

**Addendum # 1 - UNCC Remembrance Memorial**  
SCO # 20-21775-01A, Code : 41926, Item 309

April 14, 2022

*This ADDENDUM is to be a part of the contract documents and modifies and takes precedence over the original bid documents, as noted below and in any attached documents. Original items of the plans and specifications that have been modified, amended, voided or suspended through previous addenda, shall remain in effect. It is the responsibility of the Bidder to notify and/or distribute this ADDENDUM to those sub-bidders who have received prints or digital files. The Bidder is to acknowledge receipt of this ADDENDUM in the space provided on the Bid Form.*

**BIDDING SCHEDULE CHANGES**

- The bid opening date has changed. Sealed proposals will be received by 3:00pm, **Wednesday, May 4, 2022**. The room where the bids will be opened and read will be confirmed in the final addendum.
- The final date for submitting questions has changed. Bidders' questions will be entertained in writing until 5:00pm, **Friday, April 22, 2022**.
- The date of the final addendum has changed. The final addendum will be issued **Wednesday, April 27, 2022**.

**ATTACHMENTS**

- Pre-bid Meeting Minutes and pre-bid presentation
- Pre-bid sign-in sheet
- Notice to Bidders (Revised via Addendum #1)
- Table of Contents (Revised via Addendum #1)
- Specification Section 011000 – Summary (Revised via Addendum #1)
- Specification Section 012300 – Alternates (Revised via Addendum #1)
- Specification Section 01400 – Quality Requirements (Revised via Addendum #1)
- Specification Section 051200 – Structural Steel Framing (Revised via Addendum #1)
- Specification Section 099000 – Painting (Added via Addendum #1)
- Form of Proposal (Revised via Addendum #1)
- University of North Carolina at Charlotte Remembrance Memorial - Plan Holders List

**DRAWING MODIFICATIONS**

- Sheet G000, REPLACE OPA-3, 4, and 5 with the following text in the Owner Preferred Alternate List:

- #OPA-3: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Primer, Carbomastic 15.
- #OPA-4: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Paint, Carboxane 2000.
- #OPA-5: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Clear Coat, Carbothane 134.
- Sheet LD100, revise Demolition Note #22:
  - “22. Blasting shall not be allowed.”
  - Additional payment will be provided for rock removal as outlined by unit prices and rock allowance.

## PROJECT MANUAL MODIFICATIONS

- REPLACE “Notice to Bidders” with “Notice to Bidders (Revised via Addendum #1)” attached herein.
  - Modification: On page 1, the bid date has been revised in the first paragraph as shown in red:
    - Sealed proposals will be received by the University of North Carolina at Charlotte, 9201 University City Blvd, Charlotte, NC 28223, at Cone University Center (building #5 on campus map <http://facilities.uncc.edu/maps>) in Cone 210 up to 3:00 pm, **Wednesday, May 4, 2022** and immediately thereafter publicly opened and read for the furnishing of labor, material, and equipment entering into the construction of the Remembrance Memorial.
  - Modification: On page 1, the final date for submitting questions has been revised as shown in red:
    - Bidders’ questions will be entertained in writing until 5:00 pm on **Friday, April 22, 2022**.
  - Modification: On page 1, the date the final addendum will be issued has been revised as shown in red:
    - A final addendum will be issued **Wednesday, April 27, 2022** to all plan holders/bidders of record.
- REPLACE “Table of Contents” with “Table of Contents (Revised via Addendum #1)” attached herein.
  - Modification: Section 099000 Painting under Division 09, Finishes was added in red.
- REPLACE “Specification Section 011000 – Summary” with “Specification Section 011000 – Summary (Revised via Addendum #1)” attached herein.
  - Modification: The following text was added in red under Article 1.6, Delegated Design:
    - “2. Submittal for all paints and painting methods for all plain steel.”

- REPLACE “Specification Section 012300 – Alternates” with “Specification Section 012300 – Alternates (Revised via Addendum #1)” attached herein.
  - Modification: Article 3.1 Schedule of Alternates, A. Owner Preferred Alternates: Items 3, 4, and 5 the word “NOT” was added in red :
    3. Owner Preferred Alternate #OPA-3: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Primer, Carbomastic 15.
    4. Owner Preferred Alternate #OPA-4: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Paint, Carboxane 2000.
    5. Owner Preferred Alternate #OPA-5: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Clear Coat, Carbothane 134.
  
- REPLACE “Specification Section 014000 – Quality Requirements” with “Specification Section 014000 – Quality Requirements (Revised via Addendum #1)” attached herein.
  - Modification: The following text was added in red:
    - 1.4 Delegated-Design Services
      - A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
        1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
  - Modification: The following text was added in red:
    - 1.6 ACTION SUBMITTALS
      - A. Shop Drawings: For mockups.
        1. Include plans, sections, and elevations, indicating materials and size of mockup construction.
        2. Indicate manufacturer and model number of individual components.
        3. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.
      - B. Delegated-Design Services Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

- REPLACE “Specification Section 051200 – Structural Steel Framing” with “Specification Section 051200 – Structural Steel Framing (Revised via Addendum #1)” attached herein.
  - Modification: The following text was added in red under Article 1.8, Quality Assurance:
    - D. Sample Connections: Build sample connections to verify selections made under sample submittals and to demonstrate aesthetic effects.
      - 1. Build sample connections for the following conditions in sizes approximately 24 inches (600 mm) long by 48 inches (1200 mm) high by full thickness:
        - a. Tube-to-tube welded connection at intersection.
        - b. T-Cable Holder connection.
      - 2. Sample connections are to show any welds, anchors, and painting required in the finished condition for approval by the Owner.
  - Modification: The following text was revised in red under Article 2.3, Primer:
    - A. Primer: Carboline Carbomastic 15.
- ADD “Specification Section 099000 – Painting (Added via Addendum #1)” attached herein.
- REPLACE “Form of Proposal” with “Form of Proposal (Revised via Addendum #1)” attached herein.
  - Modification: On page 2 of 6 under Owner Preferred Alternates, the word “NOT” was added in red to the following:
    - Owner Preferred Alternate #OPA-3: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Primer, Carbomastic 15.
    - Owner Preferred Alternate #OPA-4: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Paint, Carboxane 2000.
    - Owner Preferred Alternate #OPA-5: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Clear Coat, Carbothane 134.

**REQUESTS FOR INFORMATION WITH RESPONSES:**

No.	RFI QUESTION	RESPONSE
1	Request the date for deadline for submitting questions to design team be extended	Date has been extended to 5:00pm, Friday, April 22, 2022.
2	Vehicles allowed to park in work area?	There will be two parking passes provided for parking inside the construction fence.

3	Pavers: Replace existing pavers with new pavers and remove existing pavers from campus.	It is the Contractor's option to purchase all new pavers in lieu of reusing pavers salvaged from existing brick paver walks, although the existing pavers will still need to be salvaged for use by the University elsewhere.
4.	To extend hours for deliveries	The University will work with Contractors but be aware that although there will be fewer students on campus, summer school will be in session. There will be fewer classes, but actual daytime deliveries must be approved by UNCC. The project extends into the regular school calendars as well.
5.	Note #22 on Sheet LD100. Can this note be removed from drawings?	Note will be revised. Please refer to the Bid Proposal Form which includes an allowance of 100 CY for rock excavation, removal and disposal off site, as well as a unit price for Site Rock Excavation. See Specification Section 312000 – Earth Moving for description of extents of rock removal.
6.	Per the specifications that Polycor is called out as the granite material supplier and Mount Airy is the specified color. Coldspring Granite, (alternate supplier) has requested if the design team would accept their "Sierra White" as an ALTERNATE.	"Sierra White" is an acceptable alternate color.

**END OF BID ADDENDUM 01**

**UNCC Remembrance Memorial**

SCO # 20-21775-01A, Code : 41926, Item 309

Prebid Meeting Minutes  
April 13, 2022, 3:00 pm  
Cone University Center, Cone 112A

**1. Introductions:**

Key project personnel:

Elizabeth Frere, University Project Manager

Susan M. Hatchell, Susan Hatchell Landscape Architecture, PLLC

Sign-In sheet - attached

**2. Summary of Work/Project Scope:**

The project consists of the construction of the Remembrance Memorial structure, earthwork, planting and hardscape, water line relocation, storm drainage, irrigation, electrical work, and other Work indicated in the Contract Documents.

- Work under Separate Contract: Lighting, lighting controller, prisms, tension cables, and light programming for the Remembrance Memorial structure.
- Delegated Design Work:
  - Tension cable holders and brackets
  - Paint and painting methods for the plain steel of the Remembrance Memorial structure (only if Alternate #1 stainless steel is NOT selected)

**3. Project Schedule:**

Construction Period is 8 months, or 245 consecutive calendar days.

**4. Liquidated Damages:**

Liquidated Damages: \$500 for each day past the contract completion date.

**5. General Information and Logistics:**

- On-site staging and storage will be limited. Any additional space needed must be coordinated with the University.

- Parking on campus is limited. Parking permits are required through the University Parking and Transportation Services and will be issued through the University Construction Manager.
- The site access route is shown on Sheet G000-1. The Contractor shall use only the following roads on campus: Mary Alexander Rd. from Mallard Creek Church Rd. to Craver Rd. to Library Lane to South Library Lane to the construction entrance.
- Deliveries to the construction site shall be completed before 8:00 am or started after 6:00 pm Monday through Friday. If special or weekend deliveries are needed, they will need to be coordinated with the University.

## **6. Key Dates:**

Deadline for submitting questions to design team: Monday, April 18, 2022 (5:00 pm)

Last date bidders have to contact potential MBE Subcontractors: Monday, April 18, 2022 (5:00 pm)

Final Addendum Issued: Thursday, April 21, 2022

Bid Opening: Thursday, April 28, 2022 at 3:00 pm

Susan asked if there was a concern about the current bidding schedule. Attendees felt that the final day to ask questions (Monday, April 18) is too soon due to the Easter holiday.

**Firms that do not plan to attend the Bid Opening must deliver bids no later than 12:00 pm on Bid Day to Ms. Elizabeth Frere:**

Mailed Proposals:

Attn: Elizabeth Frere – Planning, Design and Construction  
 The University of North Carolina at Charlotte  
 Facilities Management – Planning, Design & Construction  
 9201 University City Blvd.  
 Charlotte, NC 28223-0001  
 (252) 341-2345

Or

Hand-Delivered:

Attn: Elizabeth Frere – Planning, Design and Construction  
 The University of North Carolina at Charlotte  
 Facilities Management/Campus Police Building (building #55 on [campus map](#))  
 2<sup>nd</sup> Floor – Planning, Design and Construction  
 9151 Cameron Blvd.  
 Charlotte, NC 28223  
 (252) 341-2345

## **7. Questions:**

All Questions shall be submitted in writing. Susan Hatchell Landscape Architecture, PLLC will provide responses in addenda to ensure bidders have equal access to the information.

Send questions to Susan Hatchell Landscape Architecture, PLLC via email:

Email: [jennifer@susanhatchell.com](mailto:jennifer@susanhatchell.com), cc [mindy@susanhatchell.com](mailto:mindy@susanhatchell.com)

Attn: Jennifer Steed

Subject line: UNCC Remembrance Memorial (your company name); BIDDER QUESTION

## **8. Product Substitutions:**

Refer to the Instructions to Bidders, 12. Substitutions (page 6)

- 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 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.
- If a proposed material, product, or equipment substitution is deemed equal by the Designer to those specified, all bidders of record will be notified by Addendum.
- Contractor has until April 18<sup>th</sup> to propose a substitution to the Designer.

## **9. Bid Proposals: Reference the documents in the Project Manual**

- Contractors are to make sure that the bid forms are filled out with both numerical numbers and the number written out.
- Fill in the costs for all alternates and unit prices.
- A Bid Bond of 5% is required with formal bid. No bid will be considered or accepted unless accompanied by this Bid Bond.
- A performance bond and a payment bond will be required for one hundred percent (100%) of the contract price once the bid is awarded.
- Addenda: It is the responsibility of each bidder to verify that all addenda have been received prior to submitting their bid.

## **10. Alternates:**

Owner Preferred Alternate No. OPA-1: Provide irrigation components manufactured by Toro as shown on plans.

Owner Preferred Alternate No. OPA-2: Provide resin bonded aggregate as shown on plans.

Owner Preferred Alternate No. OPA-3: If stainless steel is **not** selected per Alternate #1, provide Carboline Primer, Carbomastic 15.

Owner Preferred Alternate No. OPA-4: If stainless steel is **not** selected per Alternate #1, provide Carboline Paint, Carboxane 2000.



Owner Preferred Alternate No. OPA-5: If stainless steel is **not** selected per Alternate #1, provide Carboline Clear Coat, Carbothane 134.

Alternate No. 1: Provide stainless steel for the Remembrance Memorial Structure.

Alternate No. 2: Provide six (6) additional Pebble Benches.

Alternate No. 3: Provide sixteen (16) movable lounge seats.

Alternate No. 4: Provide and install an additional Memorial Message Sign.

#### **11. HUB Certified/Minority Business Participation:**

- Identification of HUB Certified/Minority Business Participation is required. Note the Guidelines for Recruitment and Selection of Minority Business.
- Include with the Bid Proposal the Identification of HUB Certified/Minority Business Participation forms. Fill out Affidavit A or B.
- There is a 10% minority participation goal as mandated by the State. Contact Dorothy Vick (HUB Coordinator with UNC Charlotte) if you wish to obtain a list of Qualified/HUB Certified contractors.

#### **“Good Faith Effort” Requirements**

Elizabeth presented the requirements.

#### **Remembrance Memorial Plan Slides**

Susan presented the slides.

#### **Open floor to Owner Comments:**

- The project is of extreme importance to the University. Its goal is to provide healing and a place of recovery for the students and families of those injured and lost on April 30, 2019 in Kennedy Hall. The structure is uplifting and will have lights that represent the night sky on April 30, 2019 that will glimmer. When touched, ripples of light will radiate upward. During the day, prisms will cut rainbows on the pavement below. Computer software will activate the lighting sequence. The pavement is a custom designed granite to represent the feeling of fracture after the tragedy. The plantings and berms are to enclose the space and create a tranquil respite and place of memory.
- **The University is eager to get construction started, so please email the Designer immediately if you do not plan to bid due to the bidding schedule.**

#### **Open floor to Questions:**

- What is the kind and color of the resin-bonded aggregate?
  - GeoPave EZFloat supplied by Complete Streets Inc. This is an Owner Preferred Alternate #OPA-2. Color is Sterling Silver or similar white and grey mix. Please refer to Specification 321540 – Crushed Stone Surfacing.
- Elizabeth can send out names of MBE firms, if requested.

- Laydown and trailer location – trailer is not required; it is up to the Contractor to decide if it will be needed.
- The University will provide a meeting room for project meetings.
- What is included in tree removals?
  - Contractor will need to grind and remove stump to a depth of 12” below surrounding proposed grade, remove from site and dispose of properly.
- Steel and granite may have long lead times. What if it takes six months?
  - The University could provide a letter of intent to allow a Contractor to order materials.
- What is the estimated project cost?
  - The overall budget is \$2 million dollars, but this is not the construction budget. The \$2 million dollar budget also includes design fees, contingencies, geotechnical testing, and other associated costs.
- Delegated design work is within the Contractor’s scope. The footings for the structure and the steel structure are within the Contractor’s scope.
- What is the anticipated start date?
  - Four to six weeks after the bid opening.
- Is it possible to extend hours for deliveries?
  - The University will work with Contractors but be aware that although there will be fewer students on campus, summer school will be in session. There will be fewer classes, but actual daytime deliveries must be approved by UNCC. The project extends into the regular school calendars as well.
- Campus service vehicles will also be in the area.
- On sheet LD100, note 22, Can note #22 be removed from drawings?
  - Note will be revised. Blasting is still not allowed, but please refer to the Bid Proposal Form which includes an allowance of 100 CY for rock excavation, removal, and disposal off site, as well as a unit price for Site Rock Excavation.
- Will brick pavers be saved or will new pavers be purchased?
  - It is the Contractor’s option to purchase all new pavers in lieu of reusing pavers salvaged from existing brick paver walks, although the existing pavers will still need to be salvaged for use by the University elsewhere.
- Are vehicles allowed to park in work area?
  - There will be two parking passes provided for parking inside the construction fence.
- There is a request to extend the deadline for submitting questions to the Designer.
  - The upcoming holiday is an issue.
  - **All potential bidders are encouraged to email your concerns about the bidding schedule to [jennifer@susanhatchell.com](mailto:jennifer@susanhatchell.com) ASAP.**

### Tour of Project Site

A tour of the project site followed the meeting.

**UNC Charlotte**  
**“Good Faith Effort” Requirements**  
**(Remembrance Memorial)**

This information is provided as a guide for firms who may be new to UNC Charlotte and may not be familiar with our expectations regarding minority business participation on University Managed Projects (UMP) projects. Bidders should be familiar with the ***Guidelines for Recruitment & Selection of Minority Businesses for Participation in University of North Carolina Construction Contracts*** as well as the applicable bid forms.

**The minority participation goal for this project is ten percent (10%) or better.**

**Identification of HUB Certified/Minority Business Participation form** – Only list minority firms that you will use as construction subcontractors, vendors, suppliers or professional service providers on this project. The bidder *cannot* list himself on this form as he cannot subcontract to himself. **Note:** This form must be submitted with your bid. As a minimum, the Company name must be listed at the top of the form and **\$ Zero** is listed in the field at the bottom of the page. Bidder’s do not have to list the name of the minority firms they plan on using on this form.

**Affidavit A – Listing of Good Faith Efforts** – the bidder is certifying that he has made a good faith effort to comply under those areas checked on the form. Do not check a Good Faith Effort item unless you can provide the following;

1. Contacting 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 or proposal date** and notifying them of the nature and scope of the work to be performed.

**Example:** Copies of written (emailed or faxed) notification to minority businesses and copies of quotes/proposals received for work solicited to minority businesses. Notification should include, at a minimum, project location, location where plans and specifications may be obtained or viewed, list of the scopes of work for which subcontracts are being solicited, contact person within the prime contractor’s organization.

***Be sure to maintain a telephone log to confirm that minority firms received your Invitation for Bid (IFB)/Request For Quotes (RFQ).*** The log should contain the date contacted, telephone number, and name of the individual representing the minority firm who acknowledged receipt of your IFB/RFQ. ***Also maintain a telephone log to confirm that minority firms acknowledged a “bid/no bid” to your IFB/RFQ.*** 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/RFQ.

2. Making 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 bid or proposals are due.

Copies of written (emailed or faxed) notification to minority businesses should include, at a minimum, project location, location where plans and specifications may be obtained or viewed, list of the scopes of work for which subcontracts are being solicited, contact person within the prime contractor’s organization.

3. Breaking down or combining elements of work into economically feasible units to facilitate minority participation.

Document steps taken to segment elements of work into economically feasible units to meet minority business availability. Identify sub-contractors/suppliers/consultants and scopes of work involved in segmenting.

Be sure that you are soliciting quotes from **at least three (3) minority firms** in scopes of work that typically have adequate numbers of minority firms available that can perform the work required (hauling,

concrete, flooring, masonry, painting, electrical suppliers, etc.). Do not solicit quotes from minority firms in those scopes of work that typically do not have minority firms available that can perform the work required (elevators, fire suppression systems, roofing, etc.). If there are minority firms that you typically use on your projects then by all means, feel free to use them, if you are sure you are receiving reasonable pricing and quality work.

4. Working with minority trade, community or contractor organization identified by the Office for Historically Underutilized Businesses (HUB) and included in the bid documents that provide assistance in the recruitment of minority businesses. **Note 1:** Posting of your bid to Minority plan rooms does not satisfy this requirement. **Note 2:** Working with the UNC Charlotte HUB Coordinator does not satisfy this requirement.

Be able to provide a copy of meeting minutes and/or emails between the prime contractor and minority trade, community or contractor organization. At minimum the following topics should be discussed/reviewed during the meeting: project location; location where plans and specifications may be obtained or viewed; scopes of work for which subcontracts are being solicited; bonding requirements; insurance requirements; prime contractor's contact person; minority trade, community or contractor organization contact person; strategies to segment elements of the work into economically feasible units to meet minority business availability; strategies to increase minority business utilization through joint ventures and/or partnerships.

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

5. Attending any pre-bid meetings scheduled by the public owner.  
Attendance will be verified by conference sign-in sheet.
6. Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors.  
Have documentation describing the type of assistance provided or offered to minority businesses. Provide names and contacts of minority businesses to which assistance was offered and names of the contact person of bonding companies or financial institutions offering assistance.  
**Be sure to mention that 'assistance with bonding and/or insurance will be provided'** in your IFB/RFQ.
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.  
Document the number of bids received from minority businesses in the trade or scopes of work for which subcontracts are being solicited, the number of minority businesses that submitted low bids or proposals, the number of minority businesses the bidder has offered to negotiate prices or services, and the number of minority businesses the bidder has agreed to utilize on the project, outline steps taken.
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 or assisting minority businesses in obtaining the same unit pricing with the bidder's supplier.  
Document names, addresses and telephone numbers of minority businesses to which assistance was offered, outline steps taken. Give dates assistance was offered and document outcome.  
**Be sure to mention that 'assistance with equipment, loan capital, lines of credit or joint pay agreements to secure loans, supplies, or letters of credit will be provided'** in your IFB/RFQ.

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.  
Provide a copy of joint venture or partnership arrangements between bidder and minority businesses.
10. Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

**Be sure to mention that 'quick pay agreements will be provided to assist contractors with cash-flow demands' in your IFB.** Do not include stipulations that require the contractor to prove they need the quick pay. Net 30 or 45 is not quick pay.  
Be able to provide a copy of quick pay agreements and/or policies and document the number of minority businesses that will utilize the quick pay agreement. Provide a copy of the quick pay agreement signed between bidder and minority businesses.  
**Quick Pay will be paid whether or not the bidder has been paid or the Owner has approved the minority subcontractor's work.**

**Note: Referencing the Good Faith Efforts listed above in your IFB is not enough. You must be able to document your efforts.**

**Affidavit B – Intent to Perform Contract with Own Workforce** – In making this certification the bidder is stating that he 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 own current workforce. The bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible. **“Self-performing”** means the contractor has all equipment, personnel and supplies on hand to perform the contract. If the contractor needs to purchase supplies or rent equipment and operators to perform the work, then the contractor **is not** self-performing and should make efforts to purchase supplies or equipment, or temporary labor from minority firms. **Note:** No other Affidavits are required if the bidder meets this criteria.

**Affidavit C – Portion of the Work to be Performed by HUB Certified/Minority Businesses** – This form is to be submitted only by the apparent lowest responsible, responsive bidder with equal to or greater than 10% minority participation.

**Affidavit D – Good Faith Efforts** – This form is to be submitted only by the apparent lowest responsible, responsive bidder with less than 10% minority participation along with their backup documentation. **Note:** Backup documentation will be provided for any Good Faith Effort item indicated on the bidder's Affidavit A form.

**Minority-owned Pre-qualified Bidders** – **must also** meet the minority participation goals set for the project. Work performed by the minority-owned pre-qualified bidder will be counted towards the minority participation goal **only if** the minority contractor is **self-performing** and submitted Affidavit B.

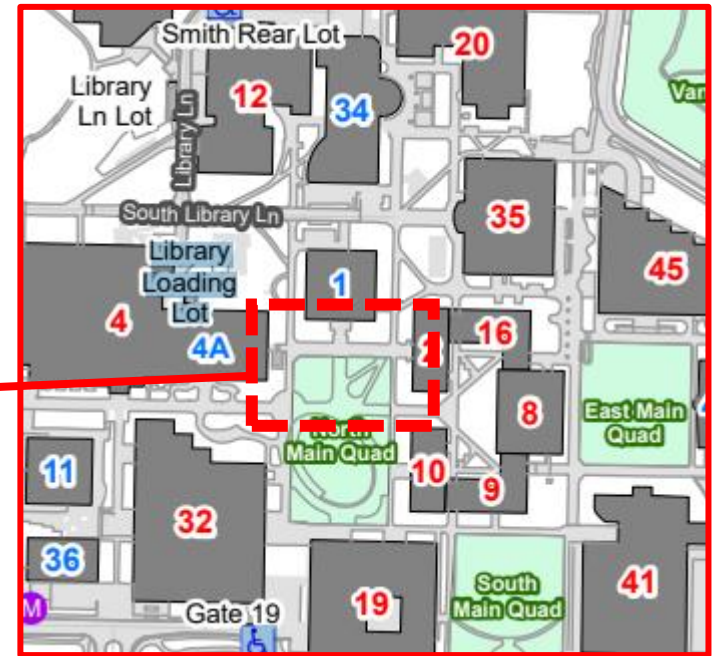
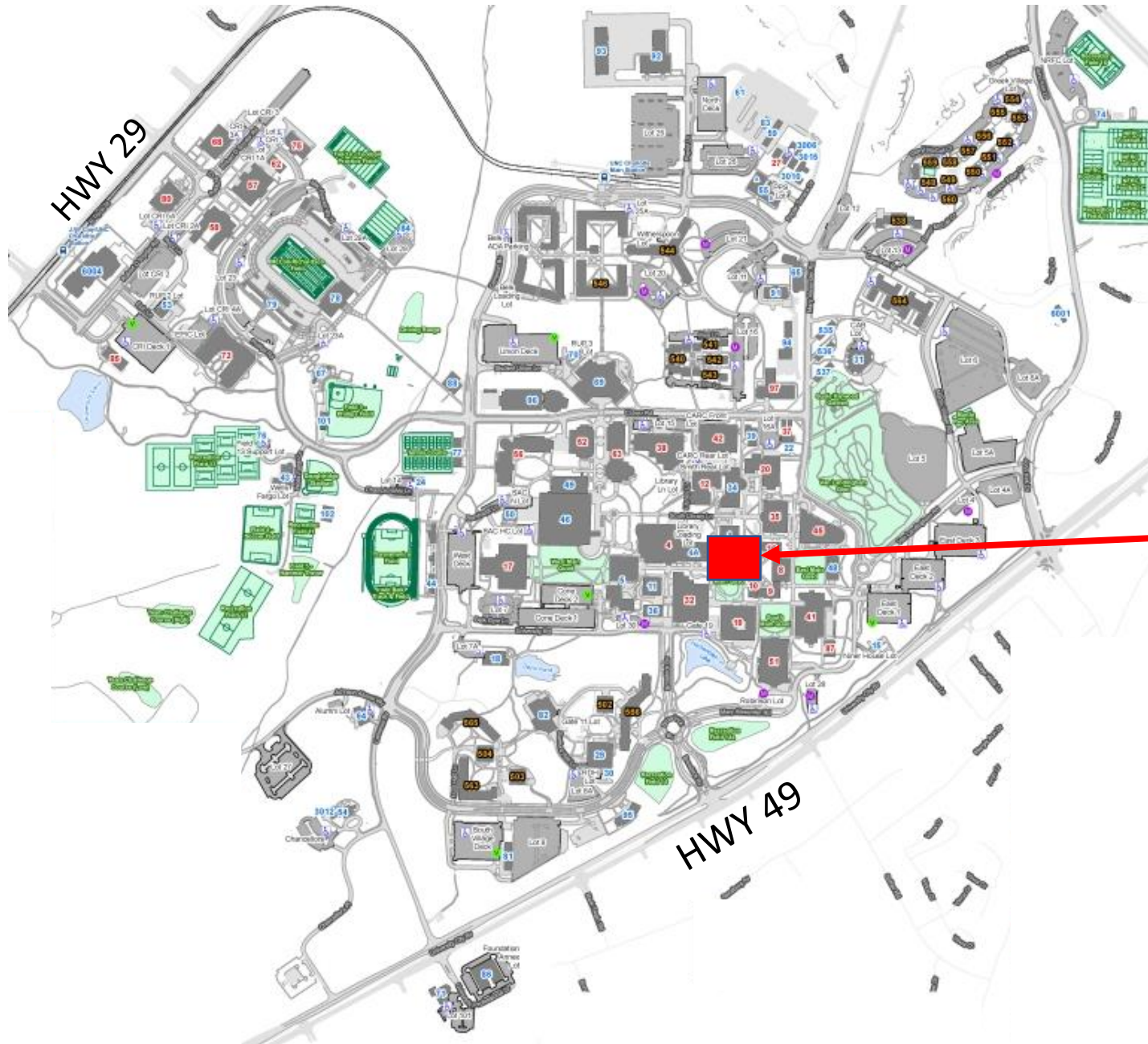
**Certification Requirements** – Ensure the minority firms you contact for subcontracting opportunities are listed in the Statewide Uniform Certification (SWUC) Vendor database as **only firms** listed in the SWUC Vendor database, at the time of contract award, **will be counted** towards the minority participation goal for this project. Go to <https://www.ips.state.nc.us/Vendor/searchvendor.aspx?t=h> for access to the SWUC Vendor database.



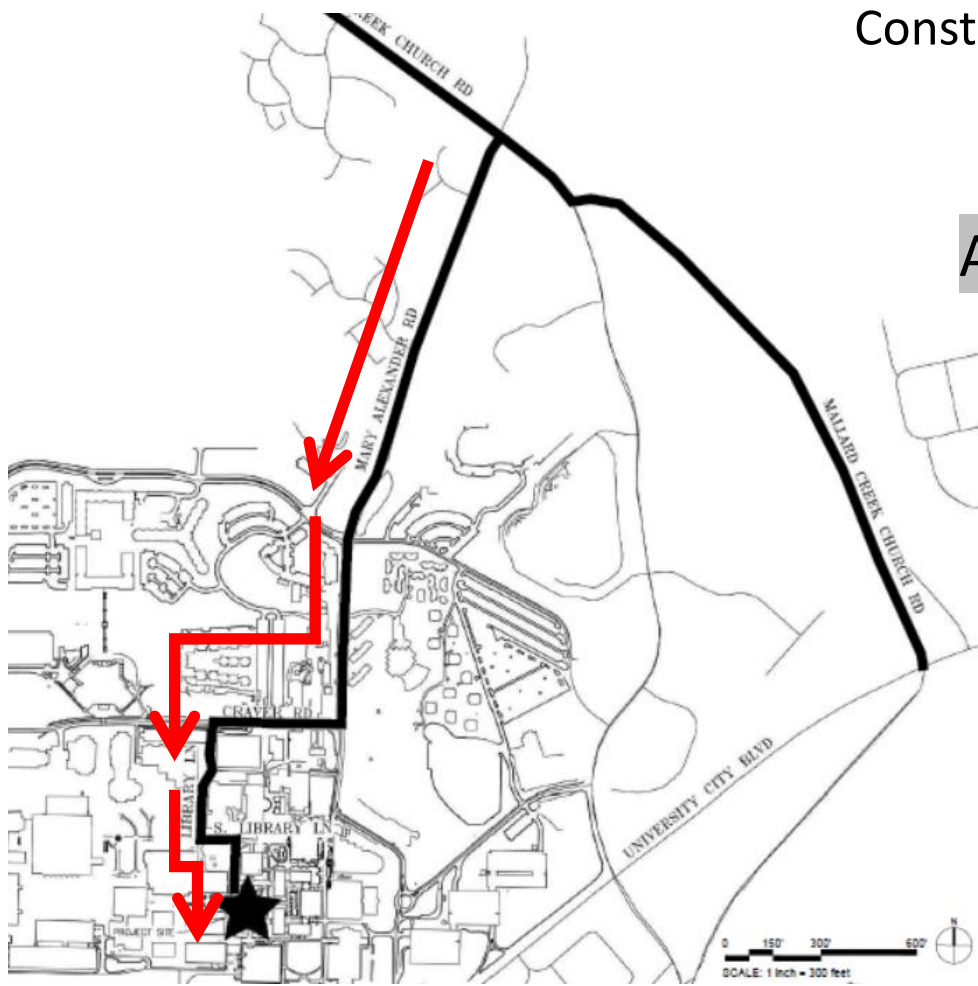
**CHARLOTTE**



**REMEMBRANCE MEMORIAL**

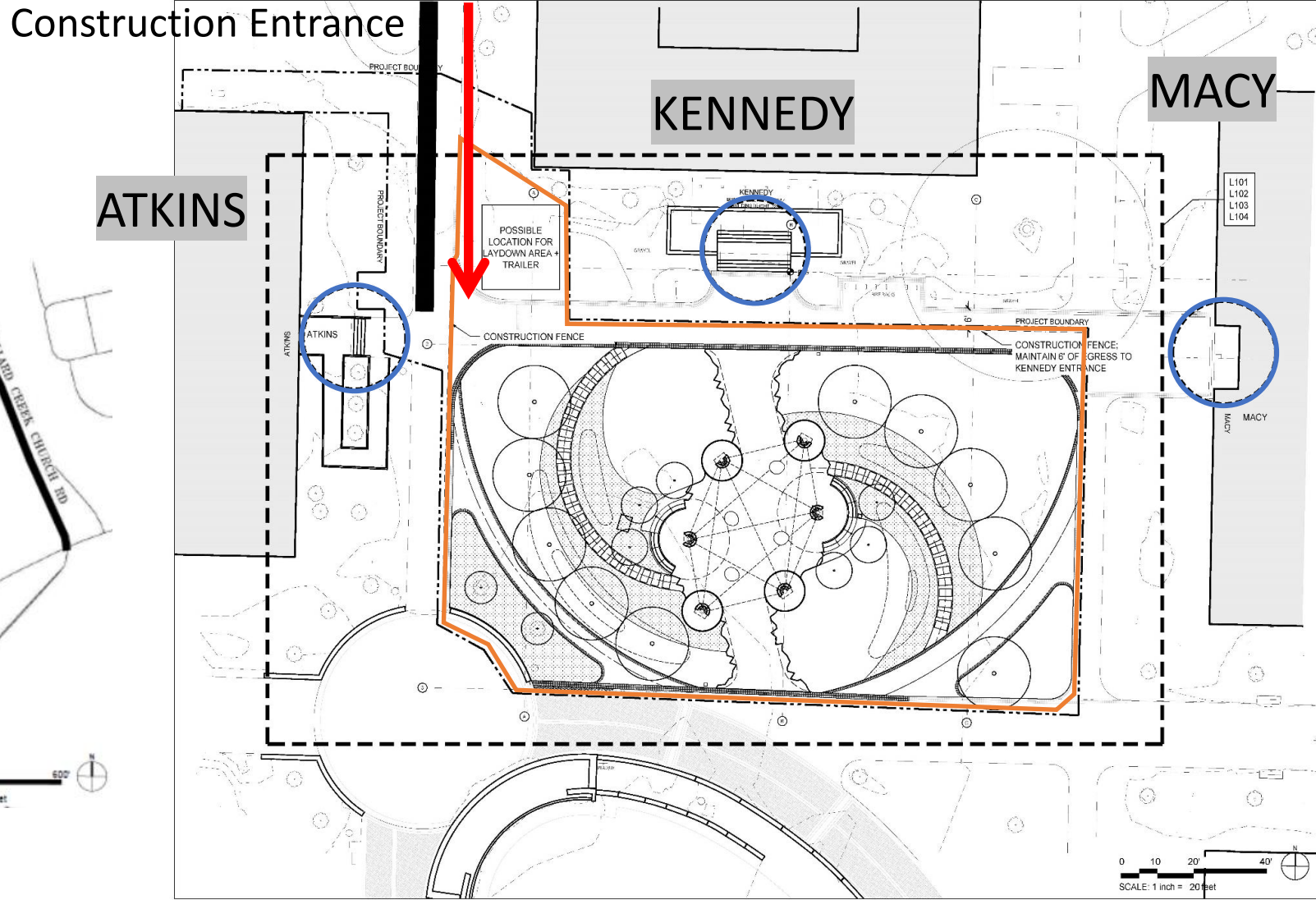


PROJECT LOCATION



**Site Access Route:**

Mallard Creek Church Rd. to Mary Alexander Rd. to Craver Rd. to Library Lane to South Library Lane to the construction entrance



2 SITE REFERENCE PLAN  
SCALE: 1/20

**LEGEND**

-  CONSTRUCTION SITE ACCESS
-  PEDESTRIAN ACCESS POINTS TO REMAIN OPEN
-  CONSTRUCTION FENCE



# Existing Conditions + Demo Plan



EXISTING IRRIGATION MAINLINE MUST REMAIN. CONTRACTOR TO FIELD VERIFY LOCATION PRIOR TO ANY DEMOLITION.

REMOVE PATH TO EXISTING MIDDLE HEADER COURSE; VERIFY EDGE WITH LANDSCAPE ARCHITECT PRIOR TO DEMOLITION

REMOVE EXISTING STORM STRUCTURE

REMOVE BOULDERS

APPROXIMATE LOCATION OF EXISTING 1-1/2" IRRIGATION MAINLINE TO REMAIN. CONTRACTOR TO VERIFY LOCATION AND NOTIFY LA AND OWNER. RELOCATE ISOLATION VALVE FOR IRRIGATION EXPANSION IN THE PROJECT AREA.

CAP EXISTING 6" WATERLINE. PROVIDE RODDING. REFER TO CIVIL FOR WATERLINE REMOVAL.

PROTECT EXISTING ISOLATION VALVE

PROTECT EXISTING LIGHTPOLE AND ELECTRICAL VAULT.

POSSIBLE LOCATION FOR LAYDOWN AREA + TRAILER

KENNEDY

ATKINS

CRITICAL ROOT ZONE OF BONNIE CONE OAK: NO ENCROACHMENT OR MATERIAL STAGING WITHIN THIS ZONE

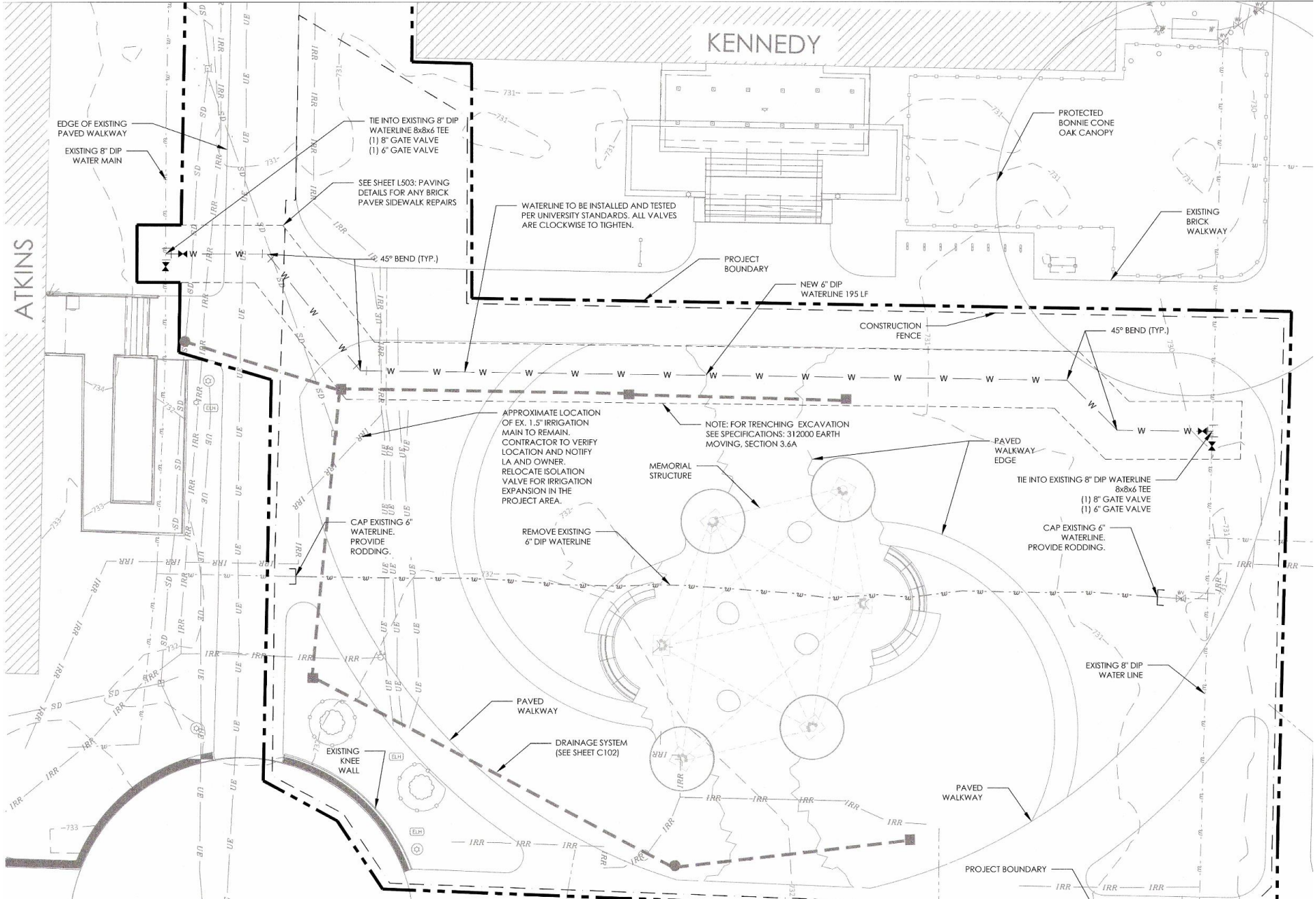
EXISTING SIGN TO BE REMOVED AND RELOCATED. COORDINATE STORAGE AND REINSTALLATION WITH UNCC

CAP EXISTING 6" WATERLINE, PROVIDE RODDING. REFER TO CIVIL FOR WATERLINE REMOVAL.

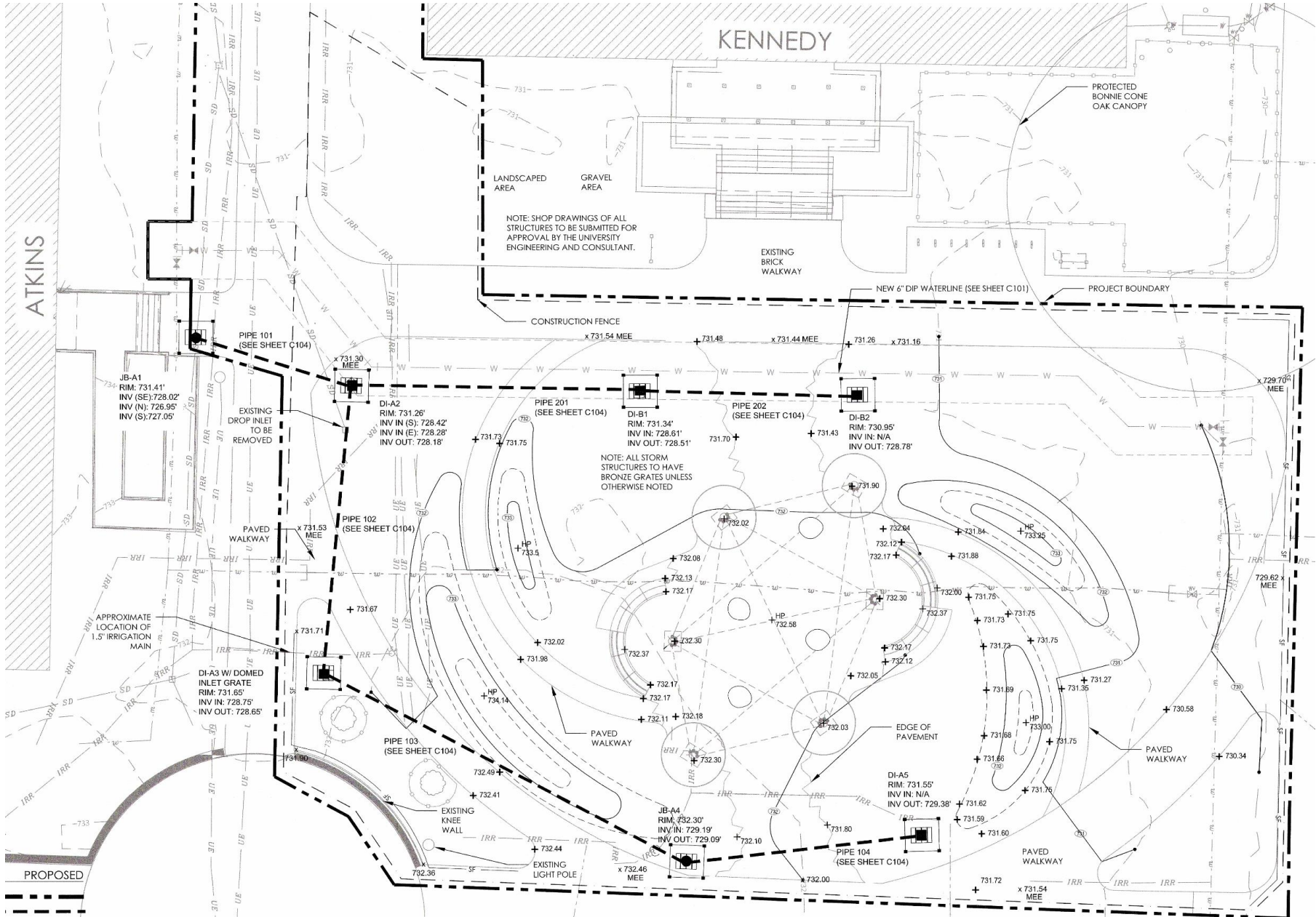
EXISTING SINGLE SOLDIER COURSE

DATE: 08/24/2024  
 DRAWN: C-PP-225-0  
 REV: 225-1  
 CWP: 2406

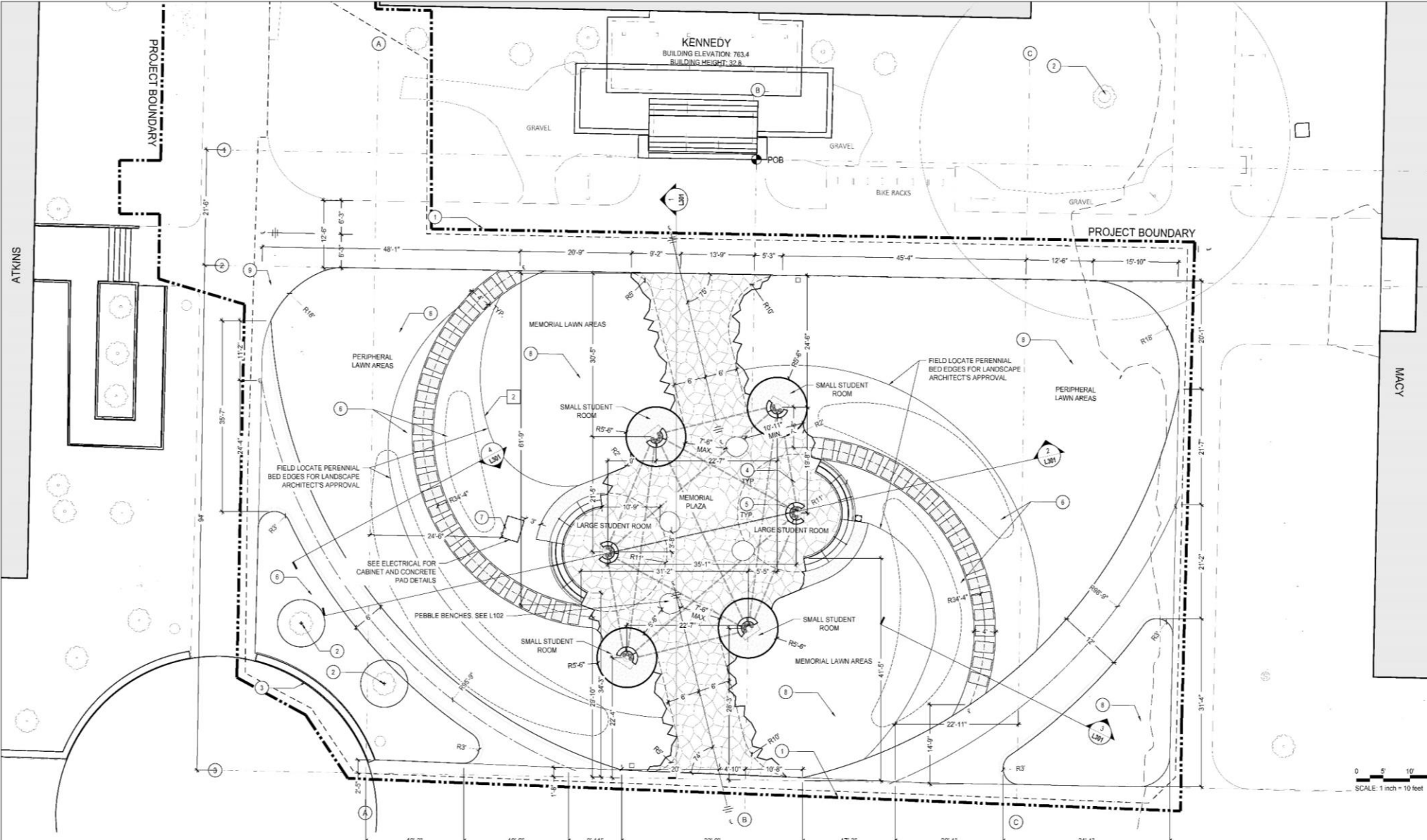
# Utility Plan



# Grading and Drainage Plan

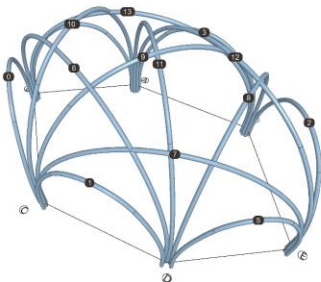


# Site Layout Plan



# Memorial Structure

**KEY**



**NOTE**  
OUTER TUBES (#0 THROUGH #5) ARE FREESTANDING  
INNER TUBES (#6 THROUGH #13) INTERSECT WITH ONE OTHER TUBE  
TUBE PAIRINGS ARE SHOWN IN THE FOLLOWING DRAWINGS.

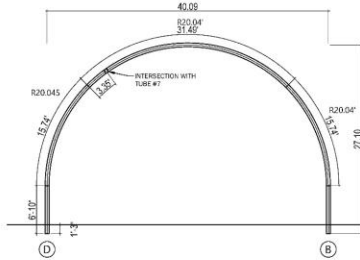
**TOLERANCE NOTE**

- ALL LINEAR AND ARC TOLERANCES  $\pm 1/32$  INCHES
- ALL RADIUS TOLERANCES  $\pm .5$  INCHES

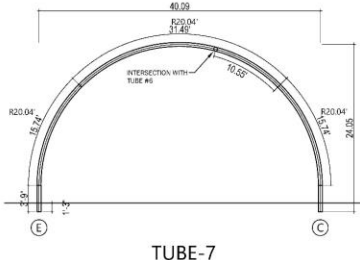
**STRUCTURAL ENGINEER STAMP**  
COVERS THE FOLLOWING:  
STRUCTURAL STEEL TUBE  
ELEVATIONS, DIMENSIONS AND  
PENETRATIONS FOR WIRING  
(STAINLESS STEEL FOR  
ALTERNATE MATERIAL).  
REFERENCE STRUCTURAL  
ENGINEER DRAWINGS FOR  
ADDITIONAL INFORMATION.  
DELEGATED DESIGN IS FOR OTHER  
ELEMENTS SHOWN AND NOT  
COVERED UNDER THIS STAMP.

**TUBE 6 & 7 PAIR**

**TUBE 6**

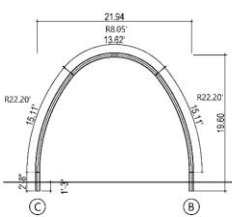


**TUBE 7**

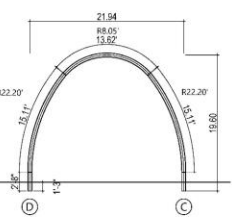


**TUBES 0 THROUGH 3  
(FREESTANDING AND IDENTICAL)**

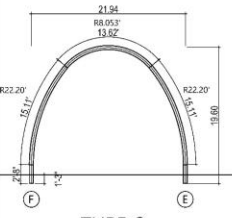
**TUBE 0**



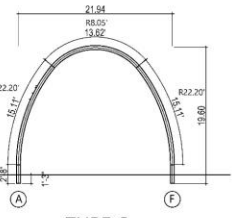
**TUBE 1**



**TUBE 2**



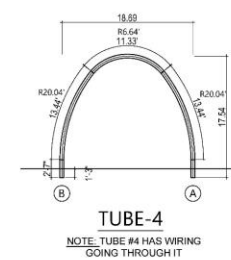
**TUBE 3**



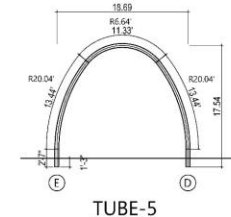
**NOTE: TUBE #3 HAS WIRING GOING THROUGH IT**

**TUBES 4 & 5  
(FREESTANDING AND IDENTICAL)**

**TUBE 4**



**TUBE 5**



**TENXTEN**  
LANDSCAPE ARCHITECTURE + URBANISM  
575 9th St. Suite 210  
Minneapolis, MN 55414  
tel: 612.440.8360

**Susan Hatchell**  
Landscape Architecture, PLLC  
711 W. North Street, Raleigh, NC 27603  
p: 919-838-9600 f: 919-838-9700

**HYPERSONIC**  
16-B Waverly Avenue  
Brooklyn, NY 11205  
347-868-6450 info@hypersonic.cc

**REMEMBRANCE MEMORIAL**  
University of North Carolina at Charlotte  
9201 University City Blvd.  
Charlotte, NC 28223

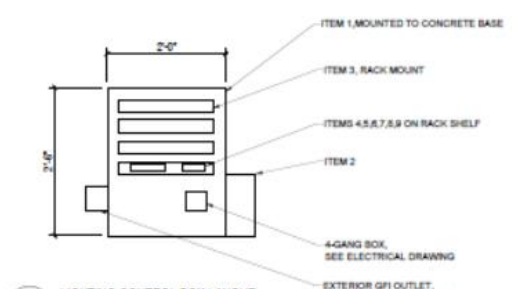
SCC# 20-21775-01A CODE: 41926 ITEM: 309

**Structure Tube Dimensions**

**L601**

# Work under Separate Contract:

Lighting, lighting controller, prisms, tension cables, and light programming for the Remembrance Memorial structure



**1 LIGHTING CONTROL BOX LAYOUT**  
SCALE: NTS

ITEM	PART NUMBER	DESCRIPTION	VENDOR	QTY
1	13856	ENCLOSURE, 30 X 24 X 24	BISON	1
2	IQ1000V	HVAC UNIT	ICE QUBE	1
3	SPDS-480-CA-24	CK POWER SUPPLY	COLOR KINETICS	3
4	EISK8-GT	ETHERNET SWITCH	CONT. CONTROLS	1
5	EPC-S101	COMPUTER	ADVANTECH	1
6	DAAD1CM24	AC TIMER RELAY	DIGIKEY	3
7	ADU208	USB I/O INTERFACE	ONTRACK	1
8	STP120P07M	SURGE PROTECTOR	ALLIED ELEC.	5
9	HEP-240-24A	POWER SUPPLY, 24VDC	MEAN WELL	2
10	EK4136S	PHOTOCELL	INTERMATIC	1

**ENCLOSURE COMPONENT SCHEDULE**

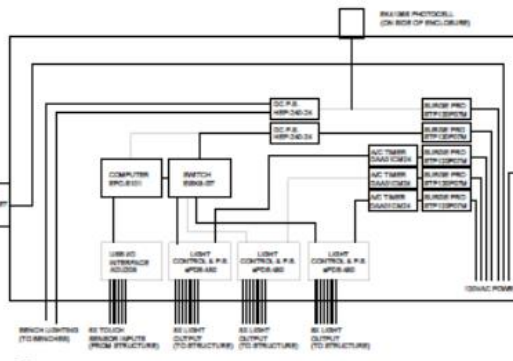
**LEGEND:**

- T&L TUBE LABEL - SEE A-100 AND STRUCTURAL FOR DETAILED DIMS.
- X COLUMN LABEL - SEE STRUCTURAL FOR FINAL LOCATIONS
- TOUCH SENSOR (SEE DETAIL 95803)
- WIRING HOLE PENETRATION

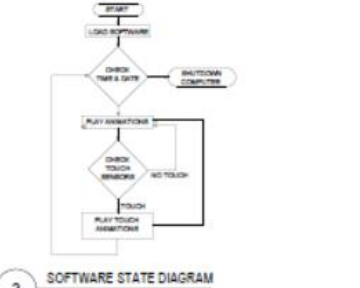
**NOTES:**

- SEE STRUCTURAL DRAWINGS FOR FINAL DIMENSIONS AND SPECIFICATIONS

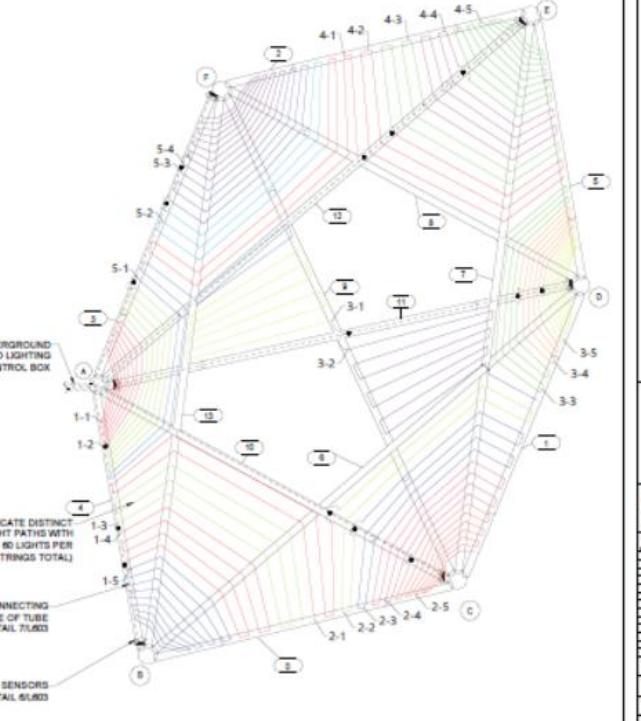
**2 LIGHTING CONTROL BOX WIRING DIAGRAM**  
SCALE: NTS  
LIGHTING CONTROL BOX ELEVATION - LOOKING WEST



**3 SOFTWARE STATE DIAGRAM**  
SCALE: NTS



**4 WIRING PATH FLOOR PLAN SHOWING STRING LIGHTS**  
SCALE: 1/8" = 1'-0"



**STRING LIGHT SCHEDULE**

LABEL	CONDUIT NO. - TAG	CABLE LENGTH (FT)
1	1-1	72.85
2	1-2	83.91
3	1-3	77.03
4	1-4	73.03
5	1-5	81.85
6	2-1	72.57
7	2-2	60.23
8	2-3	73.90
9	2-4	74.39
10	2-5	66.30
11	3-1	68.42
12	3-2	86.42
13	3-3	80.41
14	3-4	73.83
15	3-5	32.61
16	4-1	79.70
17	4-2	74.79
18	4-3	62.70
19	4-4	70.86
20	4-5	85.56
21	5-1	71.69
22	5-2	63.23
23	5-3	73.62
24	5-4	86.82

**FOR REFERENCE ONLY, TO BE COMPLETED BY OTHERS**

**REMEMBRANCE MEMORIAL**  
University of North Carolina at Charlotte  
9201 University City Blvd.  
Charlotte, NC 28223

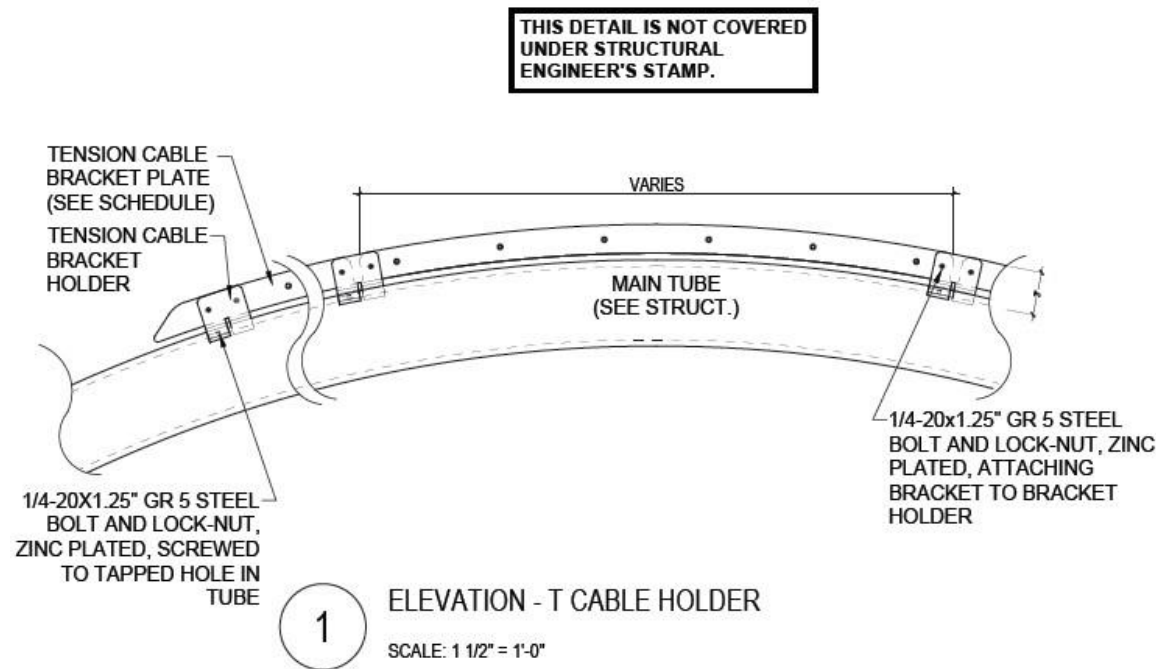
SCO# 20-21775-01A CODE: 41926 ITEM: 309

Structure Electrical Details

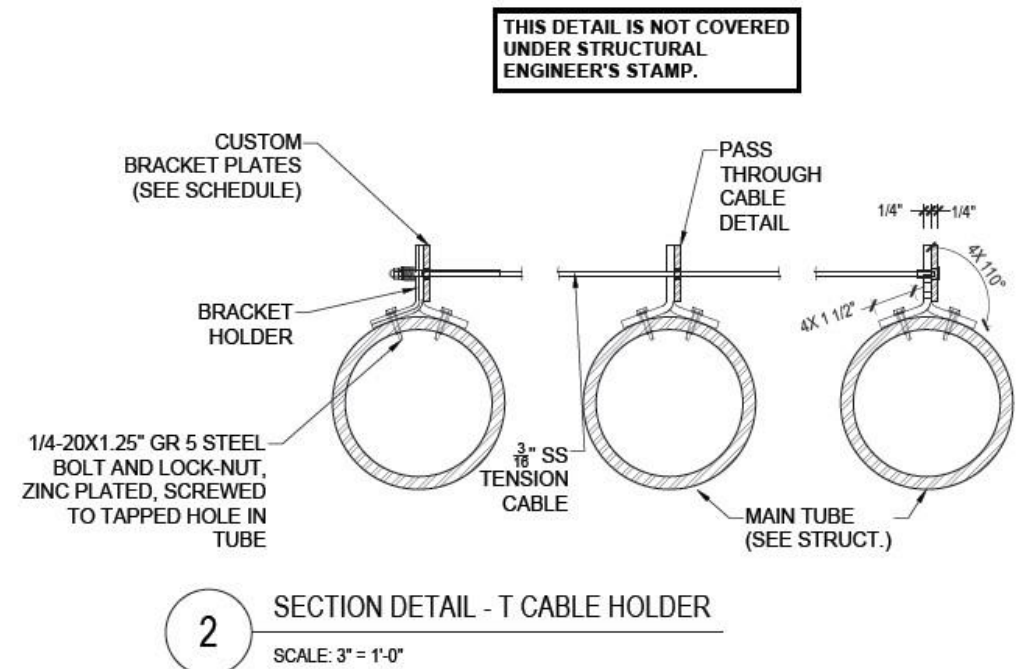
**L610**

# Delegated Design Work Includes:

- Tension cable holders and brackets
- Paint and painting methods for the plain steel of the Remembrance Memorial structure (only if Alternate #1 is NOT selected)



DELEGATED DESIGN, TO BE COMPLETED BY CONTRACTOR. SEE SPECS.



DELEGATED DESIGN, TO BE COMPLETED BY CONTRACTOR. SEE SPECS.

**UNC-Charlotte Remembrance Memorial  
 Pre-Bid Meeting Sign-in Sheet for April 13, 2022**

NAME	FIRM / ORGANIZATION	HUB Certified?	ADDRESS	PHONE	EMAIL ADDRESS
Thomas Horton	Unit Paving Incorporated	NO	8123 Charlotte Hwy Suite 200 Fort Mill, SC 29707	704-361-9003	<a href="mailto:thorton@unitpaving.com">thorton@unitpaving.com</a>
Katelyn Lewis	Locke-Lane Construction, Inc.	YES	5063 Taylorsville Hwy Stony Point, NC 28678	704-585-6625	<a href="mailto:klewis@locklaneconstruction.com">klewis@locklaneconstruction.com</a>
Ron Warren	Heartland Contracting, LLC	YES	1064 Van Buren Ave., Suite 8 Indian Trail, NC 28079	704-882-3004	<a href="mailto:rwarren@heartlandnc.com">rwarren@heartlandnc.com</a>
Steve Jackson	Draw Enterprises, Inc.	NO	8100 Wilkinson Blvd #105 Charlotte, NC 28214	704-309-3454	<a href="mailto:steve@drawenterprises.com">steve@drawenterprises.com</a>
Mayank Misra	I. L. Long Construction Company, Inc.	NO	4117 Indiana Ave Winston-Salem, NC 27105	336-661-1887	<a href="mailto:rcollins@illong.com">rcollins@illong.com</a> <a href="mailto:mmisra@illong.com">mmisra@illong.com</a>
Keith Morrison	Draw Enterprises, Inc.	NO	8100 Wilkinson Blvd #105 Charlotte, NC 28214	704-309-3442	<a href="mailto:keith@drawenterprises.com">keith@drawenterprises.com</a>
Elizabeth Frere	University of North Carolina at Charlotte	N/A	9201 University City Blvd. Charlotte, NC 28223	252-341-2345	<a href="mailto:efrere@uncc.edu">efrere@uncc.edu</a>
Susan Hatchell	Susan Hatchell Landscape Architecture, PLLC	YES	711 W. North St. Raleigh, NC 27603	919-838-9600	<a href="mailto:susan@susanhatchell.com">susan@susanhatchell.com</a>
John Hatchell	Susan Hatchell Landscape Architecture, PLLC	YES	711 W. North St. Raleigh, NC 27603	919-838-9600	<a href="mailto:susan@susanhatchell.com">susan@susanhatchell.com</a>

1.) Susan Hatchell Landscape Architecture, PLLC called contractors to confirm Firm Name, Street address and Email contact information.

2.) Susan Hatchell Landscape Architecture, PLLC researched HUB certification via State of North Carolina Office for Historically Underutilized Businesses website to confirm HUB status - <https://www.ips.state.nc.us/vendor/searchvendor.aspx?t=h>.



# NOTICE TO BIDDERS

## (Revised via Addendum #1)

Sealed proposals will be received by the University of North Carolina at Charlotte, 9201 University City Blvd, Charlotte, NC 28223, at Cone University Center (building #5 on campus map <http://facilities.uncc.edu/maps>) in Cone 210 up to 3:00 pm, Wednesday, May 4, 2022 and immediately thereafter publicly opened and read for the furnishing of labor, material, and equipment entering into the construction of

### Remembrance Memorial

The project consists of the construction of the Remembrance Memorial structure, landscape and hardscape, utility relocation, and other Work indicated in the Contract Documents.

Bids will be received for single prime. All proposals shall be lump sum.

### Pre-Bid Meeting

An open pre-bid meeting will be held for all interested bidders on Wednesday, April 13, 2022 at 3:00 pm at Cone University Center in Cone 112A (building #5 on campus map <http://facilities.uncc.edu/maps>). The meeting will address project specific questions, issues, bidding procedures and bid forms. There are visitor parking spaces in the Cone Deck 2 at 8921 University Rd, Charlotte NC 28223.

Bidders' questions will be entertained in writing until 5:00 pm on **Friday, April 22, 2022**. Email all questions to the designer, Susan Hatchell Landscape Architecture, PLLC – Attn: Jennifer Steed, [jennifer@susanhatchell.com](mailto:jennifer@susanhatchell.com). Emails shall have the subject line as follows: "UNCC Remembrance Memorial; (your company name); BIDDER QUESTION." Include your company name, contact information, email addresses, and phone numbers in the body of your email. Please cc: [mindy@susanhatchell.com](mailto:mindy@susanhatchell.com)

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

*In accordance with GS133-3 and SCO procedures the following preferred brand items are being considered as Alternates by the owner for this project:*

- A. Owner Preferred Alternate OPA-1: Irrigation components manufactured by Toro
- B. Owner Preferred Alternate OPA-2: Resin Bonded Aggregate
- C. Owner Preferred Alternate OPA-3: Carboline Primer, Carbomastic 15
- D. Owner Preferred Alternate OPA-4: Carboline Paint, Carboxane 2000
- E. Owner Preferred Alternate OPA-5: Carboline Clear Coat, Carbothane 134

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

A final addendum will be issued **Wednesday, April 27, 2022** to all plan holders/bidders of record.

Complete plans, specifications and contract documents will be open for inspection at the following **by appointment only**:

Susan Hatchell Landscape Architecture, PLLC  
711 W. North Street  
Raleigh, NC 27603  
Tel: (919) 838-9600

Electronic plans, specifications and contract documents are available at the following:

1. Susan Hatchell Landscape Architecture, PLLC. – Jennifer Steed – [jennifer@susanhatchell.com](mailto:jennifer@susanhatchell.com), (919) 838-9600
2. Construct Connect at [content@constructconnect.com](mailto:content@constructconnect.com), (800) 364-2059
3. North Carolina Offices of Dodge Data & Analytics (formerly McGraw-Hill Construction) – Customer Service – <http://dodgeprojects.construction.com>, (800) 393-6343
4. Metrolina Minority Contractors Association (MMCA) – [mmca@mmcaofcharlotte.org](mailto:mmca@mmcaofcharlotte.org), (877) 526-6205

Hard copies of the contract documents may be purchased from Duncan-Parnell (900 S McDowell Street, Charlotte, NC 28204) for about one-hundred and seventy-five dollars (\$175). Contact Duncan Parnell for instructions – [michaela.bruinius@duncan-parnell.com](mailto:michaela.bruinius@duncan-parnell.com), (704) 526-1856.

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 Building Contractor with an unlimited license required by the NC General Contractors Licensing Board under G.S. 87-1.

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. EXCEPT: On public buildings being bid single prime, where the total value of the general construction does not exceed 25% of the total construction value, contractors under GS87- Arts 2 and 4 (Plumbing, Mechanical & Electrical) may bid and contract directly with the Owner as the SINGLE PRIME CONTRACTOR and may subcontract to other properly licensed trades. [GS87-1.1- Rules .0210](#)

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.

A performance bond and a payment bond will be required for one hundred percent (100%) of the contract price.

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 thirty (30) days.

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

Bidders who will not attend the Bid Opening need to ensure their sealed bids are delivered no later than 12:00 pm bid day to the following:

Mailed Proposals:

Attn: Elizabeth Frere – Planning, Design and Construction  
The University of North Carolina at Charlotte  
Facilities Management – Planning, Design & Construction  
9201 University City Blvd.  
Charlotte, NC 28223-0001  
(252) 341-2345

Or

Hand-Delivered:

Attn: Elizabeth Frere – Planning, Design and Construction  
The University of North Carolina at Charlotte  
Facilities Management/Campus Police Building (building #55 on [campus map](#))  
2<sup>nd</sup> Floor – Planning, Design and Construction  
9151 Cameron Blvd.  
Charlotte, NC 28223  
(252) 341-2345

Designer:

Susan Hatchell Landscape Architecture, PLLC  
711 W. North Street  
Raleigh, NC 27603  
(919) 838-9600

Owner:

University of North Carolina at Charlotte  
Facilities Management – Planning Design &  
Construction  
9201 University City Blvd  
Charlotte, NC 28223-0001  
(252) 341-2345

**INTENTIONALLY LEFT BLANK**

## **TABLE OF CONTENTS (REVISED VIA ADDENDUM #1)**

### **Division 00 Procurement and Contracting Requirements**

Professional Seals  
Notice to Bidders  
Table of Contents  
Instruction to Bidders and General Conditions of the Contract  
Supplemental General Conditions  
Guidelines for Recruitment and Selection of Minority Businesses for  
Participation in University of North Carolina Construction Contracts  
UNC Charlotte "Good Faith Effort" Requirements  
Geotechnical Report

### **Division 01 General Requirements**

Section 011000 Summary  
Section 012100 Allowances  
Section 012200 Unit Prices  
Section 012300 Alternates  
Section 012500 Substitution Procedures  
Section 012600 Contract Modification Procedures  
Section 012900 Payment Procedures  
Section 013100 Project Management and Coordination  
Section 013200 Construction Progress Documentation  
Section 013233 Photographic Documentation  
Section 013300 Submittal Procedures  
Section 014000 Quality Requirements  
Section 014200 References  
Section 015000 Temporary Facilities and Controls  
Section 015639 Temporary Tree and Plant Protection  
Section 016000 Product Requirements  
Section 017300 Execution  
Section 017419 Construction Waste Management and Disposal  
Section 017700 Closeout Procedures  
Section 017823 Operation and Maintenance Data  
Section 017839 Project Record Documents

### **Division 03 Concrete**

Section 031000 Concrete Forming and Accessories  
Section 032000 Concrete Reinforcing  
Section 033000 Cast-in-Place Concrete

### **Division 05 Metals**

Section 051200 Structural Steel Framing  
Section 055000 Metal Fabrications

**Division 09 Finishes**

**Section 099000 Painting**

**Division 12 Furnishings**

**Section 129300 Site Furnishings**

**Division 31 Earthwork**

**Section 311000 Site Clearing**

**Section 312000 Earth Moving**

**Division 32 Exterior Improvements**

**Section 321313 Concrete Paving**

**Section 321400 Unit Paving**

**Section 321540 Crushed Stone Surfacing**

**Section 328000 Irrigation**

**Section 329113 Soil Preparation**

**Section 329200 Turf and Grasses**

**Section 329300 Plants**

**Division 33 Utilities**

**Section 331415 Site Water Distribution Piping**

**Section 334200 Stormwater Conveyance**

**Forms**

Form of Proposal

Identification of Minority Business Participation

Affidavit A – Listing of Good Faith Efforts

Affidavit B – Intent to Perform Contract with Own Workforce

Affidavit C – Portion of the Work to be Performed by HUB

Certified/Minority Businesses

Affidavit D – Good Faith Efforts Form of Bid Bond

Form of Bid Bond

Form of Construction Contract

Form of Performance Bond

Form of Payment Bond

Sheet for attaching Power of Attorney

Sheet for attaching Insurance Certificates

Approval by the University Attorney for the State of North Carolina  
through the University of North Carolina at Charlotte

**SECTION 011000 – SUMMARY (REVISED VIA ADDENDUM #1)**

**PART 1 - GENERAL**

**1.1 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.

**1.2 SUMMARY**

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Work under separate contracts.
4. Access to site and use of premises.
5. Logistics plan.
6. Safety.
7. Coordination with occupants.
8. Work restrictions.
9. Specification and Drawing conventions.

B. Related Requirements:

1. Section 012900 "Payment Procedures" for requirements for the Schedule of Values to differentiate portions of the Work funded from separate sources.
2. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
3. Section 012300 "Alternates"

**1.3 PROJECT INFORMATION**

A. Project Identification: The University of North Carolina at Charlotte Remembrance Memorial

1. Project Location: 9201 University City Blvd, Charlotte, NC 28223

B. Owner: The University of North Carolina at Charlotte

1. Owner's Representative:

Elizabeth Frere

[efrere@uncc.edu](mailto:efrere@uncc.edu)

704-687-0558

C. Landscape Architect & Project Manager: Susan Hatchell Landscape Architecture, PLLC

1. Project Manager:  
Susan Hatchell [susan@susanhatchell.com](mailto:susan@susanhatchell.com) 919-838-9600

D. Landscape Architect's Consultants: The Landscape Architect has retained the following design professionals who have prepared designated portions of the Contract Documents:

1. Civil Engineer: SEPI Engineering & Construction Inc.  
Dan Miller [dmiller@sepiinc.com](mailto:dmiller@sepiinc.com) 919-789-9977
2. Landscape Architect: TEN x TEN  
Maura Rockcastle [maura@tenxtenstudio.com](mailto:maura@tenxtenstudio.com) 612-440-8369
3. Structural Engineer: Lynch Mykins Structural Engineers, PC  
Heather Askins [haskins@lynchmykins.com](mailto:haskins@lynchmykins.com) 919-782-1833
4. PME Engineers: Engineered Design, Inc.  
Ginger Scoggins [gscoggins@engineereddesigns.com](mailto:gscoggins@engineereddesigns.com) 919-851-8481
5. Memorial Designer: Hypersonic, LLC  
Bill Washabaugh [bill@hypersonic.cc](mailto:bill@hypersonic.cc) 347-868-6450

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. This project includes the construction of the Remembrance Memorial structure, landscape and hardscape, utility relocation, and other Work indicated in the Contract Documents.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.5 WORK UNDER SEPARATE CONTRACTS

A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying Work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

B. Work Under Separate Contract: The following work will be completed separate from the Work of this Contract. Work should be completed at a time that minimizes construction traffic over completed work.



1. Installation of the lighting, lighting controller, prisms, tension cables, and programming of the lights for the Remembrance Memorial structure.

#### 1.6 DELEGATED DESIGN WORK

- A. Contractor shall retain the services of a Professional Engineer licensed in the State of North Carolina to prepare, sign, and seal delegated design drawings and calculations that conform to the contract document plans, details, and specifications.
- B. Structural Engineer and Owner shall review and approve shop drawings and submittals for conformity to the performance criteria and design intent provided in the contract documents.
- C. The following work will be completed under Delegated Design:
  1. Tension cable holders and brackets.
  2. Submittal for all paints and painting methods for all plain steel.

#### 1.7 ACCESS TO SITE AND USE OF PREMISES

- A. General: Contractor shall have full use of Project site within the Contract limits for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
- B. Use of Site: Limit use of Project site to Work in areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
  1. Limits: Confine construction operations to the limits shown on the Contract Drawings.
  2. Driveways, Walkways and Entrances: Keep driveways, walkways and entrances serving public accesses clear and available to users, employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
    - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
    - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- C. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.
- D. The Contractor shall use only the following roads on campus: Mary Alexander Rd. from Mallard Creek Church Rd. to Craver Rd. to Library Lane to South Library Lane to the

construction entrance.

1. Each Contractor must coordinate materials deliveries to the project site without recourse to University staff assistance. Shipping documents must contain complete delivery instructions to include a site location, Contractor name, and telephone number for the delivery truck driver's use. In case of fire, medical, ambulance or safety concern dial 911.
  - a. Deliveries to the construction site shall be completed before 8:00 am or started after 6:00 pm Monday thru Friday. If special or weekend deliveries are needed, coordinate with the University.
2. Each Contractor using a yard hydrant, wall hydrant or hose bib must use the proper key or handle. A key or handle may be borrowed from Facilities Management. Damage from misuse or abuse will be billed to the offending Contractor. Fire hydrants will not be used for water supply (case-by-case exceptions may be made by Facilities Management if no other water is available).
3. The Contractor shall take reasonable effort to protect existing surfaces, roadways/haul routes, parking lots, finishes, and adjacent facilities from damage during construction. Prior to construction, the Contractor may initiate a Pre-Construction meeting with the Designated Representative to perform an inspection to record damaged existing conditions. Each Contractor will ensure that vehicles and equipment are not loaded beyond their rated Gross Vehicle Weight, or other load restrictions. Vehicles operating on the Campus must comply with all State weight and axle restrictions. Contractors will be held responsible for repair of damage caused by their vehicles. When hauling material consisting of any form of stone, rock, dirt, debris or concrete the material shall not be piled or placed any higher than the sides of the hauling vehicle without written authorization of the University.
4. Explosive blasting is not allowed.
5. All equipment must be secured when Contractor staff is not on-site. Each contractor must accept responsibility for physical security of tools, equipment, materials and other property on-site. The construction fence must be maintained and signed to prevent casual entry into the site.
6. Contractors can work 24 hours per day, 7 days per week, except on Saturday during spring and winter commencements, provided the general contractor's superintendent is on site. Other restrictions apply near housing areas.
7. Each Contractor is responsible for employee conduct and behavior on Campus. Harassment, verbal abuse, and other such behavior toward students, faculty, staff, or the public will not be tolerated. Radios and other sound sources are not allowed on the project. All employees are required to wear shirts.
8. Each Contractor (and all Contractor employees) must comply with University Traffic Regulations and Emergency Procedures Manual. All North Carolina motor vehicle laws apply on Campus, including registration and inspection requirements. The University reserves the right to direct the route of all hauling on University property. There shall be no additional payment related to the route being selected or modified by the University. Factors such as traffic disruption, soiling of street, and detriment of pavement will be considered.
9. All materials, equipment, vehicles, and employee vehicles must be contained

within the limits of construction. Parking is extremely limited on Campus. Vehicles shall be parked in assigned areas to be arranged with the University. Vehicles must display temporary parking permits which will be provided by the University. Vehicle operators shall comply with all traffic and parking signs. Parking on sidewalks or lawns for loading and unloading may be arranged on an individual basis, but only after coordination with the University.

10. Weapons are prohibited on Campus.
11. Prior to any excavation at any location by any Contractor, the Contractor must coordinate with Facilities Management to establish all utility locations. A University representative in company with the Contractor's representative will locate and mark location of utilities on the ground. The Contractor remains responsible for protecting existing utilities from damage.
12. Contractors will maintain safe pedestrian ways around the project site. Walkways and roads will not be blocked.
13. To the extent herein described there is no charge to Contractors for University provided utilities. The University will provide power at no cost for office trailers and small tools. The University will identify utility sources and the contractor will be responsible for all costs associated with tie-in, metering, and distribution. Hot and cold water for HVAC equipment, if available, shall be metered by the contractor. Contractor will be invoiced monthly at the current rate.
14. Utilities outages must be coordinated with Facilities Management at least 30 days prior to the period of the outage. For some critical circuits, longer lead times may be necessary.
15. Contractors must provide all labor, materials, tools, and equipment to accomplish the work. The University will not furnish or loan anything except as contract documents indicate. No Contractor shall use any facility beyond the limits of construction.
16. Added items to be provided to the Contractors by the University:
  - a. Campus Telephone List
  - b. Facilities Management Telephone List
  - c. Campus Map
  - d. UNCC Emergency Procedures Manual
  - e. UNCC Traffic Regulations
17. The Contract Documents may specifically identify certain existing materials and items which are to be delivered to the Owner. For any other materials removed in the course of the Work, the Contractor shall first offer them to the Owner; if not accepted, the Contractor shall remove them from the Project. Any materials which are paid for under the Contract, but not incorporated into the Work due to Change Orders or for other reasons, shall be similarly offered to the Owner.

## 1.8 LOGISTICS PLAN

- A. Prior to mobilization and construction: Contractor shall submit Logistics Plan to Designer and University. Plan to include procedures, arrangements, maps, and diagrams as needed. Logistics Plan shall address and document the following:

1. Site Access Route (roads entering campus, roads used to go through campus, and routes to work site).
  - a. Flagmen are required for any intersection of a pedestrian route with contractor's site access route to the construction site.
2. Site Access Location(s) and Construction Entrance.
3. Contractors must limit parking of company vehicles and storage of materials to an area designated in consultation with the University. Locations shall be shown on the Logistics Plan.
  - a. Two vehicle parking passes will be provided to the General Contractor for their daily use for duration of project and must always be displayed. General Contractor logo must be visible on the vehicle while on campus.
  - b. Exact parking location of these two vehicles shall be designated by the Designer and the University and shown on Logistics Plan.
  - c. All other construction and personal vehicles can park at the Starlight Cinema parking lot, located at 11240 US HWY 29, 11240 N Tryon Street, Charlotte, NC, 28262, or as otherwise coordinated with the University.
4. Laydown area boundaries must be defined within the construction site (limits of construction as identified on plans).
5. Storage of dumpster, contractor trailer, construction material & equipment storage, and storage unit shall be limited to the laydown area, or in an area designated in consultation with the University.
  - a. The location of the dumpster shall be designated by Designer and the University and shown on Logistics Plan.
6. If pedestrian walkways are affected because of project construction, a proposed plan shall be submitted to re-route pedestrians around the site and shall include and maintain all ADA accesses as designated by the Designer. Logistics Plan shall be updated to show accepted re-routing. Signage and location of signs for the pedestrian walkways shall be designated by Designer, shown on Logistics Plan, and provided by contractor. All signage shall be submitted to the University for approval.

## 1.9 SAFETY

### A. Contractor's Safety Guide

1. General: It is University policy to provide a working, teaching, and learning environment as free as possible of recognized hazards to the safety and health of students, faculty, staff, and visitors. All Contractors are required to comply with that policy. All safety, health, and fire protection rules, regulations, policies, and procedures that apply to UNC Charlotte personnel shall also apply to Contractors and their employees. Prior to initiating any contractual operations, the Contractor's

on-site supervisors shall become thoroughly familiar with UNC Charlotte safety rules, procedures, emergency and disaster instructions plus all applicable state and federal safety and health regulations. Contractor shall establish and maintain a functioning safety program including safety meetings and site inspections for the purpose of controlling unsafe acts and conditions at the work site.

Please refer to webpage for contract safety program:  
<http://safety.uncc.edu/contractors>

## B. University Safety Office Requirements

1. The following requirements have been established by the University Safety Officer:
  - a. In case of fire, medical, ambulance, or safety concern dial 911 (off campus line 704-687- 2200).
  - b. Hazard Communication notifications will be made to extension 2200.
  - c. Notify UNC Charlotte of any hazardous or unusual operation.
  - d. Notify UNC Charlotte of any impairment of fire protection.
  - e. A chemical spill prevention plan must be in effect.
  - f. Accomplish regular removal of scrap and debris.
  - g. All welding, cutting, or hot work must comply with appropriate safety standards.
  - h. No parking on sidewalks except as necessary during a specific task.
  - i. Designate a safety and health coordinator for the project or assign that responsibility to the on-site superintendent.
  - j. Comply with UNC Charlotte posted "No Smoking" rules.

### 1.10 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and existing buildings during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.
  1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
  2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
  3. Provide a person signaling with a flag any time vehicles or equipment will be crossing pedestrian paths.

### 1.11 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
  - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. Tree Protection and Silt Fencing: Tree protection and silt fencing shall be installed as shown on plans prior to the start of any construction activities.
- C. Site Control and Protection: It is the option of the Contractor to provide additional chain link fencing to protect work from vandalism or the general public from hazardous conditions.
- D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
  - 1. Notify Owner not less than five days in advance of proposed utility interruptions.
  - 2. Do not proceed with utility interruptions without Owner's written permission.
- E. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
  - 1. Notify Designer and Owner not less than five days in advance of proposed disruptive operations.
  - 2. Obtain Designer's written permission before proceeding with disruptive operations.
- F. Controlled Substances: Use of tobacco products and other controlled substances on the Project site is not permitted.

#### 1.12 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
  - 2. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
  - 3. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
  - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
  - 2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not Used)

**END OF SECTION 011000**

**INTENTIONALLY LEFT BLANK**



## **SECTION 012300 – ALTERNATES (REVISED VIA ADDENDUM #1)**

### PART 1 - GENERAL

#### 1.1 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.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

#### 1.3 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 the 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.

#### 1.4 PROCEDURES

- A. Coordination: Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the 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

### 3.1 SCHEDULE OF ALTERNATES

#### A. Owner Preferred Alternates

1. Owner Preferred Alternate #OPA-1: Provide irrigation components manufactured by Toro as shown on plans and specifications.
2. Owner Preferred Alternate #OPA-2: Provide resin bonded aggregate as shown on plans and as included in the specifications.
3. Owner Preferred Alternate #OPA-3: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Primer, Carbomastic 15.
4. Owner Preferred Alternate #OPA-4: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Paint, Carboxane 2000.
5. Owner Preferred Alternate #OPA-5: If stainless steel is **NOT** selected per Alternate #1, provide Carboline Clear Coat, Carbothane 134.

#### B. Alternates

1. Alternate #1: Provide stainless steel for the Remembrance Memorial tube structure in lieu of plain steel as shown on plans.
  - a. Alternate includes: Stainless Steel for tube structure
  - b. Base Bid includes: Plain Steel for tube structure
2. Alternate #2: Provide six (6) additional Pebble Benches as shown on plans.
  - a. Alternate includes: Provide an additional six (6) Pebble Benches as detailed on sheet L505 and per Section 129300 Site Furnishings for a total of ten (10) Pebble Benches.
  - b. Base Bid includes: Provide a total of four (4) Pebble Benches.
3. Alternate #3: Provide sixteen (16) movable lounge seats as shown on plans.
  - a. Alternate includes: Provide sixteen (16) movable lounge seats per Section 129300 Site Furnishings.
  - b. Base Bid includes: No moveable lounge seats included in the Base Bid.
4. Alternate #4: Provide and install an additional Memorial Message Sign as shown on plans.
  - a. Alternate includes: Provide and install an additional Memorial Message Sign as detailed on sheet L505 and per Section 129300 Site Furnishings for two (2) Memorial Message Signs total.
  - b. Base Bid includes: Provide and install one (1) Memorial Message Sign.

**END OF SECTION 012300**

## **SECTION 014000 - QUALITY REQUIREMENTS (REVISED VIA ADDENDUM #1)**

### **PART 1 - GENERAL**

#### **1.1 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.

#### **1.2 SUMMARY**

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specific quality-assurance and quality-control requirements for individual work results are specified in their respective Specification Sections. Requirements in individual Sections may also cover production of standard products.
  - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
  - 3. Requirements for Contractor to provide quality-assurance and quality-control services required by Landscape Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

#### **1.3 DEFINITIONS**

- A. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of **five** previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- B. Field Quality-Control Tests: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- C. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, assembly, and similar operations.
  - 1. Use of trade-specific terminology in referring to a trade or entity does not require

that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).

- D. **Mockups:** Full-size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
- E. **Quality-Assurance Services:** Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- F. **Quality-Control Services:** Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include contract administration activities performed by Designer.
- G. **Source Quality-Control Tests:** Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.
- H. **Testing Agency:** An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

#### 1.4 DELEGATED-DESIGN SERVICES

- A. **Performance and Design Criteria:** Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
  - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

#### 1.5 CONFLICTING REQUIREMENTS

- A. **Referenced Standards:** If compliance with two or more standards or requirements are specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Designer for direction before proceeding.
- B. **Minimum Quantity or Quality Levels:** The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are

minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Designer for a decision before proceeding.

## 1.6 ACTION SUBMITTALS

### A. Shop Drawings: For mockups.

1. Include plans, sections, and elevations, indicating materials and size of mockup construction.
2. Indicate manufacturer and model number of individual components.
3. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

### B. Delegated-Design Services Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

## 1.7 INFORMATIONAL SUBMITTALS

### A. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

### B. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.
2. Entity responsible for performing tests and inspections.
3. Description of test and inspection.
4. Identification of applicable standards.
5. Identification of test and inspection methods.
6. Number of tests and inspections required.
7. Time schedule or time span for tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

### C. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

## 1.8 CONTRACTOR'S QUALITY-CONTROL PLAN

### A. Quality-Control Plan, General: Submit quality-control plan within thirty (30) days of Notice to Proceed, and not less than five (5) days prior to preconstruction conference. Submit in

format acceptable to Designer. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities. Coordinate with Contractor's Construction Schedule.

- B. Quality-Control Personnel Qualifications: Engage qualified personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.
  - 1. Project quality-control manager may be the Contractor's project superintendent, separate quality control manager or other designated individual appointed by the contractor to be responsible for the quality of work on the job site
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:
  - 1. Contractor-performed tests and inspections including Subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections. Distinguish source quality-control tests and inspections from field quality-control tests and inspections.
  - 2. Special inspections required by authorities having jurisdiction and indicated on the Statement of Special Inspections.
  - 3. Owner-performed tests and inspections indicated in the Contract Documents, including tests and inspections indicated to be performed by Commissioning Authority.
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Designer has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

## 1.9 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
  - 1. Date of issue.
  - 2. Project title and number.

3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and re-inspecting.

#### 1.10 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
  1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- F. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- G. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

- H. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
  - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- I. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
  - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
  - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- J. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- K. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- L. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
  - 1. Build mockups of size indicated.
  - 2. Build mockups in location indicated or, if not indicated, as directed by Designer.
  - 3. Notify Designer **seven** days in advance of dates and times when mockups will be constructed.
  - 4. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed to perform same tasks during the construction at Project.
  - 5. Demonstrate the proposed range of aesthetic effects and workmanship.
  - 6. Obtain Designer's approval of mockups before starting corresponding work, fabrication, or construction.
    - a. Allow seven (7) days for initial review and each re-review of each mockup.
  - 7. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
  - 8. Demolish and remove mockups when directed unless otherwise indicated.



## 1.11 QUALITY CONTROL

- A. **Owner Responsibilities:** Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspection they are engaged to perform.
  2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. **Contractor Responsibilities:** Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.
1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
  2. Notify testing agencies at least twenty-four (24) hours in advance of time when Work that requires testing or inspection will be performed.
  3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  4. Testing and inspection requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. **Retesting/Reinspecting:** Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- D. **Associated Services:** Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Delivery of samples to testing agencies.

6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  7. Security and protection for samples and for testing and inspecting equipment at Project site
- E. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspection.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- F. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Coordinate and submit concurrently with Contractor's Construction Schedule. Update as the Work progresses.
1. Distribution: Distribute schedule to Owner, Landscape Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

#### 1.12 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Owner will engage a qualified testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:
1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
  2. Notifying Designer and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
  3. Submitting a certified written report of each test, inspection, and similar quality-control service to Designer with copy to Contractor and to authorities having jurisdiction.
  4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
  5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
  6. Retesting and reinspecting corrected work.

#### PART 2 - PRODUCTS (Not Used)

## PART 3 – EXECUTION

### 3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
  - 1. Date test or inspection was conducted.
  - 2. Description of the Work tested or inspected.
  - 3. Date test or inspection results were transmitted to Designer.
  - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Designer's reference during normal working hours.

### 3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspection, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

**END OF SECTION 014000**

**INTENTIONALLY LEFT BLANK**

## **SECTION 05 12 00 STRUCTURAL STEEL FRAMING (REVISED VIA ADDENDUM #1)**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

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

#### **1.2 SUMMARY**

- A. Section Includes:

- 1. Structural steel.
- 2. Grout.

- B. Related Requirements:

- 1. Section 014100 "Special Inspection Services" for administrative and procedural requirements for special inspection services.

#### **1.3 DEFINITIONS**

- A. Structural Steel: Elements of the structural frame indicated on Drawings and as described in AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."

- B. Heavy Sections: Rolled and built-up sections as follows:

- 1. Welded built-up members with plates thicker than 2 inches.
- 2. Column base plates thicker than 2 inches.

#### **1.4 COORDINATION**

- A. Coordinate installation of anchorage items to be embedded in or attached to other construction without delaying the Work. Provide setting diagrams, sheet metal templates, instructions, and directions for installation.

#### **1.5 PREINSTALLATION MEETINGS**

- A. Preinstallation Conference: Conduct conference at Project site.

## 1.6 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Show fabrication of structural-steel components.
  - 1. Include details of cuts, connections, splices, camber, holes, and other pertinent data.
  - 2. Provide setting drawings, templates, and directions for installation of anchor bolts and other anchorages to be installed as work of other sections.
  - 3. Include embedment Drawings.
  - 4. Include details of cuts, connections, splices, camber, holes, and other pertinent data.
  - 5. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld. Show backing bars that are to be removed and supplemental fillet welds where backing bars are to remain.
  - 6. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify pretensioned and slip-critical, high-strength bolted connections.
- C. Delegated-Design Submittals for the following:
  - 1. For all structural-steel connections with design loads indicated on the drawings, include analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
  - 2. For all elements as indicated on the drawings, include connection and steel design data signed and sealed by the qualified professional engineer responsible for their preparation.

## 1.7 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and fabricator.
- B. Welding certificates.
- C. Mill test reports for structural steel, including chemical and physical properties.
- D. Product Test Reports: For the following:
  - 1. Bolts, nuts, and washers including mechanical properties and chemical analysis.
  - 2. Direct-tension indicators.
  - 3. Tension-control, high-strength, bolt-nut-washer assemblies.
  - 4. Shop primers.
  - 5. Nonshrink grout.

## 1.8 QUALITY ASSURANCE

- A. Fabricator Qualifications: A qualified fabricator that participates in the AISC Quality Certification Program and is designated an AISC-Certified Plant, Category STD.

1. Exception: The fabricator maintains detailed fabrication and quality control procedures which provide a basis for inspection control of the workmanship and the fabricator's ability to conform to approved drawings, project specifications and referenced standards.
  - a. At the Contractor's expense, an Independent Testing Agency acceptable to Architect shall review the procedures to the completeness and adequacy relative to the Code requirements for the fabricators scope of work.
- B. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1, "Structural Welding Code - Steel."
- C. Comply with applicable provisions of the following specifications and documents:
  1. AISC 303.
  2. AISC 360.
  3. AISC 370.
  4. RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- D. Sample Connections: Build sample connections to verify selections made under sample submittals and to demonstrate aesthetic effects.
  1. Build sample connections for the following conditions in sizes approximately 24 inches (600 mm) long by 48 inches (1200 mm) high by full thickness:
    - a. Tube-to-tube welded connection at intersection.
    - b. T-Cable Holder connection.
  2. Sample connections are to show any welds, anchors, and painting required in the finished condition for approval by the Owner.

#### 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to permit easy access for inspection and identification. Keep steel members off ground and spaced by using pallets, dunnage, or other supports and spacers. Protect steel members and packaged materials from corrosion and deterioration.
  1. Do not store materials on structure in a manner that might cause distortion, damage, or overload to members or supporting structures. Repair or replace damaged materials or structures as directed.
- B. Store fasteners in a protected place in sealed containers with manufacturer's labels intact.
  1. Fasteners may be repackaged provided Owner's testing and inspecting agency observes repackaging and seals containers.
  2. Clean and relubricate bolts and nuts that become dry or rusty before use.

3. Comply with manufacturers' written recommendations for cleaning and lubricating ASTM F 1852 fasteners and for retesting fasteners after lubrication.

#### 1.10 PERFORMANCE REQUIREMENTS

- A. Connections: Provide details of connections required by the Contract Documents to be selected or completed by structural-steel fabricator, including comprehensive engineering analysis by a qualified professional engineer, to withstand loads indicated and comply with other information and restrictions indicated.
  1. Select and complete connections using schematic details indicated and AISC 360.
  2. Use Load and Resistance Factor Design; data are given at factored-load level.
  3. All connections with loads indicated on the drawings are required to be designed by the fabricator's licensed professional engineer.

### PART 2 - PRODUCTS

#### 2.1 STRUCTURAL-STEEL MATERIALS

- A. Steel Hollow Structural Sections: ASTM A 500, Grade C. (Base Bid Option)
- B. Stainless Steel Hollow Structural Sections: ASTM A 554 TYPE 30403, Grade 50. (Alternate Bid Option)
- C. Plate and Bar: ASTM A 36. (Base Bid Option)
- D. Plate and Bar: ASTM A 480 TYPE 30403, Grade 25. (Alternate Bid Option)
- E. Welding Electrodes: E70XX - Comply with AWS requirements.

#### 2.2 BOLTS, CONNECTORS, AND ANCHORS

- A. High-Strength Bolts, Nuts, and Washers: ASTM A 325, Type 1, heavy-hex steel structural bolts; ASTM A 563, Grade C, heavy-hex carbon-steel nuts; and ASTM F 436, Type 1, hardened carbon-steel washers; all with plain finish.
  1. Direct-Tension Indicators: ASTM F 959, Type 325, compressible-washer type with plain finish.
- B. Headed Anchor Rods: ASTM F 1554, Grade 36, straight.
  1. Nuts: ASTM A 563 heavy-hex carbon steel.
  2. Plate Washers: ASTM A 36/A 36M carbon steel.
  3. Washers: ASTM F 436, Type 1, hardened carbon steel.
  4. Finish: Plain.



2.3 PRIMER (Base Bid Option Only)

- A. Primer: Carboline Carbomastic 15.

2.4 GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107/C 1107M, factory-packaged, nonmetallic aggregate grout, noncorrosive and nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

1. Minimum compressive strength: 5,000 psi

2.5 FABRICATION

- A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate according to AISC 303, "Code of Standard Practice for Steel Buildings and Bridges," and to AISC 360.

1. Identify high-strength structural steel according to ASTM A 6/A 6M and maintain markings until structural steel has been erected.
2. Mark and match-mark materials for field assembly.
3. Complete structural-steel assemblies, including welding of units, before starting shop-priming operations.

- B. Thermal Cutting: Perform thermal cutting by machine to greatest extent possible.

1. Plane thermally cut edges to be welded to comply with requirements in AWS D1.1/D1.1M.

- C. Bolt Holes: Cut, drill, or punch standard bolt holes perpendicular to metal surfaces.

- D. Finishing: Accurately finish ends of columns and other members transmitting bearing loads.

- E. Cleaning: Clean and prepare steel surfaces that are to remain unpainted according to SSPC-SP 2, "Hand Tool Cleaning."

- F. Holes: Provide holes required for securing other work to structural steel and for other work to pass through steel members.

1. Cut, drill, or punch holes perpendicular to steel surfaces. Do not thermally cut bolt holes or enlarge holes by burning.
2. Baseplate Holes: Cut, drill, or punch holes perpendicular to steel surfaces.
3. Weld threaded nuts to framing and other specialty items indicated to receive other work.

## 2.6 SHOP CONNECTIONS

- A. High-Strength Bolts: Shop install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.
  - 1. Joint Type: Snug tightened.
- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.

## 2.7 SHOP PRIMING (Base Bid Option Only)

- A. Shop prime steel surfaces except the following:
  - 1. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of 2 inches.
  - 2. Surfaces to be field welded.
  - 3. Surfaces of high-strength bolted, slip-critical connections.
  - 4. Surfaces to receive sprayed fire-resistive materials (applied fireproofing).
  - 5. Galvanized surfaces.
  - 6. Surfaces enclosed in interior construction.
- B. Surface Preparation: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces according to the following specifications and standards:
  - 1. SSPC-SP 2, "Hand Tool Cleaning."
- C. Priming: Immediately after surface preparation, apply primer according to manufacturer's written instructions and at rate recommended by SSPC to provide a minimum dry film thickness of 1.5 mils. Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.
  - 1. Stripe paint corners, crevices, bolts, welds, and sharp edges.
  - 2. Apply two coats of shop paint to surfaces that are inaccessible after assembly or erection. Change color of second coat to distinguish it from first.

## 2.8 SPECIAL INSPECTIONS

- A. Special Inspections and tests will be performed by a qualified testing and inspection agency.
  - 1. Provide access to places where structural-steel work is being fabricated or produced to perform tests and inspections.
  - 2. Verify that the fabricator maintains detailed fabrication and quality control procedures that provide a basis for inspection control of the workmanship and

that those procedures are being implemented. This inspection will provide a basis for determination of the fabricator's ability to conform to approved drawings, project specifications, and referenced standards.

- a. Exception: Special Inspections will not be required where the work is done on the premises of a fabricator registered and approved to perform such work without special inspection.
3. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices.
4. At completion of fabrication, the fabricator shall submit a certificate of compliance stating that the work was performed in accordance with the approved construction documents.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify, with certified steel erector present, elevations of concrete bearing surfaces and locations of anchor rods, and other embedments for compliance with requirements.
  1. Prepare a certified survey of existing conditions. Include bearing surfaces, anchor rods, bearing plates, and other embedments showing dimensions, locations, angles, and elevations.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Provide temporary shores, guys, braces, and other supports during erection to keep structural steel secure, plumb, and in alignment against temporary construction loads and loads equal in intensity to design loads. Remove temporary supports when permanent structural steel, connections, and bracing are in place unless otherwise indicated.
  1. Do not remove temporary shoring supporting composite deck construction until cast-in-place concrete has attained its design compressive strength.

#### 3.3 ERECTION

- A. Set structural steel accurately in locations and to elevations indicated and according to AISC 303 and AISC 360.
- B. Baseplates: Clean concrete bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.

1. Set plates for structural members on wedges, shims, or setting nuts as required.
  2. Weld plate washers to top of baseplate where required in contract documents.
  3. Snug-tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
  4. Promptly pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for shrinkage-resistant grouts.
- C. Maintain erection tolerances of structural steel within AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."
- D. Align and adjust various members that form part of complete frame or structure before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that are in permanent contact with members. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
1. Level and plumb individual members of structure.
  2. Make allowances for difference between temperature at time of erection and mean temperature when structure is completed and in service.
- E. Splice members only where indicated.
- F. Do not use thermal cutting during erection.
- G. Do not enlarge unfair holes in members by burning or using drift pins. Ream holes that must be enlarged to admit bolts.

### 3.4 FIELD CONNECTIONS

- A. High-Strength Bolts: Install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.
1. Joint Type: Snug tightened typical. Pretensioned at braced frame and collector connections.
- B. Weld Connections: Comply with AWS D1.1 for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
1. Comply with AISC 303 and AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.
  2. Remove backing bars or runoff tabs where indicated, back gouge, and grind steel smooth.

### 3.5 SPECIAL INSPECTIONS

- A. Special Inspections and tests will be performed by a qualified testing and inspection agency.
- B. Verification and inspection of steel construction shall be in accordance with the requirements of Section 1704.3 of North Carolina State Building Code 2018 and as follows:
  - 1. Welding: Welding inspection shall be in compliance with AWS D1.1. In addition to visual inspection, welds may be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at Special Inspector's option:
    - a. Liquid Penetrant Inspection: ASTM E 165.
    - b. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration will not be accepted.
    - c. Ultrasonic Inspection: ASTM E 164.
    - d. Radiographic Inspection: ASTM E 94.
  - 2. Details: Perform an inspection of the steel frame to verify compliance with the details shown on the approved construction documents such as bracing, stiffening, member locations and proper application of joint details at each connection.
  - 3. High Strength Bolts: Bolted connections will be tested and inspected according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
    - a. General: While Work is in progress, determine that the requirements for bolts, nuts, washers, paint, bolted parts and installation and tightening in such standards are met. For bolts requiring pretensioning, observe the preinstallation testing and calibration procedures when such procedures are required by the installation method or by project plans or specifications; determine that all plies of connected materials have been drawn together and properly snugged and monitor the installation of bolts to verify that the selected procedure for installation is properly used to tighten bolts. For joints required to be tightened only to snug-tight condition, verify that the connected materials have been drawn together and properly snugged.
    - b. Periodic monitoring: Monitoring of bolt installation for pretensioning is permitted to be performed on a periodic basis when using the turn-of-nut method with matchmarking techniques, the direct tension indicator method or the alternate design fastener (twist-off bolt) method. Joints designated as snug tight need be inspected only on a periodic basis.
    - c. Continuous monitoring: Monitoring of bolt installation for pretensioning using the calibrated wrench method or the turn-of-nut method without matchmarking shall be performed on a continuous basis.

- C. Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents.
- D. Additional testing performed to determine compliance of corrected Work with specified requirements shall be at Contractor's expense.

END OF SECTION 05 12 00

## **SECTION 099000 – PAINTING (ADDED VIA ADDENDUM #1)**

### PART 1 – GENERAL

#### 1.1 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.
- B. Related Sections:
  - 1. Section 051200 - Structural Steel Framing

#### 1.2 SUMMARY

- A. Work included in this Section shall consist of providing all painting on steel tubing, as indicated on Drawings and as specified.
- B. Surfaces to be Painted: Complete coverage of all exposed surfaces is intended. Without restricting the extent of the work to be performed, the work shall include but is not limited to the following:
  - 1. Ferrous Metal Above Grade Level Surfaces: All exposed surfaces of all ferrous metal work, including galvanized, which is not finished painted under other sections.
  - 2. Ferrous Metal Below Grade Level Surfaces: See Section Structural Plans.

#### 1.3 DEFINITIONS

- A. Paint: Includes emulsion, enamels, paints, varnishes, stains, oils, and other coatings used as prime, intermediate, or finish coats.

#### 1.4 QUALITY ASSURANCE

- A. Standard: All painting work shall be done only by skilled mechanics using adequate tools for work to be done.
- B. Coatings must be applied under the full-time supervision of a 3<sup>rd</sup> party coating consultant.
- C. Acceptable Manufacturers:
  - 1. Carboline
- D. Source: Products for use on this Project for each type of surface to be coated shall be of one manufacturer unless noted specifically otherwise herein.

#### 1.5 ACTION SUBMITTALS

- A. Sample Section: A full-scale test section must be coated using these methods and receive design approval prior to final coating.
- B. Delegated-Design Submittal: For all paint and painting methods, signed and sealed by the qualified engineer/architect responsible for their preparation.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Delegated-Design Engineer/Architect Qualifications: Include the following:
  - 1. Experience providing delegated-design engineering/architecture services of the type indicated.
  - 2. Documentation that delegated-design engineer/architect is licensed in the state in which Project is located.
- B. Provide detailed instructions on the process, materials, and tools to be used.

#### 1.7 PRODUCT HANDLING

- A. Storage of Materials: Paints, enamels, lacquers, sealers, stains, varnish, paste fillers and similar materials shall be delivered in original sealed containers that plainly show designated name, formulas, or specification number, batch number, color, date of manufacturer, manufacturer's directions, and name of manufacturer. Store all materials in single, heated space, provided by General Contractor.

#### 1.8 ENVIRONMENTAL CONDITIONS

- A. General: Exterior painting shall not be performed when the temperature is below 50 degrees F., while the surface is damp, during cold, rains, or frosty weather, or when temperature is likely to drop to freezing within 24 hours. Avoid painting surfaces while they are exposed to hot sun.
- B. Cleaning Area: Before painting is started in any area, the area shall be broom cleaned. Dust shall be removed from all areas to be painted.

#### 1.9 PROTECTION

- A. Drop Cloths: Protect adjacent areas and installations by use of drop cloths or other approved precautionary measures.

#### 1.10 EXTRA STOCK

- A. Extra Stock: Contractor shall turn over to the Owner one gallon of each type and final color of paint used on project. Furnish updated color schedule showing manufacturer, line or quality of paint, and color used.



## PART 2 – PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer/architect, as defined in Section 014000 "Quality Requirements," to prepare a submittal for the paints and painting methods for all plain steel.

### 2.1 PAINT MATERIALS

- A. All materials used for work shall be types specified in this Section. Paint shall arrive at project site, ready-mixed, except for tinting of undercoats, and thinning, if directed by manufacturer's printed instruction. Tinting materials shall be as recommended by manufacturer for particular materials to be tinted.

### 2.2 APPLICATION EQUIPMENT

- A. Equipment shall be adequate and in keeping with Work and workmanship required herein.

## PART 3 – EXECUTION

### 3.1 INSPECTION OF SURFACES

- A. Before starting any Work, examine surfaces to receive paint finish for defects which cannot be corrected by procedures specified and which might prevent satisfactory results. Do not proceed with Work until such conditions are corrected. Commencing of Work shall constitute acceptance of surfaces, and thereafter the Contractor shall be fully responsible for satisfactory Work.

### 3.2 PREPARATION OF SURFACES

- A. In no case shall paint be applied to surfaces upon which there is visible frost or ice.
- B. Prepare surfaces in accordance with SSPC SP11 or SP6.

### 3.3 APPLICATION

- A. Method of Application: All exterior paint shall be applied by brush, rollers, or sprayers in accordance with manufacturer's recommendations for the particular surface to be painted.
- B. Sequence of Coats: Allow sufficient time between successive coats to permit proper drying. Modify as necessary to suit adverse weather conditions.

If the Designer so directs, succeeding coats shall not be applied until he/she has had opportunity to inspect completed coat.

- C. General Requirements for Workmanship: Where color, stain, dirt, or undercoats show through final coat of paint, surface shall be covered by additional coats until paint film is of uniform finish, color, appearance, thickness, and coverage, at no additional cost to Owner.

Give special attention to ensure that edges, corners, crevices, welds, and rivets receive film thickness equivalent to that of adjacent painted or stained surfaces.

Touch up all scarred and abraded areas on shop-primed work after cleaning and smoothing down to avoid shoulders.

Rate of application shall not exceed average rate of coverage recommended by manufacturer for type of surface involved.

Finished surfaces shall be free from runs, drops, ridges, waves, laps, sags, brush marks; and free of variations in color, texture and finish.

### 3.4 PAINTING SCHEDULE

- A. Ferrous Metal Work:

1. Apply primer: Carboline Primer, Carbomastic 15
2. Apply paint: Carboline Carboxane 2000, Color 7737
3. Apply clear coat: Carboline Carbothane 134-HB Clear Coat, Satin Finish

- B. The General Contractor shall ensure that the paint systems specified and used are compatible with primers applied under other sections of the specifications.

**END OF SECTION 099000**

# FORM OF PROPOSAL

(Revised via Addendum #1)

Remembrance Memorial \_\_\_\_\_

Contract: \_\_\_\_\_

University of North Carolina at Charlotte \_\_\_\_\_

Bidder: \_\_\_\_\_

SCO# 20-21775 \_\_\_\_\_

Date: \_\_\_\_\_

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 further declares that he and his subcontractors have fully complied with NCGS 64, Article 2 in regards to E-Verification as required by Section 2.(c) of Session Law 2013-418, codified as N.C. Gen. Stat. § 143-129(j).

The Bidder proposes and agrees if this proposal is accepted to contract with the State of North Carolina through the University of North Carolina at Charlotte in the form of contract specified below, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the construction of

the University of North Carolina at Charlotte Remembrance Memorial

*The project consists of the construction of the Remembrance Memorial structure, landscape and hardscape, utility relocation, and other Work indicated in the Contract Documents*

in full in complete accordance with the plans, specifications and contract documents, to the full and entire satisfaction of the State of North Carolina, and the University of North Carolina at Charlotte, and the Design Team 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:

## **SINGLE PRIME CONTRACT:**

Base Bid:

\_\_\_\_\_ Dollars(\$)

General Subcontractor:

\_\_\_\_\_ Lic \_\_\_\_\_

Plumbing Subcontractor:

\_\_\_\_\_ Lic \_\_\_\_\_

Mechanical Subcontractor:

\_\_\_\_\_ Lic \_\_\_\_\_

Electrical Subcontractor:

\_\_\_\_\_ Lic \_\_\_\_\_

GS143-128(d) requires all single prime bidders to identify their subcontractors for the above subdivisions of work. A contractor whose bid is accepted shall not substitute any person as subcontractor in the place of the subcontractor listed in the original bid, except (i) if the listed subcontractor's bid is later determined by the contractor to be non-responsible or non-responsive or the listed subcontractor refuses to enter into a contract for the complete performance of the bid work, or (ii) with the approval of the awarding authority for good cause shown by the contractor.

**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.

**OWNER PREFERRED ALTERNATES**

Owner Preferred Alternate No. OPA-1: *Provide irrigation components manufactured by Toro as shown on plans.*

(Add) \_\_\_\_\_ Dollars(\$)

Owner Preferred Alternate No. OPA-2: *Provide resin bonded aggregate as shown on plans.*

(Add) \_\_\_\_\_ Dollars(\$)

Owner Preferred Alternate No. OPA-3: *If stainless steel is **NOT** selected per Alternate #1, provide Carboline Primer, Carbomastic 15.*

(Add) \_\_\_\_\_ Dollars(\$)

Owner Preferred Alternate No. OPA-4: *If stainless steel is **NOT** selected per Alternate #1, provide Carboline Paint, Carboxane 2000.*

(Add) \_\_\_\_\_ Dollars(\$)

Owner Preferred Alternate No. OPA-5: *If stainless steel is **NOT** selected per Alternate #1, provide Carboline Clear Coat, Carbothane 134.*

(Add) \_\_\_\_\_ Dollars(\$)

**ALTERNATES**

Alternate No. 1: *Provide stainless steel for the Memorial Structure.*

(Add) \_\_\_\_\_ Dollars(\$)

Alternate No. 2: *Provide six (6) additional Pebble Benches.*

(Add) \_\_\_\_\_ Dollars(\$)

Alternate No. 3: *Provide sixteen (16) movable lounge seats.*

(Add) \_\_\_\_\_ Dollars(\$)

Alternate No. 4: *Provide and install an additional Memorial Message Sign.*

(Add) \_\_\_\_\_ Dollars(\$)

**ALLOWANCES:**

The schedule of allowances to be included in the base bid is listed below.

**BASE BID:**

- Allowance No. 1                      Include 100 CY for rock excavation, removal and disposal off-site
- Allowance No. 2                      Include 35 CY for unsuitable soil excavation and disposal off-site
- Allowance No. 3                      Include 150 CY for import satisfactory backfill from off-site

**UNIT PRICES:**

Unit prices quoted and accepted shall apply throughout the life of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the base bid quantity of the work all in accordance with the contract documents.

No. 1	<u>Site Rock Excavation</u>	<u>CY</u>	Unit Price (\$)_____
No. 2	<u>Unsuitable Soil Excavation</u>	<u>CY</u>	Unit Price (\$)_____
No. 3	<u>Import Satisfactory Backfill</u>	<u>CY</u>	Unit Price (\$)_____

The bidder further proposes and agrees hereby to commence work under this contract on a date to be specified in a written order of the designer and shall fully complete all work thereunder within the time specified in the Supplementary General Conditions Article 23. Applicable liquidated damages amount is also stated in the Supplementary General Conditions Article 23.

## **MINORITY BUSINESS PARTICIPATION REQUIREMENTS**

---

*Provide with the bid* - Under GS 143-128.2(c) the undersigned bidder shall identify **on its bid** (Identification 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 Affidavit (**A**) required above. The MB Participation Form must still be submitted even if there is zero participation.

*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 always submit **with their bid** the Identification of Minority Business Participation Form listing all MB contractors, vendors and suppliers that will be used. If there is no MB participation, then enter none or zero on the form. Affidavit A **or** Affidavit B, as applicable, also must be submitted with the bid. Failure to file a required affidavit or documentation with the bid or after being notified apparent low bidder is grounds for rejection of the bid.

## Proposal Signature Page

---

---

The undersigned further agrees that in the case of failure on his part to execute the said contract and the bonds within ten (10) consecutive calendar days after being given written notice of the award of contract, the certified check, cash or bid bond accompanying this bid shall be paid into the funds of the owner's account set aside for the project, as liquidated damages for such failure; otherwise the certified check, cash or bid bond accompanying this proposal shall be returned to the undersigned.

Respectfully submitted this day of \_\_\_\_\_

\_\_\_\_\_  
(Name of firm or corporation making bid)

WITNESS:

\_\_\_\_\_  
(Proprietorship or Partnership)

By: \_\_\_\_\_  
Signature

Name: \_\_\_\_\_  
Print or type

Title \_\_\_\_\_  
(Owner/Partner/Pres./V.Pres)

Address \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Corp. Sec. or Asst. Sec. only)

License No. \_\_\_\_\_

Federal I.D. No. \_\_\_\_\_

Email Address: \_\_\_\_\_

(CORPORATE SEAL)

Addendum received and used in computing bid:

Addendum No. 1 \_\_\_\_\_ Addendum No. 3 \_\_\_\_\_ Addendum No. 5 \_\_\_\_\_ Addendum No. 6 \_\_\_\_\_

Addendum No. 2 \_\_\_\_\_ Addendum No. 4 \_\_\_\_\_ Addendum No. 6 \_\_\_\_\_ Addendum No. 7 \_\_\_\_\_

**INTENTIONALLY LEFT BLANK**



## University of North Carolina at Charlotte Remembrance Memorial - Plan Holders List

Updated: April 14, 2022

### **University of North Carolina at Charlotte**

**Elizabeth Frere, PLA, MUD**

**Assistant Director of Planning**

9201 University City Blvd.

Charlotte, NC 28223

Bus: (704) 687-0558

[efrere@uncc.edu](mailto:efrere@uncc.edu)

### **Susan Hatchell Landscape Architecture, PLLC**

**Jennifer Steed**

711 W. North Street

Raleigh, NC 27603

Bus: (919) 838-9600

Cell: (919) 845-8397

[jennifer@susanhatchell.com](mailto:jennifer@susanhatchell.com)

### **Duncan-Parnell**

900 S McDowell Street

Charlotte, NC 28204

Bus: (704) 526-1856

[Michaela.bruinius@duncan-parnell.com](mailto:Michaela.bruinius@duncan-parnell.com)

### **McGraw-Hill Construction /**

**Dodge Data & Analytics**

[www.construction.com](http://www.construction.com)

Bus: (877) 784-9556

[support@construction.com](mailto:support@construction.com)

### **Metrolina Minority Contractors Association (MMCA)**

[www.mmcaofcharlotte.org](http://www.mmcaofcharlotte.org)

Bus: (877) 526-6205

[mmca@mmcaofcharlotte.org](mailto:mmca@mmcaofcharlotte.org)

### **Construct Connect**

[www.constructconnect.com](http://www.constructconnect.com)

Bus: (877) 794-8089

[content@constructconnect.com](mailto:content@constructconnect.com)

### **Monument Warehouse**

**Divya Muruganatham**

[www.monumentwarehouse.com](http://www.monumentwarehouse.com)

Bus: 1-800-300-8025

[dm@monumentwarehouse.com](mailto:dm@monumentwarehouse.com)

### **Construction Journal**

**Jessica Thomas**

Bus: (772) 781-2144, ext. 464

[jthomas@constructionjournal.com](mailto:jthomas@constructionjournal.com)

### **Polycor**

**Gorica Sefer**

[www.polycor.com](http://www.polycor.com)

Bus: (212) 920-4563

[Gorica.sefer@polycor.com](mailto:Gorica.sefer@polycor.com)

### **Heartland Contracting, LLC**

**Marcy Bearden**

1064 Van Buren Ave Suite 8

Indian Trail, NC 28079

Bus: (704) 882-3004

[mbearden@heartlandnc.com](mailto:mbearden@heartlandnc.com)

### **Draw Enterprises, Inc.**

**Steve Jackson**

8100 Wilkinson Blvd., Suite 105

Charlotte, NC 28214

Bus: (704) 527-6446 x104

[steve@drawenterprises.com](mailto:steve@drawenterprises.com)