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**Pre-Bid Meeting Minutes
UNC Charlotte Union Parking Deck Expansion
SKA Project No. 160367.0
SCO ID No. 16-15657-02A
March 9, 2017
(Issued March 14, 2017)**

NOTICE TO BIDDERS

Bidder is hereby notified that this Addendum shall hereby become a part of the Contract Documents, and shall be attached to the Project Manual for the Project.

The following items are intended to revise and clarify the Drawings and the Project Manual.

The bidder shall see that his Sub-Bidders are in full receipt of the information contained herein.

PRE-BID MEETING MINUTES

In attendance were:

Tim Cook	SKA	tecook@skaeng.com
Kevin Baczynski	SKA	kbaczynski@skaeng.com
Marc Momsen	Land Design	
Dorothy Vick	UNC Charlotte HUB	dlvick@uncc.edu
John Casey	The Boswell Group	johncasey@theboswellgroup.com
Lee A. Parks	The Boswell Group	plumbing@theboswellgroup.com
David Hall	J.M. Thompson Co.	greg.heffner@jmthompsonco.com
Jennifer Price	UNC Charlotte	jennifer.price@uncc.edu
Deressa Prater	Messer Construction	dprater@messer.com
Chris Malinowski	Messer Construction	cmalinowski@messer.com
Lisa Lanier	UNC Charlotte	llanier@uncc.edu
Patrick Paige	Jenkins Peer	ppaige@jenkinspeer.com
Andy Rodriguez	Walbridge	arodriguez@walbridge.com
Ban Moore	Walbridge	daniel.moore@walbridge.com
Tom Finn	Axiom Foundations	tfinn@axiomfoundations.com
Jason Crawford	Long Foundation Drilling	jcrawford@lfdc.com
Richard Heath	Shiel Sexton	rheath@shielsexton.com
Jermaine Byrd	Byrd Trucking	byrd-jermaine@hotmail.com
Rich Bistline	Foss Demolition	rbistline@fossdemolition.com
Nate Budde	Foss Demolition	nbuddle@fossdemolition.com
W.D. Hutchins	DPR Construction	wdhutchins@dpr.com
Daryl Cavin	SuperGreen Solutions	daryl.cavin@supergreensolutions.com
Glenn Wise	New Atlantic	gwise@new-atlantic.com
David Truesdale	Samet	dtruesdale@sametcorp.com
John Willis	Samet	jwillis@sametcorp.com
Hector Davila	Bauer Foundations	hdavila@bauerfoundations.com



Nicholas Longone	Messer Construction	nlongone@messer.com
Alexandra Moran	Waste Connections	alexandram@wasteconnections.com
Tarris Arnold	Taylor Interiors, LLC	tarnold@taylorinteriorsllc.com

The Pre-Bid meeting was held at UNC Charlotte College of Health and Human Services Bldg. Room 161. The following is a summary of the pertinent items discussed during the meeting:

A. Introduction

1. Prequalified Contractors:

- i. DPR
- ii. Messer
- iii. Samet
- iv. Walbridge SE
- v. JM Thompson
- vi. New Atlantic
- vii. Shiel-Sexton

(JE Dunn and John M. Campbell were not in attendance and will not be allowed to bid the project.)

B. Contract/Project Conditions

- 1 State SCO project subject to SCO requirements.
- 2 Supplemental General Conditions:
 - i. Liquidated Damages: \$1000/day (starting and including May 2nd, 2018)
 - ii. Restrictions on work hours:
 1. **Home Football games**
 2. **Graduation Days**
 3. **Move-In Days**
 - iii. Rain days (average of past 5 years defined as 0.10"/day)-see SGC's
- 3 Minority Business Participation
 - i. Dorothy Vick, UNC Charlotte, presented the "Minority Business Participation" requirements and Good Faith Efforts (see attached).
 1. **20% participation goal**
 2. Email Dorothy Vick by March 15th for contacts (see attached)
 3. Verify all contacts by March 17th
 4. With each bid, provide:
 - a. ID form & Affidavit A or B
 - b. Within 72 hours, provide Affidavit C (met 20%) or D (attempted 10% or less)
 5. For pay application, turn in affidavit E
 6. 2nd Tier sub-contractors and suppliers can be counted toward this project.

C. Union Deck Overview

1. Reviewed existing site
2. Presented addition location
3. Presented addition rendering



4. Presented typical floor plan.
5. A proposed, conceptual phasing plan was presented and discussed. The phasing plan presented is not required to be followed by the Contractor. The Contractor shall phase the construction of the project such that the following conditions are achieved:
 - i. An entrance and exit shall always be provided at the lower level of the deck except for limited durations not exceeding 7 days with no more than (5) occurrences.
 - ii. An entrance is always provided to the lower level of the deck.
 - iii. Relocation of gate equipment to temporary entrance/exit locations is not required.
 - iv. The Contractor, with his bid proposal, shall submit a brief synopsis of his proposed phasing plan. The submitted phasing plan need not be comprehensive, but shall demonstrate that the Contractor has incorporated the conditions of the lower level entry/exit closures into his bid.
6. The phasing plan presented depicted a laydown space at the NE corner of the proposed project. If this area is not sufficient, the University will provide a remote laydown space on campus. All existing trees that interfere with the laydown space depicted will be removed by UNCC forces.
7. Discussed phasing of the 5th level infill space relative to shoring of the cast slab and driving access to the upper levels.

Access to the upper levels during shoring for the 5th floor infill may be achieved between column lines C/D-x3 and C/D-x4 similar to the current traffic pattern on the 6th level. The following work shall be included in the bid for levels 2, 3 and 4 as needed for re-shores:

- i. Detach the existing barrier cables between x3 and x4 and re-anchor at columns at x4. There are (2) sets of cables.
- ii. Provide permanent expansion joint seals as shown in section 1/S8.1 between lines x3 and x4. Contractor will be required to remove existing concrete to accommodate joint “wings”.
- iii. Provide temporary storm water to HAWC project (adjacent to Union Parking Deck Expansion site).
- iv. Provide new permanent protective bollards on the North side of the existing stand pipe near columns at C-x3 and D-x3.
- v. Provide approved temporary vehicular barrier system along line x3.
- vi. When 2-way vehicular access cannot be achieved between lines x3 and x4, the Contractor shall provide (2) flagmen to control traffic and maintain safe alternating traffic control.
- vii. Contractor shall clearly indicate traffic flow with temporary construction signage.



8. Temporary storm water to the “HAWC” Project was discussed. Civil drawings are being revised to accommodate stormwater.
 - i. Questions arose about:
 1. location of utility trench adjacent to Student Union Lane.
 2. Requirement for Parking Pass ID readers at temporary entrances.

D. Division 1

1. Work Conditions
 - i. UNC Charlotte to provide campus map with offsite storage.
 - ii. UNC Charlotte to provide parking passes.
 - iii. Contractor to provide restroom facilities.
 - iv. UNC Charlotte to provide water and electrical services to trailers.
 - v. Shipping route is from Highway 49 to Cameron Blvd.
 - vi. Deliveries to be made before 8AM and after 5PM
 - vii. No noise restriction, although housing and residence may provide certain restrictions.
 - viii. State electrical inspector is only on site on Tuesdays.
2. CPM Schedule
 - i. Questions arose about scheduling. In house schedule is allowed.
 - ii. “Cost-loaded” schedule is required.
3. Alternates
 - i. List of Alternates was reviewed.
4. Unit Prices: List of Unit Prices was reviewed.
 - i. Drilled pier specifications will be provided (see attached).
 - ii. Core Testing of drilled piers will be required and is outlined in the specifications.
 - iii. A question arose about soil bearing capacity. Spread footing soil bearing capacity will be provided/clarified by addendum.
5. Allowances
 - i. Allowances indicated in the Specifications are amounts to be included in the base bid proposal. The portion of allowance quantities not required or not used will result in an Owner Credit based upon the unit rate multiplied by the Allowance quantity not used.
 - ii. Drilled Pier rock removal allowance quantity was discussed. The drilled pier rock removal allowance will be revised to indicate allowances for each pier diameter on a linear foot (LF) basis.

E. Dates to Remember

1. If bid package is to be hand delivered, it should be delivered by 12:00, Noon, on March 28th to Hickory Building (see agenda for address)
2. Otherwise, bids to be received by 2:00PM on March 28th to Cone, Room 112.



3. SKA will receive written questions until 9:00am on Monday March 20. Final addendum will issued on March 21.

F. Final Comments and Questions

1. Construction Estimate provided in the Project Manual is not to be used by the Contractor.
2. Termite control is not required.
3. Construction crane foundation may remain in place provided that the crane foundation does not interfere with permanent operation of the parking deck. Design of the crane foundation will be at the expense of the Contractor by an Engineer registered in the State of North Carolina.
4. Clarification of regarding temporary sidewalk closure will be provided in a later addendum.
5. LED lights needed for Citadel Lights, as well as entire project.
6. Verify existing deck panel coating color requirement is clear.
7. Oil/water separator is not required.
8. 2nd tier contractors and suppliers are acceptable for minority participants.
9. A prebid conference for the Electrical Sub-Contractors is not required. (see sheet E1.2)

SKA will rely on these notes as our understanding of the matters discussed and conclusions reached during this meeting. This information will be the approved record unless you send written notice to the contrary within seven calendar days of receiving these meeting notes.

SKA CONSULTING ENGINEERS, INC.

TEC

Timothy E. Cook, PE
Project Manager

Attachments: Sign-In Sheets
Pre-Bid Meeting Agenda
MWBE Good Faith Efforts Summary and Instructions
Drilled Pier Specifications Section 31 63 29

--END OF PRE-BID MEETING MINUTES--

UNC CHARLOTTE UNION PARKING DECK EXPANSION
 PRE-BID SIGN IN SHEET
 MARCH 9, 2017

NAME	COMPANY	EMAIL	PHONE
JOHN CASEY	BOSWELL GROUP	JOHNCASEY@THEBOSWELLGROUP.COM	704-929-2650
LEE A. PARKS	BOSWELL GROUP	PLUMBING@THEBOSWELLGROUP.COM	704-989-0764
DAVID HALL	J.M. THOMPSON CO.	GREG.HEFFNER@JMTTHOMPSONCO.COM	919-851-1611 EXT. 134
JENNIFER PRICE	UNC CHARLOTTE	JENNIFER.PRICE@UNCC.EDU	704-425-0041
DERESSA PRATER	MESSER CONSTRUCTION	DPRATER@MESSER.COM	704-290-6996
CHRIS MALINOWSKI	MESSER CONSTRUCTION	CMALINOWSKI@MESSER.COM	704-579-2128
LISA LANIER	UNC CHARLOTTE	LLANIER@UNCC.EDU	704-687-0535
PATRICK PAIGE	JENKINS PEER	PPAIGE@JENKINSPEER.COM	704-940-6906
ANDY RODRIGUEZ	WALBRIDGE	ARODRIGUEZ@WALBRIDGE.COM	954-593-7340
DAN MOORE	WALBRIDGE	DANIEL.MOORE@WALBRIDGE.COM	919-602-1800
TOM FINN	AXIOM FOUNDATIONS	TFINN@AXIOMFOUNDATIONS.COM	336-579-4506
JASON CRAWFORD	LONG FOUNDATION DRILLING	JCRAWFORD@LFDC.COM	336-771-2464
RICHARD HEATH	SHIEL SEXTON	RHEATH@SHIELSEXTON.COM	803-504-0298
JERMAINE BYRD	BYRD TRUCKING	BYRD-JERMAINE@HOTMAIL.COM	704-315-1122
RICH BISTLINE	FOSS DEMOITION	RBISTLINE@FOSSDEMOLITION.COM	
NATE BUDDLE	FOSS DEMOITION	NBUDDLE@FOSSDEMOLITION.COM	919-608-5520
W.D. HUTCHINS	DPR CONSTRUCTION	WDHUTCHINS@DPR.COM	828-289-4301
DARYL CAVIN	SUPERGREEN SOLUTIONS	DARYL.CAVIN@SUPERGREENSOLUTIONS.COM	704-560-8627
GLENN WISE	NEW ATLANTIC	GWISE@NEW-ATLANTIC.NET	336-759-7446
DOROTHY VICK	UNC CHARLOTTE	DLVICK@UNCC.EDU	704-687-0527
DAVID TRUESDALE	SAMET	DTRUESDALE@SAMETCORP.COM	336-544-2600
JOHN WILLIS	SAMET	JWILLIS@SAMETCORP.COM	704-697-2125
HECTOR DAVILA	BAUER FOUNDATIONS	HDAVILA@BAUERFOUNDATIONS.COM	813-399-9394
NICHOLAS LONGONE	MESSER CONSTRUCTION	NLONGONE@MESSER.COM	704-578-3987
ALEXANDRA MORAN	WASTE CONNECTIONS	ALEXANDRAM@WASTECONNECTIONS.COM	704-309-6944
TARRIS ARNOLD	TAYLOR INTERIORS, LLC	TARNOLD@TAYLORINTERIORSLLC.COM	704-886-4813

**UNC Charlotte Union Parking Deck Expansion
PreBid Meeting Agenda
March 9, 2017– 2:00 pm to 3:30 pm**

A. Introduction

1. West Expansion of Existing Union Deck
2. This is a MANDATORY PRE-BID.
3. General Contractors must be PreQualified:

DPR

~~JE Dunn~~

Messer

Samet

Walbridge SE

JM Thompson

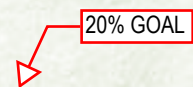
~~John M. Campbell~~

New Atlantic

Shiel-Sexton

UNC Charlotte Union Parking Deck Expansion

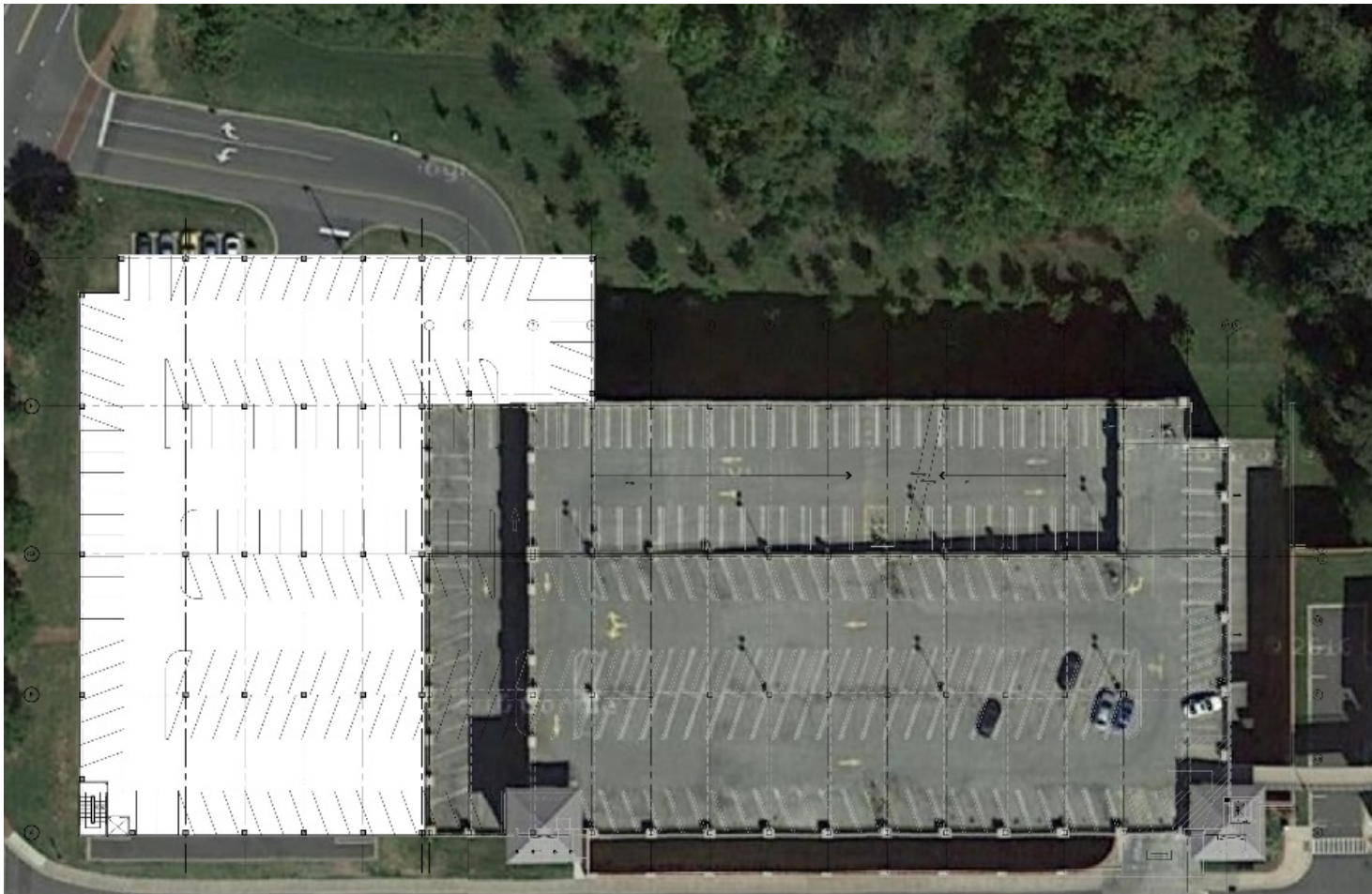
B. CONTRACT/PROJECT CONDITIONS

1. This is a State University Project subject to SCO Requirements
2. Supplemental General Conditions (UNCC) are applicable
Some Highlights:
 - a) Liquidated Damages are \$1000/day starting and including May 2, 2018
 - b) No restrictions on work hours **NO WORK ON HOME FOOTBALL GAME DAYS, GRADUATION OR MOVE IN.**
 - c) Rain days (avg of past 5yrs) and scheduling of rain days outlined in SGC's
 - d) There are no LEED or Commissioning requirements.
3. Minority Business Participation
 - a) Meet Dorothy Vick
 - b) Article 49 of the Gen Conditions establishes a ~~10%~~ participation goal 
 - c) Must achieve 50 good faith effort points to have a responsive bid.
 - d) Provide % Breakdown with each pay application(?)

C. Union Deck Overview: 1. Existing Site



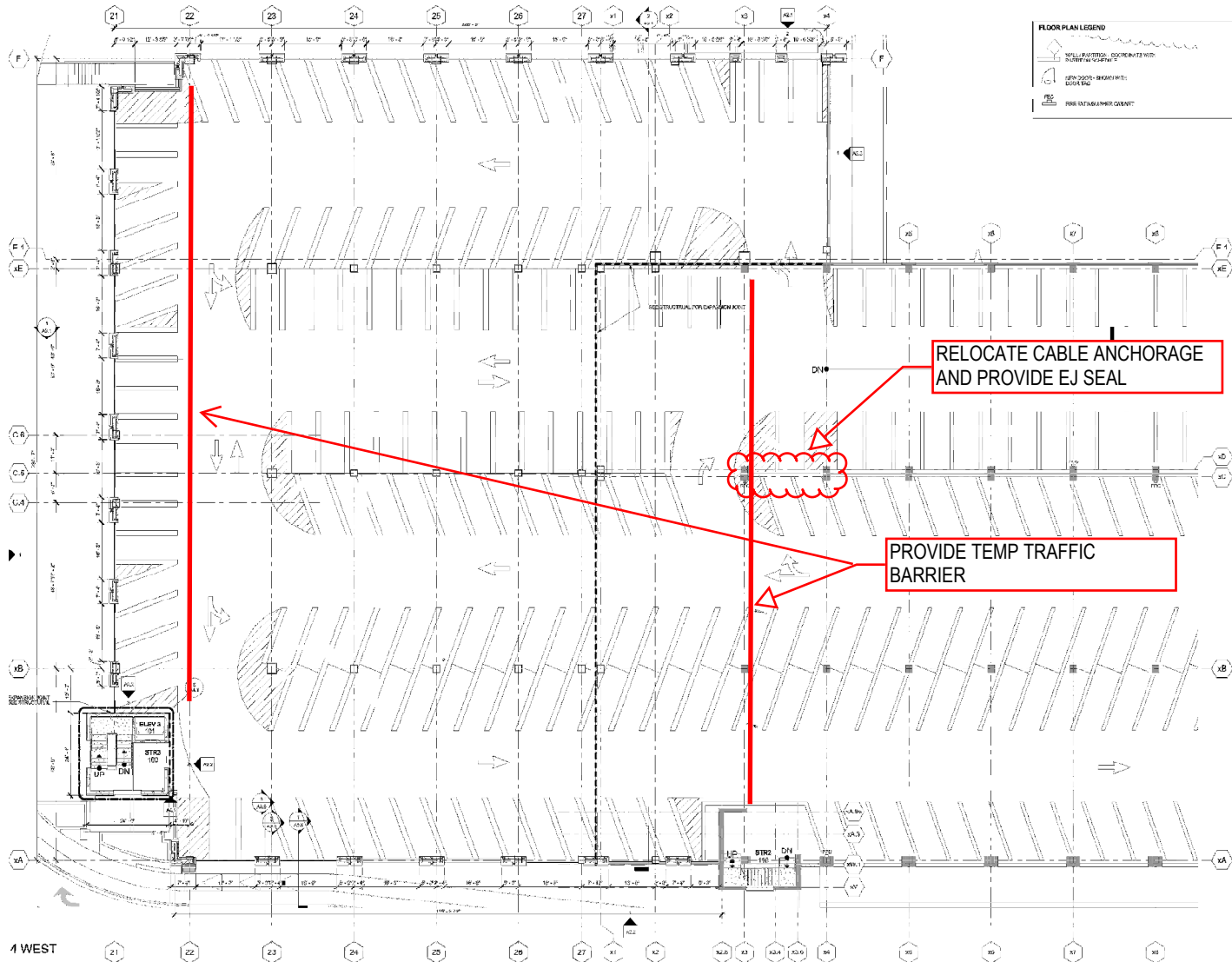
C. Union Deck Overview: 2. Addition Location



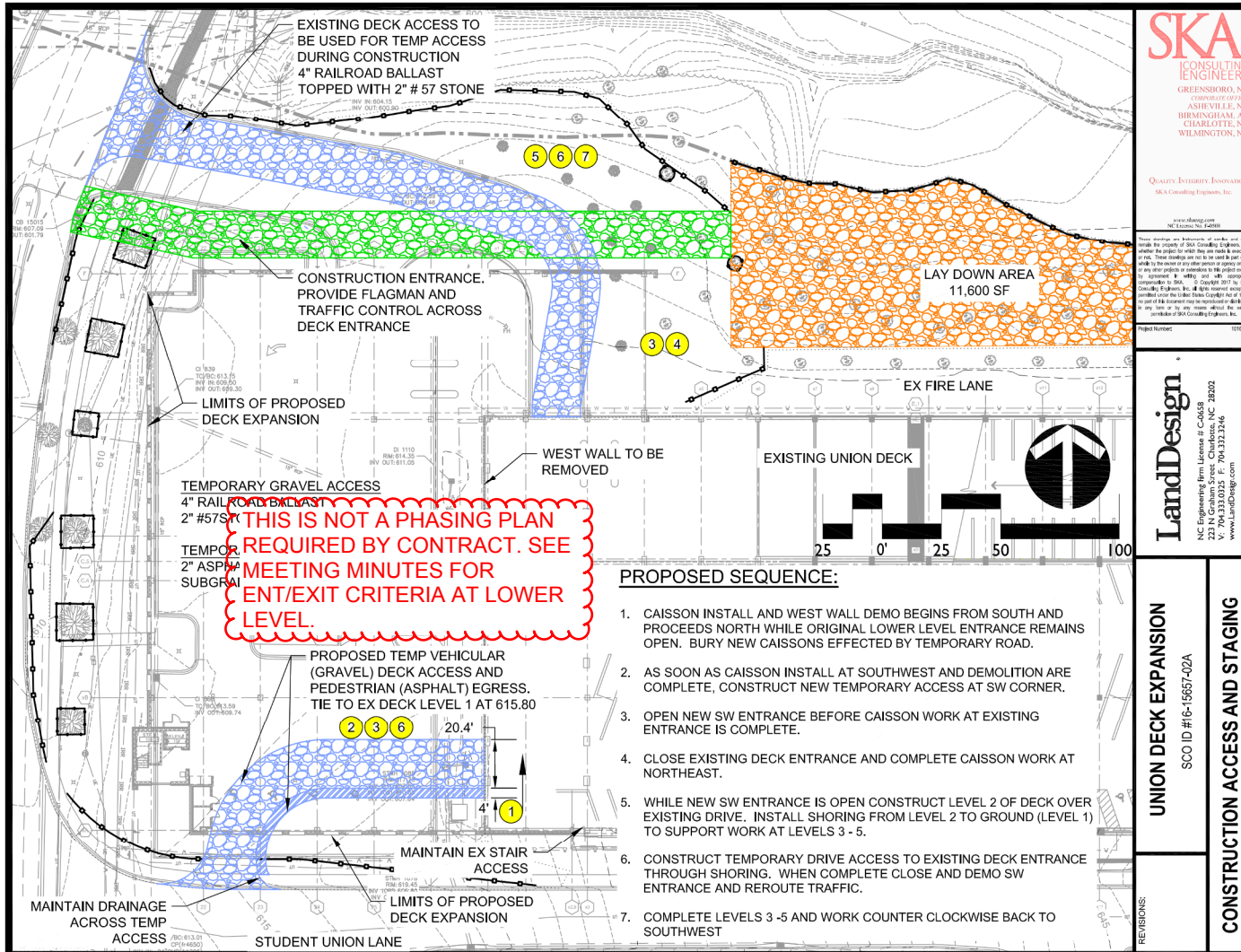
C. Union Deck Overview: 3. Addition Rendering



C. Union Deck Overview: 4. Typical Floor Plan



C. Union Deck Overview: 5. Phasing Plan



D. Division 1

1. WORK CONDITIONS

- a) Temporary Facilities (water, electricity and restroom)**
- b) Utilities**
- c) Parking**
- d) Storage**
- e) Decorum**
- f) Shipping Instructions**

2. CPM Schedule:

- a) Provide CPM Schedule within 15 days after Notice to Proceed**
- b) Provide \$value for %complete on schedule depicting cash flow.**
- c) Schedule should show (1) critical path**
- d) Include Shop Drawing submittal dates and allow for 20 days review time.**

D. Division 1:

3. Alternates

3.02 SCHEDULE OF ALTERNATES:

- A. Alternate No. 1: Coat underside of new deck including sides and bottoms of beams with high performance white coating. See Specifications.
- B. Alternate No. 2: Provide 'Bus Turn Out' at Cameron Boulevard. Refer to Civil Drawings and Specifications.
- C. Alternate No. 3: Replace existing deck signage. See Functional Drawings and Specifications.
- D. Alternate No. 4: Provide glazing and window framing in new stair/elevator tower at southwest corner of addition. See Architectural Drawings.
- E. Alternate No. 5: Construct Level 5 Addition to support superimposed LL = 100 psf. See Structural Drawings.
- F. Alternate No. 6: Provide arched entry "wing walls" at southwest corner "Plaza" area.
- G. Alternate No. 7: Stain/coat existing precast deck spandrel panels on north elevation of existing deck.
- H. Owner Preferred Alternate No. 8: Morrocroft Special, #0-79-1 manufactured by Hanson Brick
- I. Owner Preferred Alternate No. 9: Citadel fixture by Hadco (Citadel V35), AMP, Sternberg, Spring City, or approved equal – Malega Green, 150 WHPS
- J. Owner Preferred Alternate No. 10: Provide the following door hardware in lieu of all other hardware manufacturers specified: Schlage Key Systems, Cylinders and Keys - D-Series.

D. Division 1:

4. Unit Prices

SCHEDULE OF UNIT PRICES:

- A. Unit Price No. 1: Unsatisfactory Soils
- B. Unit Price No. 2: Trench Rock Removal
- C. Drilled Pier Unit Prices (See Drilled Pier Specification Section for Description):
 - 1. Unit Price No. 3-1: 3'-0" Diameter Pier Condition 1
 - 2. Unit Price No. 3-2: 3'-0" Diameter Pier Condition 2
 - 3. Unit Price No. 3-3: 3'-0" Diameter Pier Condition 3
 - 4. Unit Price No. 3-4: 3'-0" Diameter Pier Condition 4

 - 5. Unit Price No. 3.5-1: 3'-6" Diameter Pier Condition 1
 - 6. Unit Price No. 3.5.2: 3'-6" Diameter Pier Condition 2
 - 7. Unit Price No. 3.5.3: 3'-6" Diameter Pier Condition 3
 - 8. Unit Price No. 3.5.4: 3'-6" Diameter Pier Condition 4

 - 9. Unit Price No. 4-1: 4'-0" Diameter Pier Condition 1
 - 10. Unit Price No. 4-2: 4'-0" Diameter Pier Condition 2

D. Division 1:

5. Allowances

SCHEDULE OF ALLOWANCES:

- A. Allowance No. 1: Quantity Allowance: Include 50 cubic yards of unsatisfactory soil excavation and disposal off-site and replacement with satisfactory soil material from off-site, as specified in Division 31 Section "Earth Moving."
1. Coordinate quantity allowance adjustment with unit price requirements of Division 01 Section "Unit Prices."
- B. Allowance No. 2: Quantity Allowance: Include 30 cubic yards of trench rock removal and replacement with satisfactory soil material, as specified in Division 31 Section "Earth Moving."
1. Coordinate quantity allowance adjustment with unit price requirements of Division 01 Section "Unit Prices."
- C. Allowance No. 3: Quantity Allowance: Include 42 cubic yards of drilled pier/ caisson rock removal (obstruction) as specified in Section 31 63 29.
1. Coordinate quantity allowance adjustment with unit price requirements of Division 01 Section "Unit Prices."

TO BE REVISED FOR EACH DIA
ON LF BASIS

E. DATES TO REMEMBER:

1. MARCH 14 5:00 FIRST ADDENDUM ISSUED (ON OR BEFORE)
2. MARCH 20.....9:00AM CUT-OFF FOR QUESTIONS (all questions should be in written form)
3. MARCH 21 2:00 FINAL ADDENDUM ISSUED
4. IF NOT ATTENDING BID ~~BID~~ PACKAGE DELIVERY (UPS-FEDEX-US MAIL-HAND DELIVERED) BY NOON ON MARCH 28 TO:

CONTRACTOR MAY HAND DELIVER BID TO
CONE ROOM 112 BEFORE 1:59 !!!

HICKORY BUILDING (*Building #56 on campus map*)
9316 MARY ALEXANDER ROAD
CHARLOTTE, NC 28223

ATTN: JOYCE CLAY, OFFICE 35-B (*phone: 704-687-0615*)

BID OPENING ON MARCH 28 AT 2:00 (CONE ROOM 112)

F. FINAL COMMENTS AND QUESTIONS:

1. THE COST ESTIMATE IN THE PROJ MANUAL IS NOT PART OF THE CONTRACT AND SHALL NOT BE USED!!

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

UNC Charlotte
“Good Faith Effort” Requirements – SCO (Capital) Projects
(Union Deck Expansion)

The minority participation goal for this project is twenty percent (20%) or better.

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 State Construction Contracts. Bidders should be familiar with the ***Guidelines for Recruitment & Selection of Minority Businesses for Participation in State Construction Contracts*** as well as the applicable bid forms;

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 should be submitted with your bid, even if left blank.

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, trade or scopes of work for which subcontracts are being solicited, contact person within the prime contractor organization.

Be sure to maintain a telephone log to confirm that minority firms received your IFB. The log should contain the date contacted, telephone number, and name of the individual representing the minority firm who acknowledged receipt of your IFB. ***Also, maintain a telephone log to confirm that minority firms acknowledged a “bid/no bid” to your IFB.*** The log should contain the date contacted; telephone number, and name of the individual representing the minority firm who acknowledged, “bid/no bid” to your IFB.

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.

Example: 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, trade or scopes of work for which subcontracts are being solicited, contact person within the prime contractor organization.

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

Example: Document steps taken to segment elements of work into economically feasible units to meet minority business availability. Identify sub-contractors/suppliers/consultants and scope 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 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 recruitment of minority businesses. **Note:** Minority plan rooms are not applicable.
Example: Provide a copy of meeting minutes between 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; trade or 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; notification that the meeting will be counted toward the contractor's good faith effort.
Example: 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.
Example: 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.
Example: 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.
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.
Example: Document 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 bidders supplier.
Example: 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.
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.

Example: Provide a copy of joint venture or partnership arrangements between bidder and minority business.

10. Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

Example: 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 between bidder and minority business.

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.

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 <http://www.doa.nc.gov/hub/searchhub.aspx> for access to the SWUC Vendor database.

Assistance:

Email the UNC Charlotte HUB Coordinator, Dorothy Vick (704-687-0527), **no later than 12:00 Noon, March 15, 2017** to dlvick@uncc.edu (**Email Subject: Union Deck Expansion**) for the following;

1. **Assistance in finding certified minority firms who have worked on UNC Charlotte projects and who can perform the scopes of work (site work, concrete, electrical, etc.) you are seeking,** and/or
2. **A list of minority trade, community or contractor organizations** identified by the Office for Historically Underutilized Businesses that provide assistance in recruitment of minority businesses.

SECTION 31 63 29

DRILLED PIERS

PART I – GENERAL

- 1.01 RELATED DOCUMENTS: Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to work of this Section.
- 1.02 DESCRIPTION OF WORK:
- A. Work Included This Section: The work under this Section of the Specifications shall consist of all labor, materials, equipment and services necessary for and reasonably incidental thereto to complete the drilled pier work as specified and shown on the Contract Drawings, in strict accordance with the terms and conditions of the Contract Documents. All work shall be performed using supervisory personnel who are experienced in all phases of the work to be performed.
- B. Related Work Specified Elsewhere:
1. Section 03 20 00 - Concrete Reinforcement
 2. Section 03 30 00 - Cast-In-Place Concrete
 3. Section 03 37 00 – Concrete Curing
- 1.03 SOIL TEST BORINGS: A subsurface site exploration, performed by ECS, is bound in this set of Specifications. It is however the bidder's responsibility to familiarize himself with the site and subsurface conditions before submitting his proposal. Ignorance of site and subsurface conditions will not be accepted as a basis for a claim for additional compensation. The information shown on the boring logs and in the boring report is that made available by the Owner to the Architect for the design of the foundation system. The Contractor may, at his own expense, conduct any additional site investigation necessary for the verification of the information shown in the boring logs for preparation of the bid quotation and verification of the subsurface conditions.
- 1.04 LINES AND LEVELS: The General Contractor shall furnish to the Drilled Pier Subcontractor and be responsible for the correct location of lines and levels necessary for the proper performance and installation of the drilled pier work. The General Contractor shall be responsible for the correct plan locations and top elevations of drilled piers and verification of dimensions and elevations shown on plan. Any redesign and changes in the construction required in the foundation system due to the mislocations shall be made at the Contractor's expense. (Refer to Section 01 71 23.)
- 1.05 DRILLER QUALIFICATIONS:
- A. When directed by the Architect, the Contractor shall submit evidence of his experience and capabilities in drilled pier construction.

- B. The Contractor's record of experience and expeditious completion as well as the satisfactory installation of drilled pier work will be of prime consideration in qualifying the Contractor for this project.

1.06 DRILLED PIER INSPECTOR:

- A. Drilled pier work shall be subjected to continuous construction review by an experienced Drilled Pier Inspector working under supervision of a Geotechnical Engineer hired by the Owner. The selection of the Drilled Pier Inspector and Geotechnical firm will be made by the Architect subject to the Owner's approval. The charges made by the Drilled Pier Inspector will be paid for by the Owner. The Drilled Pier Inspector will observe the entire operation of the drilling, excavating, and concreting, will check the placement of the drilled pier reinforcing and dowels, and will inspect and approve the bearing capacity at the bottom of each drilled pier by inspection and testing. The Drilled Pier Inspector will enter each drilled pier shaft and approve or disapprove the bottom and/or bell immediately prior to placement of the concrete.
- B. The Drilled Pier Inspector will record all measurements pertaining to the drilled pier installations and shall note any unusual circumstances observed. At the end of each workday, the Inspector will complete a daily log of all measurements and quantities and will distribute copies to the Architect and the Contractor. These measurements and quantities shall be verified daily by the Contractor and any discrepancies immediately brought to the attention of the Drilled Pier Inspector and the Architect. Upon completion of the work, the Geotechnical Engineer will compile a typewritten report and summary of these daily logs, indicating the satisfactory completion of the work.

1.07 SUBMITTALS:

- A. The General Contractor shall also record quantities and measurements pertaining to the work and shall include and submit to the Architect drilling logs for each drilled pier. These logs shall be verified daily by the Drilled Pier Inspector. The daily report for each drilled pier shall include the following information:
 - 1. Date drilled
 - 2. Identification of each individual drilled pier
 - 3. Bottom elevation: Design, Actual
 - 4. Top elevation
 - 5. Water conditioning during drilling and placing of concrete
 - 6. Type and nature of bearing strata
 - 7. Conditions at bottom of each hole
 - 8. Top elevation of obstruction
 - 9. Bottom elevation of obstruction
 - 10. Comments on anything unusual relative to drilling
 - 11. Test holes, number and length
 - 12. Condition of rock at test holes
 - 13. Shaft design diameter
 - 14. Shaft drilled diameter

15. Bottom diameter
 16. Eccentricity
 17. Plumbness
- B. At the completion of the drilled pier work, the Geotechnical Engineer will complete a typewritten report and summary of these daily logs, indicating satisfactory completion of the work.
 - C. The Contractor shall certify that the Drilled Pier Subcontractor and person in charge of the drilling and installing of the drilled piers have the required experience.
 - D. Manufacturer's data showing that the drilling equipment conforms to the requirements of the Specifications shall be submitted prior to performing work.
 - E. The drilling logs for each drilled pier are to be verified and signed by the Drilled Pier Inspector and Drilled Pier Subcontractor at the completion of each drilled pier.
 - F. The Contractor shall submit a concrete mix design of the concrete mix proposed for use to the Architect for approval.
- 1.08 PRE-DRILLING CONFERENCE: Prior to beginning the drilling, the General Contractor shall schedule and conduct a meeting at the job site with all parties associated with the design and construction of the drilled piers to review the drilling requirements. Notify the Architect, Engineer, Owner, and testing agency responsible for the inspection and Certification of the drilled piers, at least three days in advance of the time of the meeting. The General Contractor shall take minutes of the meeting and distribute them to the parties in attendance.
- 1.09 CONSTRUCTION METHODS:
- A. It is not the intent of this Specification to unnecessarily restrict the Contractor in his construction methods, techniques, or equipment. However, the methods, techniques, and equipment specified are considered the minimum necessary to provide adequate installation. Deviation from these techniques or equipment may be made only with approval in writing by the Architect.
 - B. If the construction procedures used are observed to cause loss of ground or other conditions detrimental to the construction, or to other properties or structures, the Contractor shall be required to use other more appropriate procedures, or to demonstrate that, by changing some aspect of the procedure in question, he can complete the construction safely without objectionable effects.

PART II – PRODUCTS

2.01 MATERIALS:

- A. Concrete: All concrete for drilled piers shall be in accordance with Section 03 30 00 and shall have a minimum 28-day compressive strength of 4,000 psi as determined by standard 6"x12" cylinders and a maximum slump of 9" and a minimum slump of 6".
- B. Reinforcing: All reinforcing steel shall be as shown on the Drawings and shall comply with the requirements of Section 03 20 00. Reinforcing cages shall be tied and braced in a manner that the shape of the cage will not be deformed by construction operations or will impede the placement of the concrete. Welding of reinforcing steel in cages will not be permitted.
- C. Casings: The drilled pier subcontractor shall be solely responsible for the structural adequacy of the wall thickness to safely retain the soil pressure for the condition and depth of shafts at this site.
- 2.02 GENERAL: Drilled piers shall be formed by means of a power-driven rotary foundation drilling rig capable of drilling to depths greater than the estimated drilled-pier bottom elevation. Equipment shall be in first-class condition and shall be so maintained and operated at all times. The supervisory personnel employed by the Drilled Pier Subcontractor shall be experienced in all phases of the drilled pier work that is to be constructed. The estimated depths of the drilled piers are shown on the Drawings.
- 2.03 DRILLING EQUIPMENT: Since drilled piers are expected to advance through weathered zones of rock, it will be necessary to provide adequate construction equipment so that adequate penetration can be achieved by drilling techniques. Rock augers will be required to advance the drilled piers once earth auger refusal is obtained. Rock auger means helical augers with "cheater bits" and carbide toothed cutting edges. The drilling machine used shall have an overall minimum weight of 85,000 pounds and shall be equipped with a Kelly bar or bars that apply a minimum of 7,000 pounds of dead weight to the auger. In addition, the Kelly bar shall be equipped with a hydraulic crowd system capable of raising the machine's rear leveling hacks completely clear of the ground to apply the maximum dead weight of the drill machine itself in order to ensure maximum penetration. The machine shall be capable of applying at least 50,000 pounds downward total force and a minimum 95,000 foot-pound torque capacity to the auger while drilling the shaft. Rock auger refusal shall be defined as a penetration rate of less than 6" for 15 minutes of drilling and the above defined drilling rig, exerting maximum effort.
- 2.04 CRANE-MOUNTED RIG:
- A. Any crane-mounted drilling machine shall meet the same minimum requirements specified previously as to weights of the drilling machine and kelly bar, or bars. The machine shall be equipped with a hydraulic crowd system. The drilling unit, when affixed to the crane, shall have a solid connection from the top of the unit to the crane, as well as at the hook-up point at the bar, to ensure that the hydraulic crowd has an adequate reaction against which to apply the required maximum force.
- B. Extra compensation for hard excavation and obstructions will not be approved or paid for unless the work is performed with the drilling equipment specified and the equipment is operating in first-class condition.

PART III – EXECUTION

- 3.01 EXAMINATION OF SITE: The General Contractor and the Drilled Pier Subcontractor shall visit and examine the work site and all conditions thereon and shall take into consideration all conditions that may affect their work. The General Contractor and Drilled Pier Subcontractor shall notify the Architect of any conditions that may affect their work.
- 3.02 DESIGN LOAD: Drilled Pier design loads available on request and are to be verified in the field by the Drilled Pier Inspector before construction of each drilled pier.
- 3.03 TEST HOLES: Two, 2" test holes, to a depth equal to two times the diameter of the drilled pier (10'-0" maximum), shall be drilled with a percussion drill in each drilled pier as directed by the Drilled Pier Inspector.
- 3.04 DRILLED PIER INSTALLATION:
- A. Drilled piers shall be installed from the ground surface as existing after topsoil and general excavation work has been completed. The General Contractor shall be responsible for the locations of drilled piers.
 - B. The maximum variation of the center of any drilled pier from the required location at the drilled pier top shall be 1/12 of the pier diameter, and no drilled pier shall be out of plumb more than 1.5%. If these tolerances are exceeded, the Drilled Pier Subcontractor shall provide additional construction to bring the drilled pier within tolerances at no additional cost to the Owner. Redesign made necessary by out-of-tolerance construction shall be at the Contractor's expense.
 - C. The earth walls of the drilled pier excavations shall be adequately and securely protected against cave-in, displacement of the surrounding earth, and admission of groundwater. Support shall be by means of steel cylinder lining of sufficient strength to resist the horizontal pressures applied by the surrounding earth. When more than one liner is used in a single excavation, the individual liners shall overlap at least one caisson diameter or 5', whichever is less. The upper liner shall extend at least 2' above the level of the working surface around the top of the excavation.
 - D. Bells of drilled piers, when required, shall be reamed or cut to the angle and slope shown on the Drawings. In no case shall the angle or slope be more than 45 degrees from the vertical shaft. When excavating the bells, if an occasional rock or ledge is found to project into the bell and such intrusion is firmly held in the surrounding strata or is part of a solid rock ledge, it shall not be removed or split, but shall be cleaned and left to be concreted within the bell. It will be the responsibility of the Drilled Pier Inspector to determine where rock ledges may be cleaned and left projecting into the bell.
 - E. The bottoms of drilled piers shall consist entirely of material with adequate bearing capacity and shall be essentially level or, with the approval of the Architect, depressed toward the center or stepped. If the surface of the bedrock is sloping at the drilled pier base, it should be cut flat or stepped down across the bottom of the bearing surface.

The slope of the bedrock shall be no steeper than 10%, and steps shall not exceed 8" in height. If the excavation encounters suitable material in only part of the bearing area, the Contractor shall perform such work as is necessary to reach suitable material over the entire bearing area. Payment for excavation required to reach suitable bearing material, including any hand excavation required to remove loose material from the bottom of the shaft or bell, shall be made under the Base Bid prices and is not considered rock. Payment for excavation, requiring the use of hand labor and power tools, either to (1) remove boulders, projecting rock ledges or rubble to allow additional normal excavation, or (2) deepen the shaft by removing seamy or otherwise unsuitable rock too dense for machine excavation by the type of equipment specified, shall be made under the unit prices quoted for obstruction with the pay volume being the design volume of the shaft measured from the top of the obstruction to the bottom of the obstruction.

- F. Before any concrete is placed in a drilled pier, its bottom shall be leveled, belled to the required size as designed, cleared of any mud and other extraneous matter, dewatered and inspected. The Drilled Pier Subcontractor shall send personnel into each drilled pier excavation to accomplish the specified clearing procedure. Concrete shall not be placed in an excavation until it has been inspected and approved by the Drilled Pier Inspector.
- G. The concrete placement for each drilled pier shall be continuous from bottom to embedment of top reinforcing dowels. The schedule for start of concrete placement shall be such as to complete the entire drilled pier without interruption by break periods or end of workday. Drilled-pier concrete shall be properly placed and worked to prevent voids, cavities, or other types of weak zones preventing full design bearing value. Concrete shall be placed by such methods as required to ensure against segregation of the aggregate. The top 10' of each drilled pier, measured from the top elevation of the drilled pier, shall be consolidated by the use of internal mechanical vibrators.
- H. If removable steel liners are used, they may be withdrawn as the concrete is being placed if the bottom of the liner is kept 8' below the top of the concrete. The Contractor shall maintain a sufficient head of concrete to prevent a reduction in the diameter of the drilled pier shaft due to earth pressure on the fresh concrete and to prevent extraneous material from falling in from the sides and mixing with the new concrete. The concrete in any drilled pier shall be stopped at the cut-off elevations indicated on the Contract Drawings within a tolerance of $\pm 1"$.
- I. Drilled piers shall be dewatered so that no more than 2" of water is present in the bottom of a drilled pier at the time concreting begins. If the inflow of water cannot be controlled by pumping, including suction pumping, twisting of the lines into the bearing material, or other reasonable means, the Architect may approve placement of the concrete through still water by means of a tremie, bottom-dump bucket or concrete pump to a height sufficient to create a seal. The drilled pier shall then be completed in the normal manner after pumping or bailing of the surplus water is completed.
- J. The Contractor is allowed to use the "wet" or slurry method of installation (High Water Tables). However, removal of water shall be appropriate and adequate for proper inspection as specified.

- K. In dry holes, concrete may be dropped into place provided it is deposited vertically in the shaft from center of the drilled pier. The concrete shall not be allowed to rebound off the walls of the drilled pier shaft or off the steel liners.
- L. When any drilled pier is located in such a manner as to allow part of the concrete to set for more than one-half hour before the balance is placed, the resulting stoppage surface shall be approximately leveled and steel dowels inserted as directed by the Architect. When concreting is resumed, laitance and foreign material shall be cleaned from the surface as poured, and the surface shall be roughened before the remainder of the concrete is placed.
- M. Dowels shall be fabricated in cages that are practical prior to placement. Dowel cages shall be accurately located, aligned, and secured in place within the tolerances stated in ACI 117, "Standard Tolerances for Concrete Construction Materials." If dowel cages are placed after completion of placement of the concrete in the drilled pier, the cage shall be carefully worked down into the concrete in a manner to avoid segregation of the concrete mix around the dowel cage, as soon as the placement is complete and the lines are withdrawn, while the concrete is plastic. Consolidate the concrete mix around the cage by mechanical vibration. If the dowel cage is placed after the concrete placement is complete in the drilled piers, means shall be taken by the General Contractor to accurately locate, align, and position the dowel cage so that each dowel is positioned as required on the Contract Drawings.

3.05 OBSTRUCTIONS:

- A. Obstructions will be paid for as an extra over the Contract. Obstructions will be defined as failure of the specified drilling equipment, when equipped with a rock auger with teeth in satisfactory condition and set to the proper pitch and when operating as specified herein, to drill and cut the material. It shall be the sole responsibility of the Drilled Pier Inspector to determine that the equipment is operating as specified and will not cut or remove the obstruction. From the point of auger refusal, the entire drilled pier (neat line), including voids and softer materials that may be intermixed with the hard obstruction, will be computed as obstruction. Where possible, normal drilling operations shall be continued after the obstruction is removed. The representatives of the Architect will observe any excavation of the obstruction and establish, at the time the work takes place, the linear footage of obstruction excavation involved. This linear footage will be the basis for payment in accordance with the Unit Prices stated on the Bid Form.
- B. Payment for rock excavation will be made at the quoted unit prices by the first of both of the following methods:
 - 1. On all holes for drilled piers, when refusal is reached with the earth auger, a heavy-duty rock auger with steel flight plate, of not less than 1/2" thickness and equipped with carbide rock teeth, shall be used to drill into the rock until suitable bearing or refusal is reached. Refusal for both the earth auger and rock auger is defined as a penetration rate of less than 1" per 5 minutes of drilling at full crowd force. There will be no additional payment for use of the rock auger.

2. When refusal is reached with the rock auger, any additional excavation below the point of rock-auger refusal shall be made by a method selected by the Contractor, except that blasting will be allowed only if approved in writing by the Architect.
- C. When rock or obstruction ends and earth excavation resumes, the earth and/or rock auger shall be used for drilling. No rock payment will be made for drilling with the rock auger.
- D. The Drilled Pier Inspector shall observe rock excavation and will record and report the linear footage of each drilled pier shaft excavated by each method. The linear footage computed from this record will be basis for payment at the unit prices quoted.

PART IV – PAYMENT

- 4.01 **DEFINITION:** "Set aside" is defined as quantities or items that are to be paid for in addition to the adjusted base bid quantities due to recorded additional cost factors with unforeseen changes in items of construction.
- 4.02 **METHOD OF ADJUSTMENT IN PAYMENT:** Adjustments in the Base Bid for each drilled pier will be paid for or credited in accordance with the unit prices established in the Bid Form for Condition #1, Condition #2, Condition #3, and Condition #4. A diagram indicating methods and procedures for determining each of these conditions is included at the end of this Section, in the Bid Form and on the Drawings.
- 4.03 **CONCRETE DRILLED-PIER BID FORM:**
 - A. **General:** The following is a general explanation of the basis for adjusting the price of each drilled pier, shown on the Drawings, as required by the Architect or Drilled Pier Inspector. See also the schematic diagram titled "Explanation of Base Bid and Unit Prices for Drilled Piers." The unit prices shall include all overhead, profit, and other related costs.
 1. Condition #1 applies as a unit-price credit or extra for variation in the installed length of each individual drilled pier that does not vary by more than 25% of the Base Bid Length of each drilled pier as shown on the Drawings.
 2. Condition #2 applies as a unit-price credit for that length of an individual drilled pier that is not installed above the elevation of the bottom of the drilled pier shown on the plans less 25% of the Base Bid Length of the drilled pier shown on the plans.
 3. Condition #3 applies as a unit price for obstructions. Obstructions within the Base Bid Length will be paid for in accordance with the unit price established for Condition #3 less the unit price for earth in either Condition #1, or #2, depending on where the obstructions are found. Obstructions found below the Base Bid Length will be paid for in accordance with the unit price established for Condition

UNC Charlotte Union Deck Expansion

SKA Project No. 160367.1

SCO ID # 16-15657-02A

CD Submittal 2017-02-27

#3 only.

4. Condition #4 applies as a unit-price extra for any length of drilled pier installed at a depth below the bottom elevation of the drilled pier shown on the plans plus 25% of the Base Bid Length of the individual drilled pier as shown on the Drawings.

- B. Total Base Bid Cost shall include cost for mobilization, demobilization, supervision, and all expenses not directly related to the drilling and placement of concrete and reinforcing steel.

DRILLED PIERS	BASE BID LENGTHS		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #1 UNIT PRICE		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #3 UNIT PRICE
	TOTAL LENGTH (LF)	LENGTH OF OBSTRUCTION* (LF)	UNIT PRICES	X BASE BID LENGTH	X BASE BID OBSTRUCTION
36" diameter		Condition #1	\$ _____	\$ _____	\$ _____
		Condition #2	\$ _____	\$ _____	\$ _____
		Condition #3	\$ _____	\$ _____	\$ _____
		Condition #4	\$ _____	\$ _____	\$ _____

DRILLED PIERS	BASE BID LENGTHS		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #1 UNIT PRICE		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #3 UNIT PRICE
	TOTAL LENGTH (LF)	LENGTH OF OBSTRUCTION* (LF)	UNIT PRICES	X BASE BID LENGTH	X BASE BID OBSTRUCTION
42" diameter		Condition #1	\$ _____	\$ _____	\$ _____
		Condition #2	\$ _____	\$ _____	\$ _____
		Condition #3	\$ _____	\$ _____	\$ _____
		Condition #4	\$ _____	\$ _____	\$ _____

DRILLED PIERS	BASE BID LENGTHS		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #1 UNIT PRICE		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #3 UNIT PRICE
	TOTAL LENGTH (LF)	LENGTH OF OBSTRUCTION* (LF)	UNIT PRICES	X BASE BID LENGTH	X BASE BID OBSTRUCTION
48" diameter		Condition #1	\$ _____	\$ _____	\$ _____
		Condition #2	\$ _____	\$ _____	\$ _____
		Condition #3	\$ _____	\$ _____	\$ _____
		Condition #4	\$ _____	\$ _____	\$ _____

UNC Charlotte Union Deck Expansion

SKA Project No. 160367.1

SCO ID # 16-15657-02A

CD Submittal 2017-02-27

DRILLED PIERS	<u>BASE BID LENGTHS</u>		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #1 UNIT PRICE		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #3 UNIT PRICE	
	TOTAL LENGTH (LF)	LENGTH OF OBSTRUCTION*	UNIT PRICES	X BASE BID LENGTH	X BASE BID	OBSTRUCTION
54" diameter		Condition #1	\$ _____	\$ _____	\$ _____	
		Condition #2	\$ _____	\$ _____	\$ _____	
		Condition #3	\$ _____	\$ _____	\$ _____	
		Condition #4	\$ _____	\$ _____	\$ _____	

DRILLED PIERS	<u>BASE BID LENGTHS</u>		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #1 UNIT PRICE		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #3 UNIT PRICE	
	TOTAL LENGTH (LF)	LENGTH OF OBSTRUCTION*	UNIT PRICES	X BASE BID LENGTH	X BASE BID	OBSTRUCTION
60" diameter		Condition #1	\$ _____	\$ _____	\$ _____	
		Condition #2	\$ _____	\$ _____	\$ _____	
		Condition #3	\$ _____	\$ _____	\$ _____	
		Condition #4	\$ _____	\$ _____	\$ _____	

DRILLED PIERS	<u>BASE BID LENGTHS</u>		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #1 UNIT PRICE		TOTAL BASE BID AMOUNT FOR EACH SIZE OF DRILLED PIER = CONDITION #3 UNIT PRICE	
	TOTAL LENGTH (LF)	LENGTH OF OBSTRUCTION*	UNIT PRICES	X BASE BID LENGTH	X BASE BID	OBSTRUCTION
72" diameter		Condition #1	\$ _____	\$ _____	\$ _____	
		Condition #2	\$ _____	\$ _____	\$ _____	
		Condition #3	\$ _____	\$ _____	\$ _____	
		Condition #4	\$ _____	\$ _____	\$ _____	

* The length of obstruction called for on the Contract Documents is included in the Total Base Bid lengths for each size of drilled piers.

- C. In addition to the Unit Prices for Conditions #1, #2, #3, and #4, should the Contractor be ordered to perform work over and above that required by the Contract Documents or should he be ordered to omit work required by the Contract Documents, the Contractor will be paid an extra or the Owner credited, as the case may be, on the basis of the

following unit prices. These prices shall include all overhead and profit.

Bells added \$_____ per cubic yard

2" test holes in excess or less than that called for \$_____ per linear foot

Additional or less reinforcing steel \$_____ per ton

- D. The credit for any drilled pier that is omitted will be determined by multiplying the unit price established in the Bid Form for Condition #2 by the 75% of the specified length and the unit price for Condition #1 times the 25% of the specified length.
- E. The extra for any drilled pier that is added will be determined by multiplying the unit price for Condition #1 for the type of the drilled pier that is installed times the actual installed length of the drilled pier.

4.04 BASIS OF BID AND PAYMENT:

- A. Base Bids shall be based on drilled piers of the types shown on the Drawings being founded at the elevations specified, including test holes and equipment of the types and sizes specified. However, the Drilled Pier Inspector will exercise the option of founding the drilled piers at higher or lower elevations, depending on the nature and bearing value of the material encountered. Founding of piers at higher elevations shall be approved by the Architect in writing. The Drilled Pier Inspector may also exercise the option of increasing the shaft diameter, or adding bells, where bearing values of materials encountered vary from the estimated bearing values used in the design. Adjustments in the Contract Price will be made on the increase or decrease of each individual drilled-pier length based on the Unit Price established in the Bid Form for each specified drilled-pier length.
- B. If the drilled-pier shafts are increased in diameter by direction of the Architect or his representative, payment will be made for the larger-size drilled pier in accordance with the Unit Prices established in the Bid Form.
- C. If drilled-pier shafts are drilled prior to an increase in shaft diameter and larger shafts are required to be drilled, the Contractor will be paid for the length of shaft drilled, but not poured, on the basis of the Unit Prices established in the Bid Form less the cost of concrete required in the shaft drilled, but not poured.
- D. Obstructions will be paid for on the basis of the Unit Prices established in the Bid Form for each individual drilled-pier size. From the point of auger refusal, the neat-line area of the drilled pier (specified size), including any voids and soft material that may be intermixed with the rock, will be computed as rock. Where possible, normal drilling operations shall be continued after the obstruction has been removed and the Drilled Pier Inspector has determined by measurement the length and depth of the obstruction.
- E. If any drilled pier is founded more than 25% of the specified Base Bid length below the plan bottom elevation, the portion that is more than 25% of the specified Base Bid Length

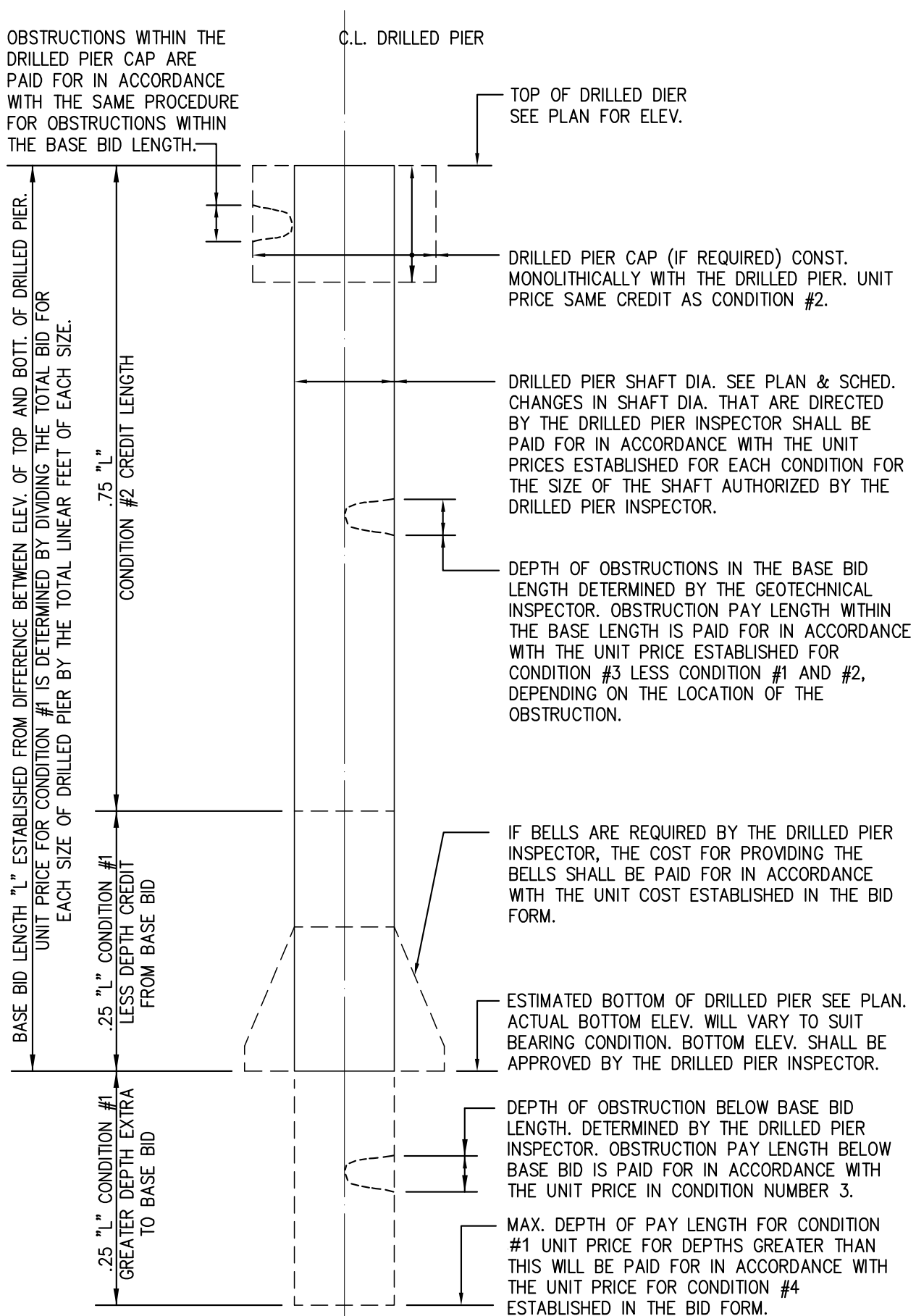
UNC Charlotte Union Deck Expansion

SKA Project No. 160367.1

SCO ID # 16-15657-02A

CD Submittal 2017-02-27

- below the plan elevation will be paid for in accordance with the quoted unit price.
- F. If any additional piers are ordered, payment therefore will be made as specified herein. This additional volume will be set aside and not used to adjust the total job bid volume.



EXPLANATION OF BASE BID AND UNIT PRICES FOR DRILLED PIERS

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