satisfactory work environment. Subcontractor's individual needs will be dealt with on a one-to-one basis and unless otherwise noted, is the responsibility of Subcontractor.
14. OPEN FIRES ON JOBSITE ARE FORBIDDEN.

Initials: _____

Attachment M

Sheet ____ of ____

**BARNHILL CONTRACTING COMPANY
Subcontractor Daily Progress Report**

Project: _____ Job #: _____ Date: _____ Day: _____

A. Subcontractor: _____ Number of Workers on Site: _____

1. Company Owned Equipment on Site: _____

_____2. Rental Equipment on Site: _____

B. Second Tier Subcontractor: _____ Number of Workers on Site: _____

1. Company Owned Equipment on Site: _____

_____2. Rental Equipment on Site: _____

_____Summary of Work Performed: _____

Subcontractor Signature_____
BCC Superintendent SignatureInitials: _____

Attachment N
Barnhill Contracting Company
Lower Tier Subcontractor/Supplier Conditional Release of Claim

TO: Barnhill Contracting Company
FROM: _____
(Lower Tier Subcontractor or Supplier)
PROJECT: _____
OWNER: _____
LOCATION: _____

The undersigned being duly sworn certifies that he/she is the _____ (Title) of _____ (Lower tier Subcontractor/Supplier), hereinafter referred to as the "Company", a party to a contract with _____ (First tier contracted with Barnhill Contracting) on the above named project.

The undersigned makes this affidavit well knowing that Barnhill Contracting Company relies upon the truth of this affidavit in making payment. Further, the undersigned makes this affidavit and certificate to induce Barnhill Contracting to make payment for work performed and/or invoiced on this project for the period through _____ (Date) where the amount of \$ _____ is owed, and that upon the condition of receipt of said payment, the company fully releases all claims and waives all liens against the owner, its premises and property, Barnhill Contracting Company and its surety, if any.

Previous payment(s) for work performed and/or supplied on this project have been received by the undersigned from the beginning of the work through _____ (Date) in the amount of \$ _____. Total contract and/or purchase order commitments the company is obligated to perform on this project, both paid and unpaid, are the total sum of \$ _____.

I do hereby certify that all persons, firms or corporations, without limitation, who have performed work, rendered services, provided labor, materials, equipment, supplies or any other items used by the company in connection with the project have been paid in full for same up to the current period of _____ (Date) and that other than those exceptions listed, there is no entitlement by the company's employees, subcontractors, material suppliers, or service providers to a lien against the owner, its premises or property, or claim against Barnhill Contracting Company or any funds owed to Barnhill Contracting Company on account of the project.

I further certify that all of the foregoing work has been properly provided, and if applicable, installed in accordance with the contract documents governing the project, and in accordance with all authorities having jurisdiction over said project.

I further certify that all workers compensation, social security, unemployment insurance and other insurance, and all federal, state and local taxes or fees have been paid in full to date, and that a proper reserve has been set up for those taxes or premiums which have been incurred but are not yet due.

I further certify that the company is complying with all applicable federal, state and local laws with respect to the requirements of this project.

In full agreement conditioned only by the above, I affix my signature this ____ day of _____, 20__.

By: _____ (Signature, title)

Printed name: _____

I, _____, a notary public for _____ county, _____, do hereby certify that _____ personally appeared before me and acknowledged the due execution of the foregoing instrument. Witness my hand and official seal on this ____ day of _____, 20__.

_____ (Seal) _____ (Printed name)

My commission expires on _____.

Initials: _____

Attachment O
Barnhill Contracting Company
Lower Tier Subcontractor/Supplier Unconditional Final Release of Claim

TO: Barnhill Contracting Company
FROM: _____
(Lower Tier Subcontractor or Supplier)
PROJECT: _____
OWNER: _____
LOCATION: _____

The undersigned being duly sworn certifies that he/she is the _____ (Title) of _____ (Lower tier Subcontractor/Supplier), hereinafter referred to as the "Company", a party to a contract with _____ (First tier contracted with Barnhill Contracting) on the above named project.

The undersigned makes this affidavit well knowing that Barnhill Contracting Company relies upon the truth of this affidavit in making payment. Further, the undersigned makes this affidavit and certificate to induce Barnhill Contracting to make final payment for work performed and/or invoiced on this project for the period through _____ (Date) where the amount of \$ _____ is owed, and that upon the condition of receipt of said payment, the company fully and unconditionally releases all claims and waives all liens against the owner, its premises and property, Barnhill Contracting Company and its surety, if any.

Previous payment(s) for work performed and/or supplied on this project have been received by the undersigned from the beginning of the work through _____ (Date) in the amount of \$ _____. Total contract and/or purchase order commitments the company is obligated to perform on this project, both paid and unpaid, are the total sum of \$ _____.

I do hereby certify that all persons, firms or corporations, without limitation, who have performed work, rendered services, provided labor, materials, equipment, supplies or any other items used by the company in connection with the project have been paid in full for same up to the current period of _____ (Date) and that other than those exceptions listed, there is no entitlement by the company's employees, subcontractors, material suppliers, or service providers to a lien against the owner, its premises or property, or claim against Barnhill Contracting Company or any funds owed to Barnhill Contracting Company on account of the project.

I further certify that all of the foregoing work has been properly provided, and if applicable, installed in accordance with the contract documents governing the project, and in accordance with all authorities having jurisdiction over said project.

I further certify that all workers compensation, social security, unemployment insurance and other insurance, and all federal, state and local taxes or fees have been paid in full to date; and that a proper reserve has been set up for those taxes or premiums which have been incurred but are not yet due.

I further certify that the company is complying with all applicable federal, state and local laws with respect to the requirements of this project.

In full agreement conditioned only by the above, I affix my signature this ____ day of _____, 20__.

By: _____ (Signature, title)

Printed name: _____

I, _____, a notary public for _____ county, _____, do hereby

certify that _____ personally appeared before me and acknowledged the due execution of the

foregoing instrument. Witness my hand and official seal on this ____ day of _____, 20__.

_____ (Seal)

_____ (Printed name)

My commission expires on _____.

Initials: _____

Attachment P
Contractor's Project Statement

Pursuant to N.C. Gen. Stat. 44A-27(f) (eff. 1/1/13), the contractor shall provide to each subcontractor that it engages to perform labor or furnish material in the performance of the construction contract all the following information:

- 1) The name of the project:

- 2) The physical address of the project:

- 3) The name of the contracting body:

- 4) The name of the contractor:
Barnhill Contracting Company
- 5) The name, phone number, and mailing address of an agent authorized by the contractor to accept service for the request for payment bond, the notice of public subcontract, and the notice of claim on payment bond referenced in N.C. Gen. Stat. 44A-27(b):

Barry Harden
Barnhill Contracting Company
P.O. Box 31765
Raleigh North Carolina 27622
919-785-9181
bharden@barnhillcontracting.com
- 6) The name and address of the principal place of business of the surety issuing the payment bond required by G.S. 44A-26(a) for the construction contract:

Travelers Casualty and Surety Company of America
Bond and Financial Products Construction Services
1 Tower Square, 2S2B
Hartford, Connecticut 06183

Each subcontractor shall provide to each subcontractor or supplier with which it contracts to perform labor or furnish material in the performance of the construction contract a copy the Contractor's Project Statement.

Initials: _____



ACADEMIC COMPLEX RENOVATION



Pre-bid Meeting: September 20, 2016



Project Team



Chad Webb - *Project Executive*

Danny Staton - *Preconstruction*

Kevin Ruff - *Project Superintendent*

John Smith - *Sr. Project Manager*

Jordan Schwartz - *Project Engineer*

Reiland Funderburk - *Project Manager*



Philip Jones - *Vice Chancellor*

John Fessler – *Director of Capital Projects*

Dorothy Vick - *HUB Coordinator*

Jeanine Bachtel - *A.D. of Capital Design*

Brian Kugler – *Senior Project Manager*

Jennifer Price - *Construction Manager*





WOOLPERT

Project Architect – David Welling

11301 Carmel Commons Blvd #300
Charlotte, NC 28226



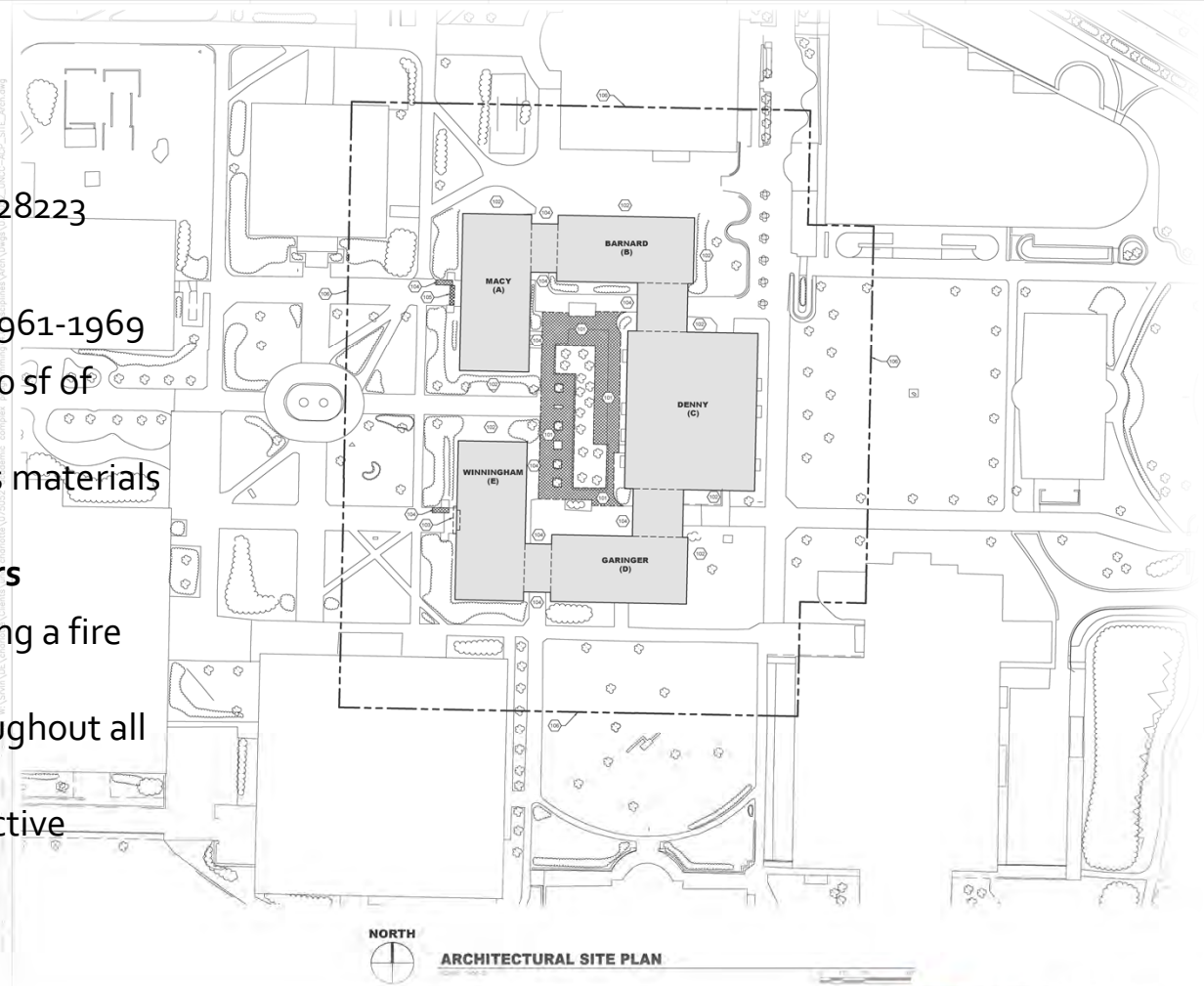
Vice President – Ronald Almond

1927 South Tryon Street Suite 300
Charlotte, NC 28203



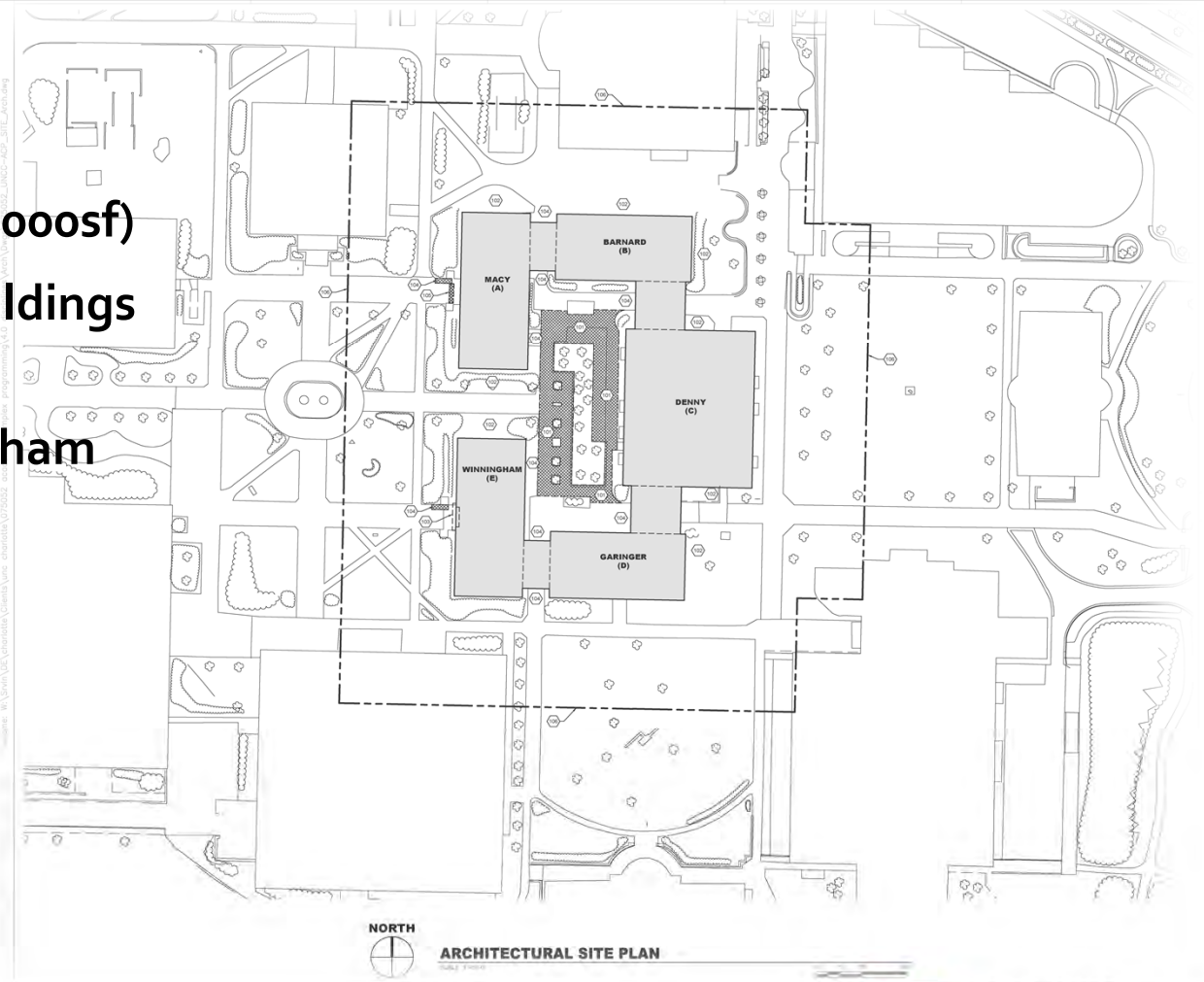
Project Information

- 9201 University City Blvd, Charlotte, NC 28223
- Start Date – **December 2016**
- **5** two-story buildings, first constructed 1961-1969
- The renovation of approximately 106,000 sf of existing space
- Demolition and abatement of hazardous materials (asbestos & lead paint)
- Three phases of construction over **2 years**
- New and upgraded MEP systems including a fire protection system.
- New finishes and exterior windows throughout all 5 buildings.
- Adjacent buildings will be occupied on active campus



Project Information

- Phase 1 - Denny Building (34,000sf)
- Phase 2 - Macy & Barnard Buildings (18,000sf each)
- Phase 3 - Garinger & Winningham Buildings (18,000sf each)



Project Goals

- Safe Site/Safe Workplace
- 25% MWBE Participation
- Meet Schedule Deadlines
- Deliver highest quality product
- Teamwork - Engage each other for coordination
- Communication
- Respect students, faculty, staff and project neighbors
- Resolve disputes at a field level
- Minimize Change Orders

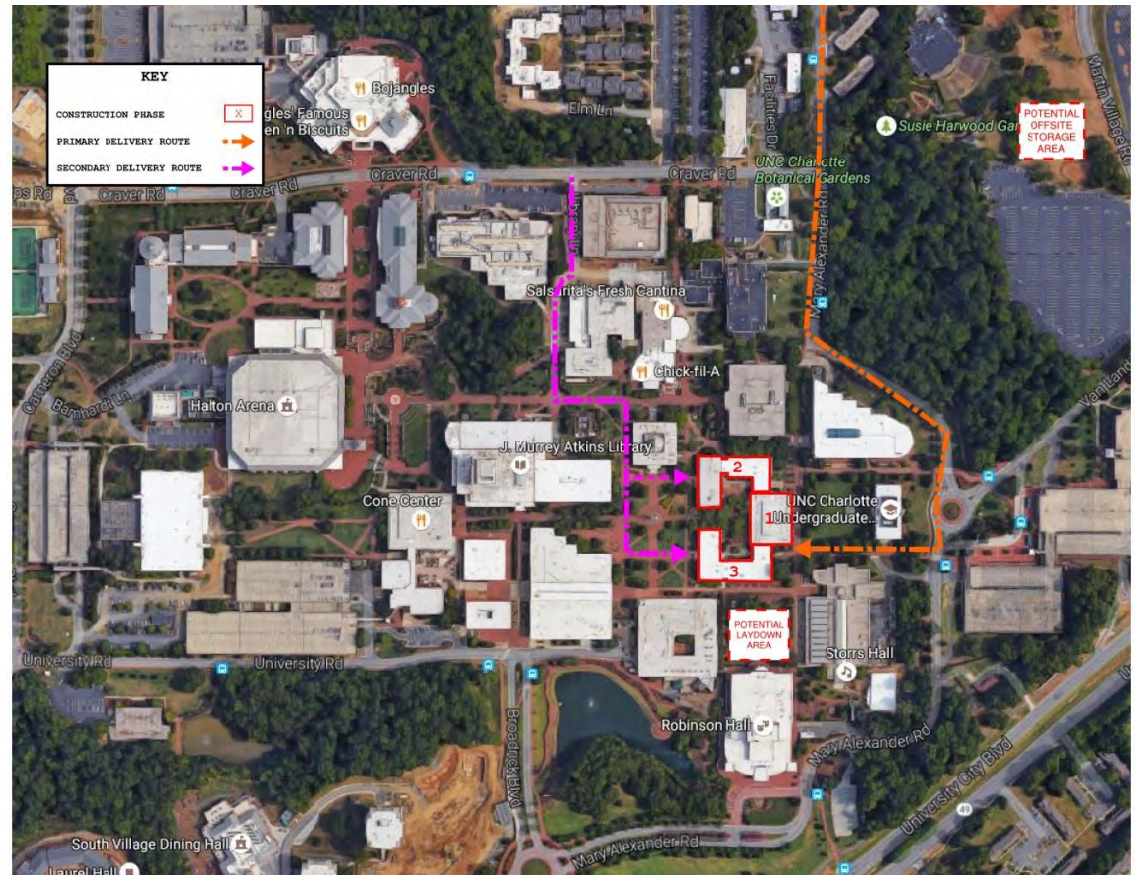


Key Dates

- **Last day for all questions** 10/4/16
- **Last day to notify MWBE firms** **10/8/16**
- **Bid Day** 10/18/16 @ 2:30 PM
- **Scope Review Meetings** 10/20/16 – 10/28/16
- **Start Construction** 12/19/16
- **Phase 01** 12/19/16 – 07/17
- **Phase 02** 8/23/17 – 04/18
- **Phase 03** 6/11/18 – 12/14/18

Logistics/Work Rules

- Phase 01 Work Hours: 7 AM to 5 PM Monday through Saturday.
- Phase 02-03 Work Hours: 7 AM to 5 PM Monday through Friday
- Night and weekend work required for portions of work. See bid package scope of work for requirements.
- Deliveries times for Phases are limited – UNC Charlotte and Barnhill to define.
- Project safety orientations & ID cards provided by Barnhill
- Weekly meeting Attendance
- Daily Field Reporting
- Daily Cleanup & Housekeeping
- Protection of In-Place Work



Logistics/Work Rules (Cont.)

- Parking is NOT available onsite or on Campus.
- Parking is available in the Regal Cinema lot located at: 11240 N Tryon St, Charlotte, NC 28262
- **Each Contractor is responsible for:**
 - Coordination for Parking
 - Coordination for offsite Storage of Materials
 - Receiving, Unloading, and Hoisting of Materials
 - Housekeeping, cleaning, and maintaining the laydown, and parking areas.

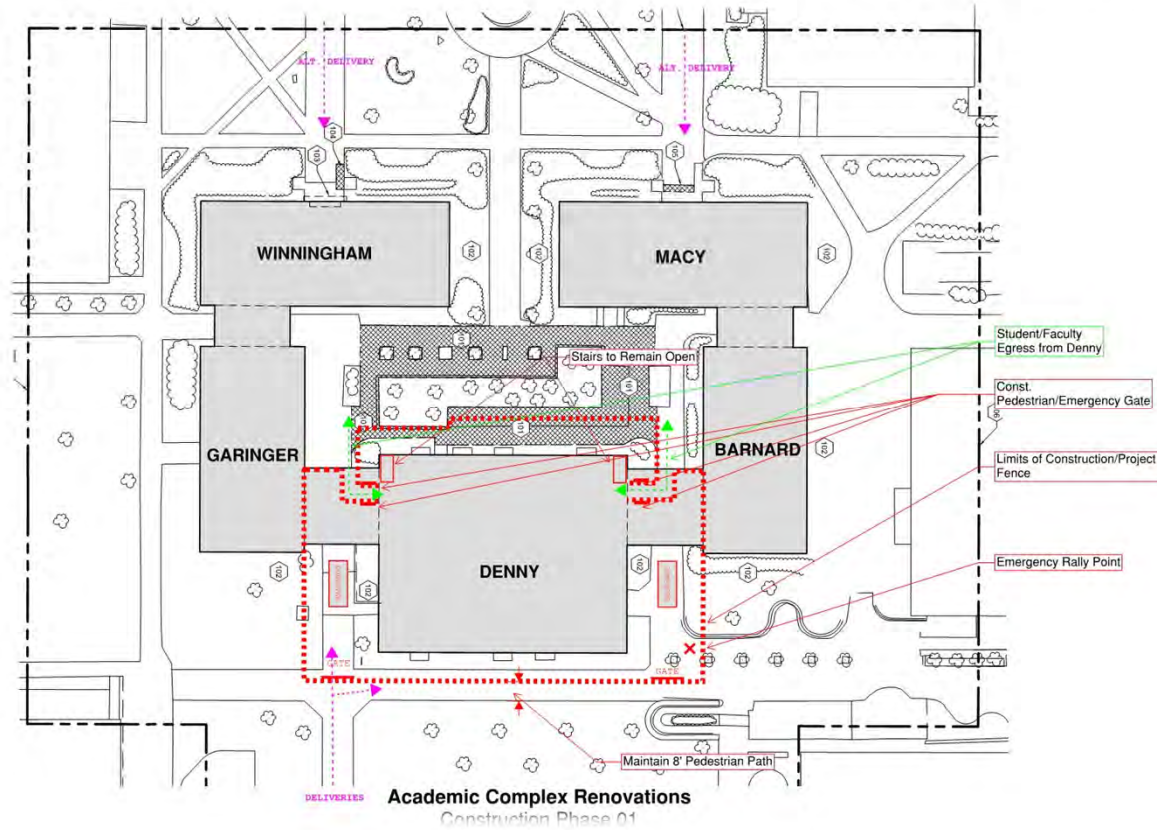
Although both parcels appear to belong to Regal Cinema, only the property outlined in green belongs to Regal. So please only park in the area outlined in green.

You are allowed to park anywhere except inside the red lines, but as a courtesy please do your best to park far away from the Cinema door.

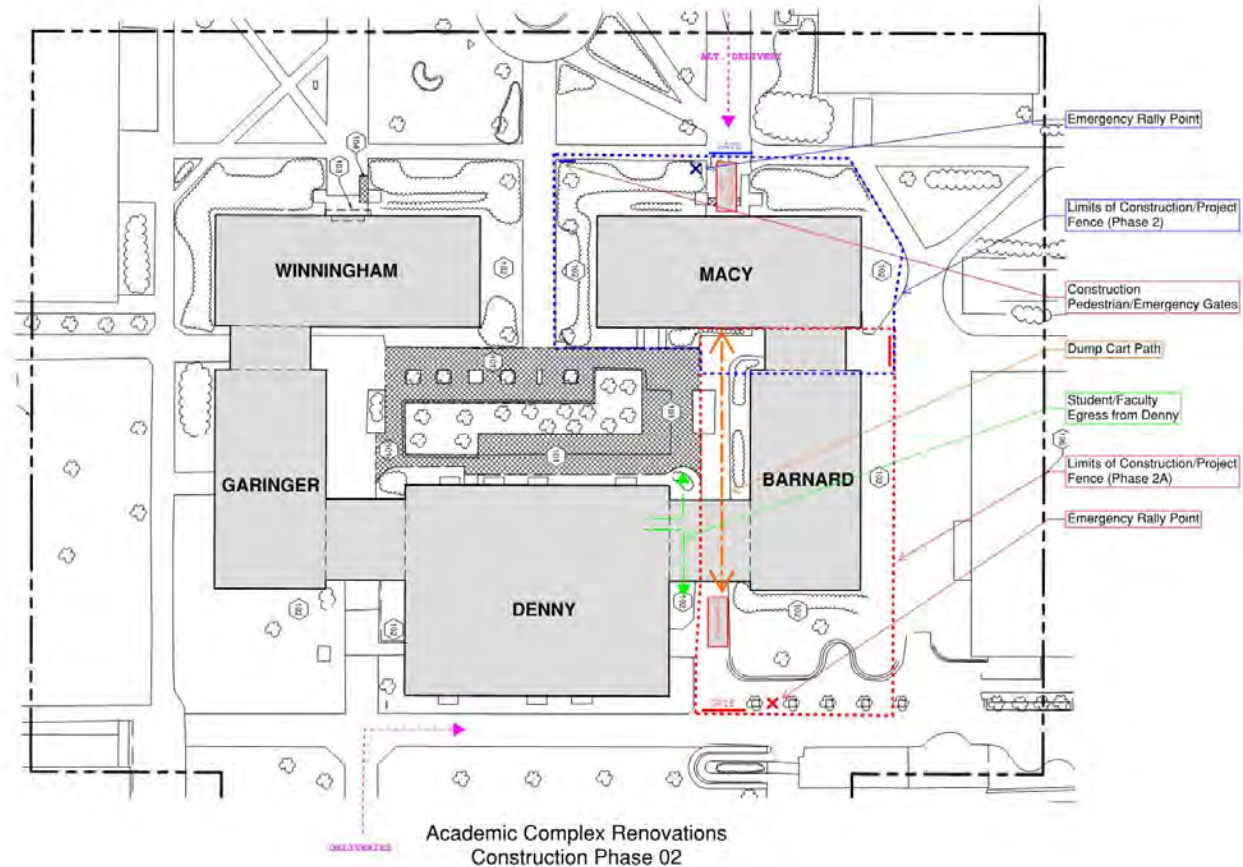
Thank you for your cooperation.



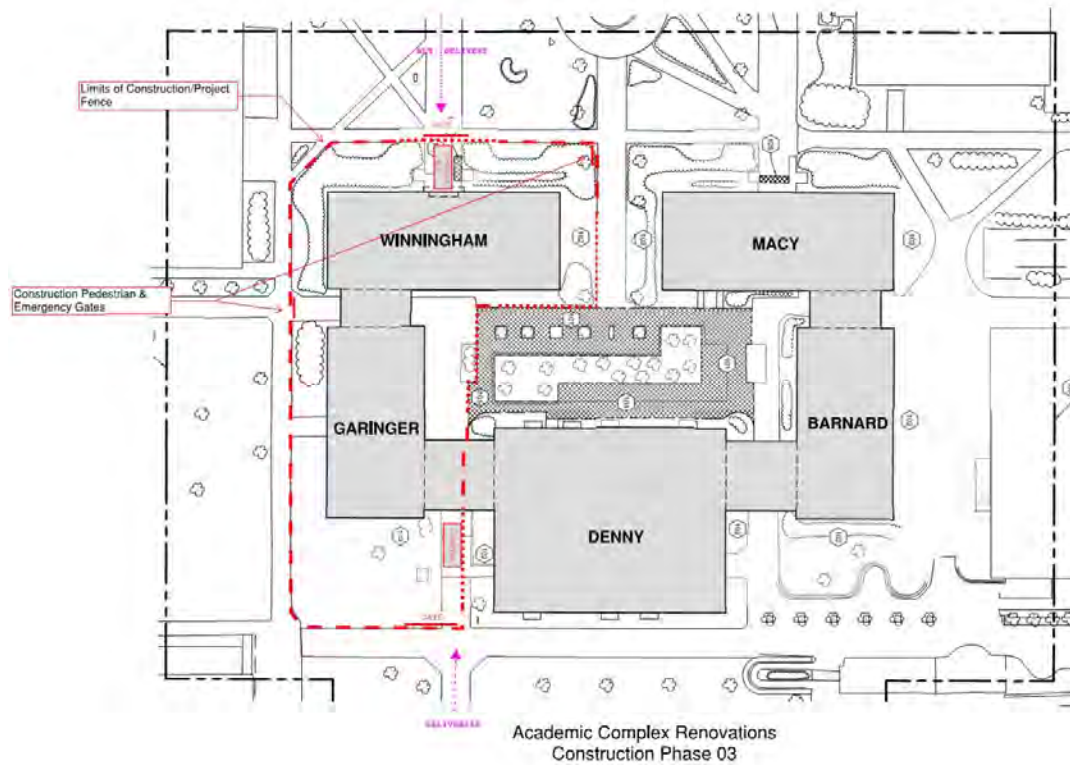
Phase 01: December 2016 – July 2017



Phase 02: July 2017 – April 2018



Phase 03: June 2018 – December 2018



Project Safety

- A written site specific safety plan is required by each Contractor.
- Each worker is required to attend mandatory jobsite safety orientations and meetings.
- Each Subcontractor shall dedicate one employee for the duration of work, as a project safety committee member.
- CM to badge in all workers prior to starting work onsite.
- Drug and alcohol free workplace.
- All Contractors are accountable to follow the Project Safety Program and OSHA guidelines.
- Contractors are responsible for Subcontractor management, and supervision at all times while performing work.
- Safety is everyone's responsibly, and safety implementation starts at the top.

Project Documents

- Volume 1 of Specifications Dated 9-7-2016
- Volume 2 of Specifications Dated 9-7-2016
- Volume 1 of Drawings Dated 9-7-2016
- Volume 2 of Drawings Dated 9-7-2016
- Barnhill Contracting Bid Manual – Issued with Addenda 1
- All Addenda: TBD
- Project Submittals are critical and must be turned in within 15 days of NTP.
- Responsibility to review ALL Project Documents, not limited to specific work scope, and coordination of work with other trades.

Project Documents

Documents are Available to View at:

1. Construction Manager at Risk – Barnhill Contracting Company, 5701 Westpark Drive, Suite 205, Charlotte, NC 28217, Phone: (704) 579-6070.
2. Designer – Woolpert, 11301 Carmel Commons Blvd., Suite 300, Charlotte, NC 28226, Phone: (704) 525-6284.
3. Owner – UNC Charlotte, Facilities Management/Police Building, 2nd floor – Capital Projects, 9151 Cameron Blvd, Charlotte, NC 28223, Phone: (704) 687-0615
4. Metrolina Minority Contractors Association (MMCA), 2848 Queen City Drive, Suite B, Charlotte, NC 28208, Phone: (877) 526-6205

Digital Copies of the Plans and Specifications are available at the Barnhill Contracting Plan room, and at the following:

1. Minority Contractors Resource Center, 2915 Rozelles Ferry Road, Charlotte, NC 28208. Ph. 704-332-5746
2. Associated General Contractors (AGC) Carolinas Branch and the Hispanic Contractors Association of the Carolinas (HCAC) – (800) 364-2059 or sales@isgft.com
3. North Carolina Offices of Dodge Data & Analytics – (800) 393-6343 <http://dodgeprojects.construction.com/>
4. Construction Market Data – (800) 424-3996



Documents:

Historically Underutilized Businesses (HUB)

Guidelines for Recruitment and Selection of Minority Businesses for Participation in State Construction Contracts (dated MB Guidelines 2002) and Minority Business Participation Forms (to be submitted with bids) can be found at the State Construction Office website - <http://www.nc-sco.com/docBidding.aspx>.

The following forms must be submitted with the bid;

Identification of HUB Certified/Minority Business Participation form (dated MB Forms 2002- Revised July 2010)

- **AFFIDAVIT A** – Listing of Good Faith Efforts (dated MB Forms 2002-Revised July 2010),

Or

- **AFFIDAVIT B** – (Intent to Perform Contract with Own Workforce (dated MB Forms 2002-Revised July 2010).

One of the following forms is to be submitted by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder;

AFFIDAVIT C – Portion of the work to be Performed by HUB Certified/Minority Businesses (dated MB Forms 2002-Revised July 2010). This form is not required if the bidder submitted Affidavit B.

Or

AFFIDAVIT D – Good Faith Efforts (dated MB Forms 2002-Revised May 2010). This form is not required if the bidder submitted Affidavit B.

Bid Packages

BP-01A General Trades & Final Cleaning

BP-02C Unit Pavers

BP-02E Landscaping

BP-02F Soil Stabilization (Chemical Grout)

BP-02K Abatement & Demolition

BP-04A Turnkey Masonry

BP-05B Misc. Steel

BP07A Caulking & Waterproofing

BP-08A Glazing & Windows

BP-08B Turnkey Doors, Frames, and Hardware

BP-09A Metal Studs & Drywall

BP-09B Acoustical Ceilings

BP-09C Metal Studs & Drywall & ACT Ceilings

(Combo 09A + 09B)

BP-09D Ceramic Tile

BP-09E Resilient, Carpet, and Base

BP-09F Painting

BP-10A Specialties & Toilet Accessories

BP-10S Identifying Devices

BP-12B Window Treatments

BP-12C Fixed Audience Seating

BP-15A Fire Sprinkler

BP-15C Plumbing Systems

BP-15D HVAC Systems & Controls

BP-15E HVAC Testing & Balancing

BP-16A Electrical & Fire Alarm

There will be a separate Turnkey Concrete Package BP-03A Prequalified and bid at a later date.

Bidder Instructions

- **Definitions**
 - Project documents include drawings, specifications, bid manual and all addenda.
- **Bidder Representations**
 - Bidder has reviewed all project documents.
 - Bidder has visited/is familiar with project site.
 - Bidder has reviewed the hazardous material report.
 - Bidder has reviewed geotechnical information.
 - By submitting bid, bidder agrees project documents are biddable and buildable for stated price.
- **Interpretation or Corrections**
 - All bidder questions to be in writing – The cutoff date of pre-bid questions is October 4th, 2016. Questions, clarifications, or substitutions received after October 4th, 2016 will not be acknowledged
 - All questions received will be responded to via addendum and shared with all bidders.
 - CM is relying on bidders ability to provide complete and comprehensive bid.

Substitutions

- Must be received by 10/4/2016 for Owner and Architect approval.
- Must complete “Substitution Request Form” in bid manual.
- Bidder responsible for any/all domino impacts of approved substitution.
- SEND ALL BID SUBMISSION QUESTIONS TO:

Reiland Funderburk | rfunderburk@barnhillcontracting.com | 704.579.5455

Preferred Alternates

- Alternate No. 11 – Carpet
 - Provide basis of design carpet manufactured by Mannington Commercial as noted in section 096813 Tile Carpeting, and Finish Schedule.
- Alternate No. 12 – Exterior Face Brick
 - Face brick shall be “Morrocroft Special” “#02-79-1 manufactured by Hanson Brick at www.hansonbrick.com (one available source in Charlotte is BrickYard Limited). Installation shall comply with UNCC Std. Spec S02515.
- Alternate No. 13 – Fire Alarm System
 - Fire Alarm System to be Simplex Grinnell. The E.C. is to provide alternate pricing for a Simplex Grinnell fire alarm system that is compatible with the existing campus wide system.

Questions or Concerns?

Bidder Instructions

- No Modification to Bid Form Permitted.
- Bid Form signed by Company Officer.
- Price to include anything and everything required to complete work.
- Provide unit and alternate prices as requested.
- Acknowledge receipt of addenda as issued.
- No exclusions, qualifications or clarifications on bid form permitted.
- Fill out all blanks on proposal form.
- Bid Forms will be sent out to pre-qualified bidders only.

Bidder Instructions

- **Post Bid 72- Hour Submission Items**

- Affidavit C with MWBE Firms
- Affidavit D MWBE Good Faith Effort
- Tiered Subcontractor Listing

- **Contract Award**

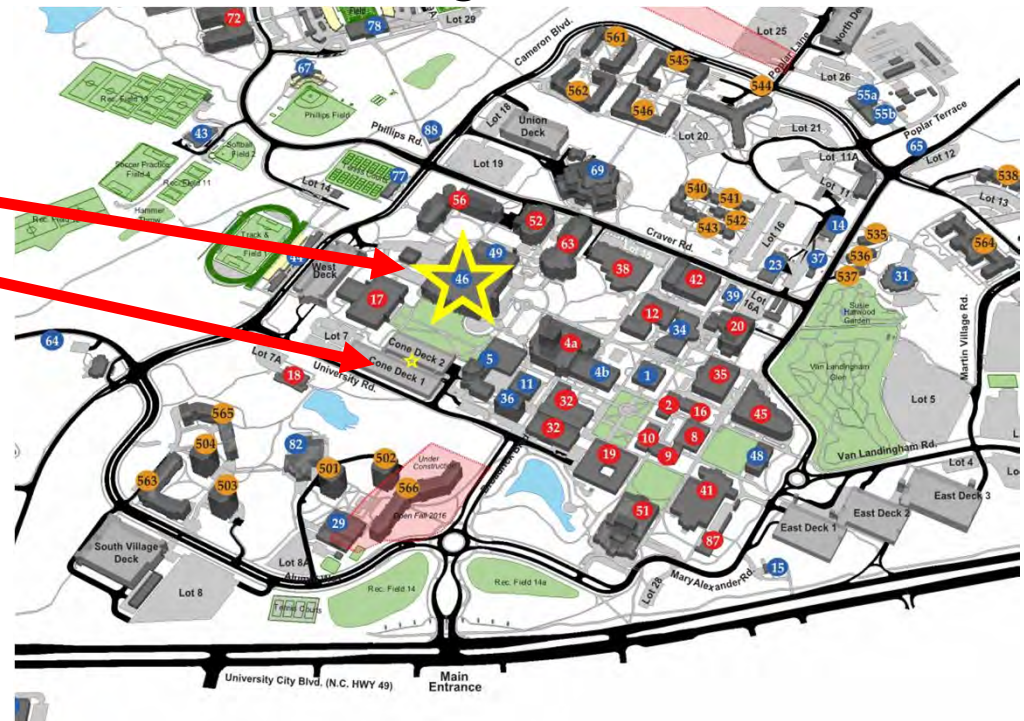
- CM & Owner will determine the most:
 - Responsive- Bid form completed correctly.
 - Responsible- price adequately reflects entire scope, project requirement compliance
 - Lowest Bid- lowest cost to owner.
- CM will issue Notice of Intent to Award to all Selected Bidders.
- Selected bidder has 10 workdays to execute Subcontract.
 - Review Sample Contract Prior to Bid.
 - No contract modifications permitted.

Bonding Instructions

- Bid Bond required for any bid \$500,000 or more.
- Payment & Performance Bond required for any package \$500,000 or more (will be listed as separate add alternate on bid form).
- If submitting on multiple trade packages and the aggregate of the packages meets or exceeds \$500,000.00, a Bid Bond, and Payment and Performance Bond will be required for each trade package.
- Bid forms will be mailed by CM to all prequalified bidders before bid.

Bid Day Activities

- Sealed proposals will be received in Salons A&B on the 3rd floor of the Barnhardt Student Activity Center
- Building # 46
- Parking – Cone Deck
- Date – 10/18/2016
- Time – 2:30 p.m.



Bid Day Activities

- Prequalified 1st Tier Bidders Only
- All bids must be in sealed envelope and received by 2:30 p.m.
- Hand delivery strongly preferred and recommended.
Attn: Ms. Joyce Clay – 2nd Floor Capital Projects
Facilities Management/Campus Police Building
9151 Cameron Boulevard
Charlotte, NC 28223
(704) 687-0615
- Overnight via UPS or FedEx before 1:30 PM on bid date to:
Attn: Ms. Joyce Clay
The University of North Carolina at Charlotte
Facilities Management – Capital Project
9201 University City Boulevard
Charlotte, NC 28223

Scope Review/Confirmation Meeting

- Includes bidder estimator, project manager, and proposed field personnel.
- Bring estimating notes, takeoff, etc.
- Meetings held at Barnhill-Charlotte Office
- CM to Notify Bidders within 72 hours of bid day to attend scope reviews.
- Scope review meeting duration NTE 90 Minutes

Project Scheduling

- Phase 01 Denny 6 day workweek critical 7 a.m. – 5 p.m.
- Phase 02 and 03 work, 5 day workweek 7 a.m. – 5 p.m.
- Project Schedule will be issued in Addenda
- Night and weekend work is required for portions of construction. See Bid Package Scope of work for requirements.
- BIM Coordination for procurement of materials is Critical.

Construction Engineering/Admin Requirements

- Weekly Coordination Meetings Mandatory.
- Daily Field Reports are Mandatory.
- Weekly Safety Meeting Documentation Required from ALL subcontractors.
- All submittals to the CM no later than 15 days from notice to proceed.
- Each contractor required to conduct thorough review of submittals from suppliers/3rd tier for accuracy and completeness prior to submittal to CM.
- Closeout documents submitted as early as possible.
- Warranties submitted separately after date of Final Acceptance.

Quality Control

- NO Negotiation of Quality.
- BIM 360 Field will be utilized for QC Management & Punch list , iPads recommended.
- Issues log sent out on daily basis, responsibility of Subcontractor PM to educated field staff on the deficiencies and issues.
- Respect completed work of others and protect your own.

ANY
QUESTIONS
?



PROJECT NAME: UNC Charlotte Academic Complex Renovation

MEETING: Pre-bid and Preferred Alternate Meeting

DATE: 9-20-2016

NAME	COMPANY	PHONE	E-MAIL
Madison Tweed	Drypro	603-322-1811	mtweed@dryprosystems.com
John Moore	Structural Metal Repair	704-840-2622	Ja Moore 281@yahoo.com
Kim Brown	Structural Metal Repair	704-840-2622	kimbrun.0427@yahoo.com
Lisa Gilgeours	Gilgeours Const.	336-558-6572	lgilgeours@gilgeoursconstruction.com
Bobby Nichols	Bobbys Paint	704-361-4024	Bobbys Paint @ BellSouth
Brad Harmon	Hughes Metal Works	336-297-0808	bharmon@hughesmetalworks.com
Jim Wallace	Rhino Demo	843-399-2153	jimwallace@rhinodemodemo.com
David Welling	Woodport	704-526-313	david.welling@woodport.com
Jerry Digs	Barxz	704-627-894	jerrydigs@barxz.com
Ton Taylor	PPG Paints	704-634-8624	t.taylor@ppg.com
Tyler Wilson	PPG Paints	803-543-7276	twilson@ppg.com / Charlotte
Enka Lannet	Aircond Corp.	704-921-2315	ecamenon@aircond.com
Paul Farrell	CRW, Inc	919-528-6400 ²¹³	pfarrell@crwonline.com
Ken Daniels	Expuricon	704-525-9722	kdaniels@expuricon.com
Daniel Mock	EHL	704-527-2018	dmock@ehgllc.com
Drew Swindler	Youngstown Shale	866-782-2373	swindler@youngstownshale.com
Toby Wiles	STONE REST.	704-201-9709	twiles@stoneres.com
JEFF DOWDY	NEO	(704)920-0829	jdowdy@NEOCORPORATION.COM
Brian Maas	ECS	(336)209-8069	Bmaas@ecslimited.com
David King	FRS	980-505-0896	dking@foundationrepairservices.com
Mark Lee	TRIFECTA	704-496-3996	MLEE@trifecta.com
CHRIS GIBBY	URITEK	336-402-6289	cgibby@team-uma.com
Buster Beaver	Watson Electric	704-947-5151	Buster@watsonelectric.com
Rich Bistline	Foss Demolition	(919)614-5684	rbistline@fossdemolition.com
Kenny Smith	HAYWARD BAKER	(336)668-0884	ksmith@haywardbakel.com
MATT LEE	RESEARCH AIR	704-321-0491	matt@researchairflo.com
Nason Ellis	P.C. Godfrey	(704)394-6604	Callis@pcgodfrey.com



Meeting Minutes

Pre-Bid Meeting

Project Name:	Academic Complex Renovation	SCO ID # 13-11117-01A
Meeting Date:	September 20, 2016	

- I. Introduction
 - A. Introduction of Project teams from Barnhill, UNC Charlotte, & Woolpert
- II. Project Goals
 - A. Site Safety
 - B. Teamwork and Communication
 - C. Meeting schedule deadlines
 - D. 25% MWSBE Participation
- III. Key Dates
 - A. Last Day for Question – 10/4/2016
 - B. Bid Day – 10/18/2016 @ 2:30 PM
 - C. Scope Review Meetings – 10/20/2016 – 10/28/2016
 - D. Start Construction – 12/19/2016
 - E. Phase 1 – 12/19/2016 – 07/17
 - F. Phase 2 – 8/23/17 – 04/18
 - G. Phase 3 – 6/11/18 – 12/14/18
- IV. Logistics/Work Rules
 - A. Phase 01 Work Hours
 - 1. 7AM – 5PM Monday through Saturday
 - B. Phase 02/03 Work Hours
 - 1. 7AM -5PM Monday through Friday
 - C. Deliveries are limited. Allowable delivery times will be issued via Addenda.
 - D. Parking is NOT available on site
 - 1. Offsite parking will be provided @ Regal Cinema 11240 N Tryon St, Charlotte, NC 28262

V. Preferred Alternates

- A. Alternate No. 11 – Carpet
- B. Alternate No. 12 – Exterior Face Brick
- C. Alternate No. 13 – Fire Alarm System

VI. Bonding Instructions

- A. Bid Bond required for any bid \$500,000 or more, and all building envelope packages
- B. Payment & Performance Bond required for any package \$500,000 or more (will be listed as separate add alternate on bid form).
- C. If submitting on multiple trade packages and the aggregate of the packages meets or exceeds \$500,000.00, a Bid Bond, and Payment and Performance Bond will be required for each trade package

VII. Bid Day Activities

- A. Prequalified 1st Tier Bidders Only
- B. All bid must be in sealed envelope clearly labeled, with company name, and bid package, and received by 2:30PM
- C. Hand Delivered and mailed no later than 1:30 PM to:

Attn: Ms. Joyce Clay – 2nd Floor Capital Projects

Facilities Management/Campus Police Building

9151 Cameron Boulevard

Charlotte, NC 28223

(704) 687-0615

VIII. Question?

- A. Does Barnhill require a security wired check?

Yes, Bid Bond is required for any bid \$500,000.00 or more, and all building envelope packages. If submitting on multiple trade packages and the aggregate of the packages meets or exceeds

\$500,000, a Bid Bond, and Payment and Performance Bond will be required for each trade package.

B. What threshold is required for bid security?

\$500,000.00

C. Didn't see work hours in specifications. Does bid need to include hours based up standard 5-day work week?

All bids should include labor pricing for work hours went provided for each phase. Phase 01 7AM-5PM Monday through Saturday. Phase 02/03 7AM-5PM Monday through Friday.

D. No parking on-site at all?

No, all parking will be off site at Regal Cinemas. 11240 N Tryon St, Charlotte, NC 28262.

E. How will deliveries be delivered to site?

Deliveries will need to be scheduled, and approved by Barnhill. Delivery routes will be provided.

F. What is the turnaround time for issue of payment?

If a MWBE Firm requests assistance with cash flow needs, Barnhill Contracting will work with that Subcontractor to arrange payment through a joint check arrangement.

UNC Charlotte noted that a Baseline Schedule and SOV prior to payment.

G. When will alternates be approved?

Alternates will be reviewed by the Owner after bids have been received.

H. Will retainage be released through duration of project, or released through each phase?

Retainage will be held through the duration of the project as a whole, not for each phase.

I. Will material be paid for that are being stored on site?

Material that is stored onsite will be paid for. Material that is stored off site, even if it is kept in a bonded warehouse, will not be paid for.

The date and time for the second pre-bid site visit will be issued with Addenda #1

SECTION 04 20 00

UNIT MASONRY

Part 1 General

1.01 Related Documents

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

1.02 Summary

- A. Section Includes: Furnishing all materials, labor, tools and equipment necessary to perform the following work:
 - 1. Face Brick
 - 2. Mortar and Grout
 - 3. Ties and Anchorage Assemblies

1.03 Related Sections

- A. Masonry Mortaring (Section 04 05 13)
- B. Masonry Tuck-Pointing (Section 04 05 31)
- C. Sheet Metal Flashing and Trim (Section 07 62 00)

1.04 QUALITY ASSURANCE

- A. References: Current edition of the following standard references shall apply to the work of this section as indicated. Suffixes indicating issue date are omitted from reference numerals in this text. Masonry work shall comply with the following standards and codes except as indicated otherwise on Drawings or herein.
 - 1. American Society for Testing and Materials (ASTM)
 - 2. Brick Institute of American (BIA)
 - 3. International Masonry Industry All-Weather Council (IMIAC)
 - 4. American Concrete Institute (ACI)
 - 5. Specifications for Concrete Masonry Construction (ACI 530.1)
 - 6. North Carolina State Building Code, latest edition (NCSBC)
- B. Qualifications of Contractor:
 - 1. Provide at least one (1) English speaking foreman/superintendent on site at all times.
 - 2. Use skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.
 - 3. Provide one (1) skilled journeyman mason who shall be present at all times during execution of this portion of the work and who shall personally direct all work performed under this section.

1.05 Submittals

- A. Product Data: Submit (in triplicate) manufacturer's printed technical and physical data of all materials required in this section.
- B. Samples: Showing the full range of colors and textures available for exposed masonry units and colored mortars.
- C. Material Test Reports: For each type of masonry unit, mortar, and grout required.
- D. New Brick Masonry Units:
 - 1. Certificates: Obtain new masonry units from the same source. Submit certificate stating masonry units supplied by the Contractor on project meet requirements of Contract Documents. Certificate shall be on company letterhead of manufacturer of masonry units, and shall be signed by an office of the company.
 - 2. Masonry Mock-up: A masonry mockup for approval of colors and workmanship shall be built on site prior to beginning masonry work. This panel shall show workmanship and will include face and backup construction and all accessories specified for on this project. The panel shall be 4'-0" x 4'-0", unless specified otherwise. The panel shall be constructed at a location indicated by the Architect/Project Manager. The materials used shall be provided by the project supplier and shall represent the final product in all aspects. The panel shall be protected from construction operations, but shall remain in place and exposed to the elements until project completion. This mock-up will be used for approval of brick, mortar, joint material, flashing, weep holes and precast pieces to be used on the

project. This panel shall show color range and texture of masonry units and mortar joints required on this project.

3. Quality Standards: Perform work in accordance with ACI 530 and ACI 530.1.

E. Cell Vent Weeps: Submit (in duplicate) color sample of cell vent weep for approval by Owner

1.06 DELIVERY, STORAGE, AND HANDLING

A. Materials shall be delivered to the project site in manufacturer's original, unopened containers with manufacturer's brand name clearly marked thereon.

B. Store materials under cover in a dry place. Cement, lime, and air-setting mortars shall be stored in watertight sheds with elevated floors. Protect cement and lime from dampness.

C. Protect all materials from rain, ground moisture, and airborne contaminants.

D. Masonry Units: Stack masonry units at site and avoid chipping. Protect masonry units from freezing and thawing, wetting, staining, soiling, and physical damage. Keep masonry units covered to prevent soaking from rain.

1.07 PROJECT CONDITIONS

A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.

B. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.

1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.

2. Protect sills, ledges, and projections from mortar droppings.

3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.

4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.

C. Cold-Weather Requirements:

1. Shall meet IMIAC "Specifications."

2. Remove and replace unit masonry damaged by frost or by freezing conditions.

3. Comply with cold-weather construction requirements in ACI 503.1.

4. Do not perform masonry work when temperature is 40 °F and falling, or when freezing weather is predicted within ensuing 24 hours unless suitable means are provided to heat materials, protect work from cold and frost, and insure that mortar will harden without freezing.

5. No antifreeze or accelerators shall be used.

D. Hot-Weather Requirements: When ambient temperatures exceed 100 °F (38 °C), or 90 °F (32 °C) with a wind velocity greater than 8 mph (13 km/h), do not spread mortar beds more than 48 inches (1200 mm) ahead of masonry. Set masonry units within one (1) minute of spreading mortar. Comply with hot-weather construction requirements contained in ACI 530.1.

1.08 PROTECTION

A. Protect existing adjacent facing materials and other building components during remediation work to prevent damage. Damage to building components due to remediation construction shall be repaired at no cost to the Owner.

1.09 QUALITY CONTROL

A. Unless specifically shown otherwise on the Drawings or specified otherwise herein, all masonry work shall be installed in strict accordance with the printed instructions of the Brick Institute of America as documented in their Technical Notes, Section 7A Rev., 7B Rev., 21 Rev., 21A Rev., 21B, 21C, 28 Rev., and 28B Rev. and other applicable Technical Notes.

Part 2 Products

2.01 FACE BRICK

A. Physical Properties: Brick shall meet the requirements of ASTM C216, Type FBS, Grade SW.

B. General:

1. Typical brick shall be style, size, shape, color, blend and texture to match the existing brick as closely as possible. Special sizes and shapes shall be provided as required to match existing.

2. Existing bricks which are removed from the existing wall may be reused if undamaged and cleaned.
3. Provide units without cores and with exposed surfaces finished for ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces.
4. Provide solid units where core holes would be visible in the finish work or would allow water penetration.
5. Extremes in the color range shall be culled if it would be detrimental to the appearance of the finished wall.
6. Obtain face brick from one manufacturer of uniform color and appearance for the entire project.
7. Provide special shapes for applications requiring brick of size, form, color, and texture on exposed surfaces that cannot be produced by sawing.
8. Basis of Design: Face brick shall be "Morrocroft Special" "#02-79-1 manufactured by Hanson Brick at www.hansonbrick.com (one available source in Charlotte is Brick Yard Limited). Installation shall comply with UNCC Std. Spec S02515. Brick Pavers shall be 2-1/4"x4"x8".

2.02 TIES

A. Veneer Anchors:

1. Provide two-piece assemblies that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to wall.
2. Anchor Section: No. 75 Heckman Pos-I-Tie single screw system, or approved equal.
 - a. Barrel Nuts: 92 percent Zamac 3 Zinc alloy.
3. Tie Section: Type 304 Stainless Steel, 3/16-inch, Triangular-Shaped Wire Tie.
4. Other Acceptable Manufacturer: Hohmann & Barnard, Inc.

- ### B. Space Anchors:
- As indicated, but not more than 16 inches (406 mm) on center vertically and 24 inches (610) on center horizontally with not less than 1 anchor for each 2.67 square feet (.25 sq. m) of wall area. Install additional anchors within 12 inches (305 mm) of openings and at intervals, not exceeding 36 inches (914 mm), around perimeter.

2.03 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, unless otherwise indicated. Do not use calcium chloride in mortar or grout.
- B. Mortar for Unit Masonry: See Section 04 05 13
- C. Grout for Unit Masonry: Comply with ASTM C476, minimum 3,000 psi compressive strength.
- D. Basis of Design: Mortar shall match Robinson Hall, Brick Yard Limited 115, or match previous projects on campus.

2.04 WEEPS

- A. Provide cellular composition cell vents for moisture drainage. Shall be 3/8 inches wide, maximum 24 inches on center. Color of cell vents to be selected by Owner

Part 3 Execution

3.01 EXAMINATION

- A. Contractor shall examine areas to receive masonry, and shall examine conditions under which units will be installed. Installer shall notify Contractor and Engineer in writing of conditions detrimental to proper and timely completion of work of this section.
- B. During installation, Contractor shall immediately notify the Engineer of any variances in performance of masonry accessories, color or texture masonry mortar.
- C. Work of this section shall not proceed until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Contractor shall be responsible for delivery of required materials to project site before start of masonry work so as not to delay work of this section.
- B. Verify items provided by other sections of work are properly sized and located.
- C. Provide temporary bracing of existing masonry during demolition work as required. Maintain in place until new sections of masonry are completed.
- D. Establish lines, levels, and coursing to match existing lines, levels, and coursing. Protect from disturbance.

3.03 LAYING UNIT MASONRY – GENERAL

- A. Cutting of Units: Where cutting is necessary, make all cuts with a motor driven masonry saw. Units with chips, or with irregular cuts, will not be accepted. All cuts shall be a wet cut. Saw cuts shall be straight and true and aligned with existing brick masonry jointing. Irregular cuts will not be accepted. Saw cuts shall not cause chipping or breaking of brick units nor shall cuts damage existing shelf angle or through wall flashing.
 - B. Coursing: Masonry work shall be laid out on a nominal uniformly wide joint to match existing masonry. Work shall course vertically so as to coincide with existing adjacent coursing.
 - C. Masonry shall be reinstalled in an alignment that is consistent with and blends with the existing adjacent veneer. All existing architectural features in masonry shall be reinstalled.
 - D. Mortar: Shall be prepared in accordance with Section 04 05 13 of contract documents. Remove excess mortar.
 - E. Weep Holes: Install weep holes in veneer by omitting mortar in full head joint and installing cell vents where specified on the Drawings.
 - F. Wetting of Brick: All brick shall be thoroughly wetted as necessary to reduce the rate of absorption of water at time of laying to not more than 0.7 of an ounce (20 grams per minute) per brick when placed on its flat side in ¼ inch of water for one minute. Existing brick surfaces where new mortar will be bonded to the face shall also be pre-wetted.
 - G. Disturbed Units:
 - 1. Do not temp or disturb brick after laying.
 - 2. Where bricks are disturbed or must be moved after the mortar has begun to lose its moisture, the brick and all adjacent mortar shall be removed and reset completely.
 - H. Tooling:
 - 1. All joints shall be tooled to a uniform configuration to match existing joints. All joints shall be tooled at approximately the same degree of moisture content and firmness to achieve a uniform color and texture and to close all hairline cracks and crevices.
 - 2. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than the joint thickness, unless otherwise indicated.
 - 3. Grapevine joint: all tooled joints for brick work shall be tooled 1/8" grapevine joints. Head joints to be struck first and then bed joints. The jointing tools shall be replaced as necessary to provide crisp, distinct grapevine joints.
 - I. Cavities: All cavities shall be completely free of mortar.
- 3.04 BRICK MASONRY LAYING TECHNIQUE**
- A. All joints between brick shall be completely filled with mortar. Brick shall be laid in a full, lightly furrowed bed of mortar with the head joints completely filled by placing sufficient mortar on the end of the brick so that when the brick is shoved into place, the head joint will be filled. Buttering of face edge and then slushing will not be permitted. All joints shall be cut flush.
 - B. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses.
 - C. Built-in Work: As construction progresses, build in items specified under this and other Sections of the Specifications. Fill in solidly with masonry around built-in items.
 - D. At cavity walls, bevel beds away from cavity, to minimize mortar protrusions into cavity.
- 3.05 REINFORCED UNIT MASONRY INSTALLATION**
- A. Temporary Formwork and Shores: Construct formwork and shores to support reinforced masonry elements during construction.
 - B. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other temporary loads that may be placed on them during construction.
 - C. Placing Reinforcement: Comply with requirements in ACI 530.1.
 - D. Grouting: Do not place grout until entire height of masonry to be grouted has attained sufficient strength to resist grout pressure.
 - E. Comply with requirements in ACI 530.1 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
- 3.06 MASONRY CLEANING**
- A. While laying the brick, good workmanship and job housekeeping practices shall be used so as to minimize the need for cleaning the brick. Protect the base of the wall from mortar droppings, protect the wall by setting scaffolds so that mortar is not deflected onto the wall,

and at the end of each work day, set the scaffolding boards so that they do not deflect rainfall onto newly laid masonry. The bricklaying technique shall be such that mortar does not run down the face of the wall, or smear the mortar onto the brick face. After the joints are tooled, cut off mortar tailings with the trowel and brush excess mortar burrs and dust from the face of the brick. Do not bag or sack the wall, but use a bricklayer's brush made with medium soft hair.

- B. Remove all large mortar particles with a hardwood scraper.
- C. If after using the above outlined techniques, additional cleaning of the walls is found necessary, allow the walls to cure three weeks prior to initiating further cleaning processes.
- D. Saturate the wall with clean water. The wall shall be thoroughly saturated prior to and at the time cleaning solution is applied.
- E. Clean the wall only with an approved cleaning solution applied with a brush, starting at the top of the wall. Approved cleaners shall be composed primarily of detergents, wetting agents and buffering agents. The addition of muriatic acid to the cleaning solution will be considered only as a last resort and may be used only with the written approval of the Engineer. The use of any of the cleaning agents shall first be approved in writing by the Engineer. The concentration, method of application of the cleaning solution, and method of scraping shall be as outlined on the container by the manufacturer.
- F. High pressure water shall not be used for cleaning except with the written approval of the Engineer.
- G. Abrasive blasting shall not be allowed.
- H. Immediately after cleaning a small area, the wall shall be rinsed thoroughly with quantities of water.
- I. Protect adjacent surfaces and materials during brick cleaning operations.
- J. After the walls are cleaned, take necessary precautions to ensure that other contractors and subcontractors do not damage or soil the walls.

3.07 POINTING

- A. On completion of newly constructed masonry walls, point up all exposed masonry, fill all holes and joints; remove loose mortar; cut out defective joints; and re-point where necessary.

3.08 WORKMANSHIP

- A. Masonry work which does not conform to specified requirement, including tolerances and finishes, shall be corrected and/or replaced as directed by Engineer at Contractor's expense, without extension of time. Contractor shall also be responsible for cost of corrections to any work affected by or resulting from correction to masonry work.

END OF SECTION

SECTION 01 23 00

ALTERNATES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

1.03 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.04 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 SCHEDULE OF ALTERNATES

ALTERNATES: Include the following as indicated on the drawings:

A. Alternate No. 01

Alt No.01 - Reclad Exterior Walls with Brick (Denny)

Description: The scope of work for this alternate shall include the removal of the complete existing precast exterior wall system on the Denny Building, unless specifically noted to keep selected portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. A steel stud and associated wall system components to result in a brick recladding brick system for the exterior of the Denny building.

Alternate No. 01A:

Alt No. 01A - Alternate Method of Construction to Reclad Exterior Walls (Denny)

Description: The scope of work for this alternate shall include the keeping the complete existing precast exterior wall system on the Denny Building, unless specifically noted to remove portions of precast. A new exterior wall system is to be installed and coordinated with all other existing building components. The existing precast will be integrated into other wall system components to result in a brick recladding brick system for the exterior of the Denny building. Masonry shop drawings submitted for this alternate to indicate masonry anchors used to attach the brick ties in a random pattern and attached to the existing precast with a minimum embed, so not to damage the existing precast panels during recladding installation and adequate pullout strength for the masonry recladding.

B. Alternate No. 02:

Alt No. 02 - Sealant Replacement/Elastomeric Coating/Spall Repairs at Spandrel Beams and Sealant Replacement at Aggregate Surfaced Panels (Denny)

Description: The scope of work for this alternate shall include the removal and replacement of all sealant joints in the aggregate surfaced wall panels and the horizontal joint above the panel flashing. The work shall also include cleaning the aggregate surfaced wall panels and concrete spandrel beams. The work shall also include installation of an elastomeric coating over the exposed face of the concrete spandrel beams. Contractor shall provide in the bid the lump sum price to perform this work. (Repair of spalled concrete on the spandrel beams will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost.

C. Alternate No. 03:

Alt No. 03: Brick Panel through Wall Flashing Repairs (Macy, Barnard, Garinger, Winningham)

Description: The scope of work for this alternate shall include the removal of the existing brick masonry, installation of a new through wall flashing system, and installation of new brick masonry above the shelf angles along the bottom of the brick panels. Contractor shall provide in the bid the lump sum price to perform this work. (Replacement of deteriorated shelf angles and installation of shim plates will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost.

D. Alternate No. 04:

Alt No. 004: Brick Panel Repairs (Macy, Barnard, Garinger, Winningham)

Description: The scope of work for this alternate shall include the cleaning and installation of a clear water repellent sealer over of all brick masonry surfaces. The work shall also include removal of the existing and installation of a new cap flashing and sealants at the top of the panels. Contractor shall provide in the bid the lump sum price to perform this work. (Tuckpointing of deteriorated mortar joints will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost.

E. Alternate No. 05:

Alt No. 05: Concrete Spall Repairs/Elastomeric Coating at Spandrel Beams (Macy, Barnard, Garinger, Winningham)

Description: The scope of work for this alternate shall include the cleaning and installation of an elastomeric coating over the exposed face of the concrete spandrel beams. Contractor shall provide in the bid the lump sum price to perform this work. (Repair of spalled concrete on the spandrel beams will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost).

F. Alternate No. 06:

Alt No. 06: Connector Building and Electrical Room (Denny) Repairs

Description: The scope of work for this alternate shall include the cleaning and painting of the existing louvers. The work shall also include replacement of existing sealants. The work shall also include the cleaning and installation of an elastomeric coating over the exposed face of CMU and the concrete spandrel beams as appropriate. (Repair of spalled concrete on the spandrel beams will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost.

G. Alternate No. 07: Carpet and Wall Base Material Replacement and New Wall Base.

Base Bid: Remove existing flooring (carpet, VCT flooring, and wall base) and install new flooring (carpet, vct, and wall base) as noted on the Drawings & Finish Schedule.

Alternate: 7A - Remove existing corridor VCT flooring and wall base on the second floor of Denny building and provide new corridor VCT flooring and wall base on the second floor of Denny building to accommodate corridor way finding.

Alternate: 7B - Remove existing flooring (carpet and/or VCT flooring, and wall base) and install new flooring (carpet, vct, and wall base) as noted by Alternate 7B on the Drawings & Finish Schedule.

Alternate: 7C - Remove existing flooring (carpet and/or VCT flooring, and wall base) and install new flooring (carpet, vct, and wall base) as noted by Alternate 7C on the Drawings & Finish Schedule.

H. Alternate No. 08

Alt No. 08: Exterior Trash Enclosure Repairs

Description: The scope of work for this alternate shall include the cleaning and painting of the existing walls, gates and other components for the exterior trash enclosures located in the breezeways. The work shall also include replacement of existing sealants. The work shall also include the cleaning and installation of an elastomeric coating over the exposed face of CMU and the concrete columns as appropriate. (Repair of spalled concrete on the columns will be performed under this Alternate, but will be performed on a unit rate basis and shall not be included in the lump cost.

I. Alternate No. 09

Alt No. 08: Exterior Electrical Room South side of Denny Building

Description: The scope of work for this alternate shall include the cleaning and painting of the existing walls, doors and other components for the exterior CMU wall located on the south side of Denny building located in the breezeway. The work shall also include surface prep for a smooth finish of the exterior CMU wall replacement of existing sealants. The work shall also include the cleaning and installation of an elastomeric coating over the exposed face of CMU. (Note this work is also included as part of Alt No 06, but is a separate scope under this alternate in the event Alternate 06 is not accepted.

J. Alternate No. 10:

Alt No. 10: Clean exterior concrete ramps and walks at breezeways.

Description: The scope of work for this alternate shall include pressure washing and cleaning of the exterior on-grade concrete ramps, sidewalks, and other concrete areas located under and adjacent to the breezeways between the buildings (4 areas total). Clean concrete to building edges and to where the walks/ramps meet the University brick sidewalk systems.

K. Alternate No. 11: Carpet (Preferred Alternate)

Alternate No. 11: Provide basis of design carpet as noted in section 09 68 13 Tile Carpeting, and Finish Schedule.

L. Alternate No. 12: Exterior Face Brick (Preferred Alternate)

Base Bid: Bricks to be manufactured as listed in specification section 04 20 00 Unit Masonry, including Hanson Brick as an acceptable manufacturer. Bricks bid by other manufacturers must be equal to the basis of design "Morrocroft Special #02-79-1" in color, texture, finish, size etc.

Alternate No. 12: Face Brick to be Morrocroft Special #02-79-1 manufactured by Hanson Brick at www.hansonbrick.com (one available source in Charlotte is Brick Yard Limited). Installation shall comply with UNCC Std. Spec S02525.

M. Alternate No. 13: Fire Alarm System (Preferred Alternate)

Base Bid: Fire Alarm System to be manufactured as listed in Specification Section 28 31 11, Digital, Addressable Fire-Alarm System, including Simplex Grinnell as an acceptable manufacturer.

Alternate No. 13: Fire Alarm System to be Simplex Grinnell. The E.C. is to provide alternate pricing for a Simplex Grinnell fire alarm system that is compatible with the existing campus wide system.

N. Alternate No. 14: Auditorium Seats (Alternate)

Base Bid: Denny Rooms 120 and 122 to receive new swing away seating as listed in Spec Section 12 70 00 Swing Away Seat.

All other fixed seating to be removed and stored in a location approved by the Owner. All seating and tables to be documented by the Construction Manager for the condition prior to removal to include: 1) wear and tear and 2) proper working of condition. The CM is to propose a current value of the fixtures to the Owner for concurrence prior to removal. After the major parts of construction are completed, with the Owner's approval the existing fixtures to be reinstalled. In the event damage has occurred the Owner may elect one of the following:

- 1) Construction Manger fix the existing fixtures.
- 2) Construction Manger to provide a proposal to the Owner using the cost established by this Alternate to procure and install new seating, proposal to deduct the value of the existing fixtures as previously established.

Alternate 14: The scope of work for this alternate shall include the total replacement of all fixed seating in the auditorium classrooms, to be separated by cost per auditorium as follows:

- 1) Denny Room 109 – Price per Section 12 70 00 Swing Away Seat
- 2) Denny Room 111 – Price per Section 12 70 00 Swing Away Seat
- 3) Denny Room 200 – Price per Section 12 61 00 Fixed Audience Seating.
- 4) Denny Room 220 – Price per Section 12 70 00 Swing Away Seat

END OF SECTION