

ADDENDUM

To the Construction Documents for the:

Project:	South Cary Water Reclamation Facility – Maintenance Facility with Solar		Addendum # <h1>03</h1>	
Owner:	Town of Cary			
Owner ID No.:	SW-3512			
DKA Project No.:	2403			
Prepared By:	Chad Volk	Bid Documents Issue Date:		01/13/2025

The date of issuance of this addendum is 2/6/2025. All conditions of the addendum are in effect as of this date. Bidders are hereby informed that the following additions, deletions, changes and/or clarifications supersede and supplement the Contract Documents for the above referenced project.

Each bidder shall be responsible for notifying his subcontractors and/or vendors of the contents of this Addendum. The items included in this Addendum are for all Contractors as the items relate to their respective trades.

From:	Chad Volk
Transmitted to:	Town of Cary, Design Team, all current Plan Holders
Total Number of Pages:	130 pages

Important Announcements & Reminders:

1. Bid Opening date has been changed to Tuesday February 18, 2025 at 2:00PM. Bids will be publicly opened promptly at 2:00PM at William Garmon Operations Center, Room Ops A Central Conference Room, Building A, 400 James Jackson Ave, Cary, NC 27513.
2. The last day for submitting questions was Wed Feb 5 at 5PM. Out of fairness to all bidders, any questions submitted after 5PM on Wed Feb 5 will not be answered. Out of fairness to all bidders, no further questions can be submitted at this time.

Questions and Clarifications:

3. The Build America Buy America (BABA) Act does NOT apply to this project.
4. This project is not receiving any State and/or Federal funding assistance.
5. The GC is responsible for providing the Builder’s Risk policy. All insurance requirements are included in the attached updated version of General Conditions of the Contract. Refer to Article 11 for all insurance requirements. The attached updated General Conditions shall replace the General Conditions included in the Bid Documents.

6. The Owner's protocol for assessing Liquidated Damages:
 - a. Owner may assess Liquidated Damages in the amount of \$1,500 per calendar day (including Holidays) starting the day after the contractual date of Substantial Completion if the Architect determines that the project is not Substantially Complete.
 - b. Owner may assess Interim Liquidated Damages in the amount of \$5,000 per calendar day (including Holidays) if the Architect determines that the project is not Substantially Complete on the 31st day after the contractual date of Substantial Completion.
 - c. LD's and Interim LD's shall not be assessed concurrently.
7. ICS is an approved PEMB supplier.
8. Vulcan Steel is an approved PEMB supplier.
9. STAR Building Systems is an approved PEMB supplier.
10. Rigid Buildings is an approved PEMB supplier.
11. Allied Buildings is an approved PEMB supplier.
12. Qcell Q.PEAK DUO XL-G11S.3/BGF 585W is an approved alternative solar module, as long as it meets the following conditions: The substituted array must use a module from the approved list of manufacturers, be rectangular in shape, meet the required setbacks, and have a total wattage of at least 105 kW DC.
13. Split-face block shall be raw (gray) and all exterior and interior faces shall be field primed and painted. Color shall be selected by Architect and Owner. Integrol colored CMU is not included in the scope of this project.
14. Interior painting scope shall include the following: all exposed primary steel members of PEMB, any steel member not concealed by the insulated liner system, and CMU walls. At all interior joints between the top of painted CMU and bottom of insulation wall liner, GC shall install backer rod and acrylic latex joint sealant (color white) to provide a finished look between the CMU and the wall liner system.
15. Conduit is not required to be concealed in masonry walls. All exposed surface mounted conduit is not required to be painted.
16. Bollards are not required to be installed on the inside of the building, only the outside as indicated on the floor plan.
17. All wall louvers shall be coordinated to be integrated into the SF2 and SF3 translucent panel frames.
18. The masonry wall separating Warehouse 100 and Storage 105 shall be 12'-0" tall from finished floor to top of wall. Top CMU course shall be an 8" deep bond beam reinforced with (2) #4 reinforcing bars. The bond beam shall run the full length of the wall. This wall has been designed to be cantilevered from the foundation and does not require any wall bracing.
19. There are no fire rated wall or floor/ceiling assemblies in the scope of the project.
20. The mechanical platform above the office area is part of the base bid scope of work. The mechanical platform concrete slab is supported without the PEMB framework. The four CMU walls and steel supporting members shown

on S111 will be the support required for the concrete slab. All this work is in the base bid, there is no Alternate or Allowances associated with the mechanical platform.

21. All interior and exterior concrete slab to CMU wall conditions shall receive joint sealants at all expansion joints.
22. The interior concrete slab shall be sealed with a clear water-based sealer such as H&C Clarisheid Water-Based Wet-Look Concrete Sealer, or similar.
23. The 60 CY quantity for concrete footings as stated in the Allowances is in addition to the total CY in case the final design calls for even larger footings that what is called for on the structural drawings. The 60 CY does not represent the total expected amount of concrete for the footings. GC shall include the cost of the 60 CY allowance of concrete for footings in the base bid amount and provide a unit cost per CY for any overage above 60 CY.
24. The foundation anchor bolts for the PEMB columns are NOT part of the concrete footing design allowance. The PEMB designer is responsible for the anchor bolt design.
25. Regarding the lawn restoration requirements for the new underground electrical data & power outside of the fenced work area to the Existing Reclaim Building, the GC shall refer to trenching & backfill details for all new underground electrical data & power work. Existing striped topsoil may be re-used; however, additional topsoil may be required to account for settling of the trench section in order to restore to existing grade and avoid ponding. Seeding and straw to be in accordance with Planting specifications.
26. Regarding where the building foundation is to discharge, the GC shall extend the foundation drain away from building and daylight pipe to provide positive drainage. The proposed pipe shall be extended on the south or east side of the new building near the existing perimeter fence or extend past the fence and buried a minimum of 24-inches below grade so pipe is not disturbed or crushed by vehicular/maintenance traffic. The end of the pipe shall include rip-rap stone to avoid erosion. GC shall coordinate with Owner prior to installation.
27. All downspouts shall spill out above grade. No cast iron downspout boots are required and there is no storm piping in the scope of the project.
28. Regarding any additional sanitary fees from the local AHJ for the private tap of the 4" sanitary due to "increased usage", all existing sanitary sewer lines are deemed private within the facility and should not warrant a tap or other impact fee. GC shall coordinate schedule of service connection with Owner.
29. Regarding the concrete apron assembly (ie. thickness of subbase, thickness of typ. SOG, thickness of thickened edges, reinforcing), all of this information is shown on the 'Heavy Duty Concrete Pavement' dimensions table and Concrete Apron detail on sheet C801.
30. Regarding a stone specification that is to be used for Gravel Band around the building, the gravel band shall be #57 washed stone with a stone size of 1 ½ to 1-inches. Stone shall be in accordance with AASHTO standards and contain no fines.
31. The 305-day construction duration includes time for the design, permitting, fabrication, delivery, and erection of the pre-engineered metal building.
32. Temporary power and temporary water will be made available to the GC.

33. There are no DDC Controls scope for this project. There is no BDA required for this project.
34. The existing 2000 amp switchboard and Panel RC referenced on the Power Riser Diagram on drawing sheet E200 are located in the existing 1200 Building (also known as Building J). They are located in the same room in close proximity to each other. The 1200 Building (Building J) is located approximately 320 feet due north of the north side of the existing Reclaim Building. Both of these buildings were available for viewing during the Pre Bid Meeting.
35. All conduit related to the switchboard in the existing electrical room shall be EMT conduit per spec section 260545.
36. It is preferred that plumbing vents discharge through the side wall of the building in lieu of venting through the roof.
37. Regarding the roof assembly/construction, the roof assembly design has been modified and the correct roof assembly was included in Addendum 1. Refer to updated details G1, E1, and E4 on sheet A120 that was included in Addendum 1.
38. The total weight of the solar panel array is 13,612 pounds. The PEMB designer shall design the roof to support an additional 3 psf to account for the solar panels. The PV solar panel loads for the system used as the basis of design are included in the attached Iron Ridge Racking Report. The Iron Ridge Racking Report is an overall summary of the solar array and associated rail support system. The PEMB supplier shall be responsible for providing all structural girts/supports to accommodate the roof and the solar panel array. The GC is responsible for ensuring the building will support the loads from the PV system as proposed in their bid package and any structural engineering that may be required for permitting.
39. Regarding the electrical work (wiring, devices, etc) related to the Solar Panels, refer to drawing sheet E200 which provides key notes that describes the Owner's Scope of Work and the PV Contractor's Scope of Work.
40. Horizontal Louver Blinds shall be provided for (3) SF1 window types in the Office area only.
41. Regarding the structural load and wind pressure requirements associated with the translucent fiberglass sandwich panels, the manufacturer's panel design shall accommodate the industry standard to meet the basic wind speed of 115 mph.

Specifications:

1. Specification Section 00300 BID PROPOSAL: Added "Unit Prices" form (page 5). See attached updated Bid Proposal. This Bid Proposal form shall be used for your bid packages.
2. Specification Section 00700 General Conditions of the Contract: The current AIA Document A201-2007 General Conditions shall be replaced in its entirety with the attached version of the General Conditions.

Drawings:

1. Sheet A311, revised Front Canopy Detail A1. See attached revised A311 sheet.

END OF ADDENDUM

Attachments:

Current Bidders and Planholders List

Specification Section 00300 BID PROPOSAL

Specification Section 00700 General Conditions of the Contract

Geotechnical Report of Subsurface Investigation

Iron Ridge Racking Report for Solar Array at SCWRF

Sheet A311 (revised)

BID REGISTER



DAVIS KANE
ARCHITECTS, PA
503 Oberlin Road | Suite 300
Raleigh, NC 27605 | 919.833.3737

Project Contact: Chad Volk

Email: CVolk@daviskane.com

Project:	South Cary Water Reclamation Facility with Solar
Owner:	Town of Cary
Owner/SCO ID No:	SW - 3512
DKA Project No:	2403
Bid Due Date & Time:	02/18/25 at 02:00pm
Bid Receiving Location:	William Garmon Operations Center, Room Ops A Central Conference Room, Building A, 400 James Jackson Ave, Cary, NC 27513
PreBid Mtg Date & Location:	01/28/25 at 11:00am at 4900 W Lake Rd, Apex NC 27539

BID TYPE: _____ INVITED _____ PREQUALIFICATION _____ OPEN

ADDENDA DATES 1. 1/29/25 2. 2/4/25 3. 2/6/25 4. _____ 5. _____

ADDENDA:					RECIPIENT	REC'D BID DOCUMENTS VIA?	BIDDING AS A GC?	ATTENDED PREBID?
1	2	3	4	5				
X	X				Riggs-Harrod Builders, Inc. 1117 E Geer Street, Durham, NC 27704 Tim Cothran PH: 919-687-0111 tcothran@riggsharrod.com	Y	EMAIL / SHAREFILE	Y
X	X				Daniels and Daniels Construction Co., Inc. P.O. Box 10337, Goldsboro, NC, 27532 Erik Barrow / Josh Mozingo 919-778-4525 Erikb@danddcc.com estimating@danddcc.com	Y	EMAIL / SHAREFILE	Y
X					S & S Industrial Corp 2223 US 64 E, Asheboro NC, 27203 Brandon Sinnamon 336-521-4550 brandon@ssicorporationnc.com	Y	EMAIL / SHAREFILE	
X	X				Shook Construction 3471 Apex Peakway, Apex, NC 2750 James Magda/ Brad Klisares/ Ryan Levesque 919-290-8151 jmagda@shookconstruction.com bklisares@shookconstruction.com rlevesque@shookconstruction.com	Y	DODGE/ Cary Plan rooms	Y
X	X				Engineered Construction Company 900 Paverstone Drive Raleigh, NC 27615 Scott D. Dawson, Sr. 919.954.9090 sdawsonsr@engrconst.com	Y	EMAIL / SHAREFILE	Y
X					Plan Hub 1665 Palm Beach Lakes Blvd, West Palm Beach, FL 33401 Keith Trudel 561-830-6738 ktrudel@planhub.com	Y		
X	X				H. G Reynolds P.O Box 209 Henderson, NC 27536 Jesse Hill	Y	EMAIL / SHAREFILE	

				252-492-3071	hill@hgreynolds.net					
X	X			Berry Building Group 134 N Main St, Six Mile, SC 29682 Jason Knoernschild 864-868-2811	jasonk@berrybg.com					Y
X	X			Salisbury & Moore 8320 Litchford Rd Suite 124, Raleigh, NC 27615 Gus Mixon 919-930-8770	Gus.mixon@salisburymoore.com					Y
X	X			Diamond Contracting 285 Shipwash Dr # 101, Garner, NC 27529 Brian Settle 919-661-1401	Brian.settle@diamondcontracting.com					Y
X				BAR Construction 611-A Industrial Ave.Greensboro, NC 27406 Chad Hensley 336-274-2477	bids@barconstruction.com					Y
X	X			West Contractors Justin West	justinwest@west-contractors.com					Y
X	X			Scotia Construction 404 E Chatham St, Cary, NC 27511 Garrett Hodges 919-467-0293	Estimating@scotiaconstructioninc.com					Y
X				Summa G.C. 6003 Chapel Hill Rd #101, Raleigh, NC 27607 Alfonso Vergara 919-977-0020	Alfonso.vergara@summagc.com					Y
X	X			CMC Building, Inc 5670 Old Lake Rd, Bolton, NC 28423 Parin Bodiwala / Bruce Presnell 919-321-5018	parin@cmcbuildinginc.com bpresnell@cmcbuildinginc.com					Y

SECTION 00300
BID PROPOSAL ("Proposal")

TO: THE TOWN OF CARY, NORTH CAROLINA ("Owner")

FROM: "BIDDER" _____

ADDRESS _____

DATE OF BID _____, 20__

The Bidder hereby signifies that it is his/her/its intention and purpose to enter into a formal Contract with the Town of Cary, North Carolina, to furnish all labor, materials, tools, equipment, apparatus, supplies, and the like required, and to do all the work necessary, for and because of the construction, erection, and/or installation of the proposed "Project":

**South Cary Water Reclamation Facility – Maintenance Facility with Solar,
TOC Project No. SW - 3512**

for the Town of Cary, North Carolina in accordance with the Contract Documents, including Addenda thereto.** There is deposited, herewith, a certified check in the amount of: _____ Dollars (\$ _____), or a Bid Bond in the amount of five percent (5%) of the total aggregate amount of the Bid, made payable to the Owner, the same to be refunded to the Bidder under the conditions of and in accordance with the terms of this Proposal, which are as follows:

THAT: The Bidder has carefully examined the Plans and Specifications and all other Contract Documents and fully understands them.

THAT: The Bidder has carefully examined the site of the Project and is familiar with the conditions under which the work, or any part thereof, is to be performed and the conditions which must be fulfilled in furnishing and/or installing, erecting or constructing any or all items of the Project.

THAT: The Bidder shall provide all necessary tools, machinery, equipment, apparatus, and all other means necessary to do all the work and shall furnish all labor, materials and all else required to complete such Contract as may be entered into, in the manner prescribed in and in accordance with the terms of the Specifications and the Contract and in accordance with the true intent and meaning thereof, and in accordance with the Plans and/or Drawings and the requirements of the Consulting Engineers under them, in a first class manner.

** Fill in appropriate Addenda number(s): _____

[Terms continued on the following page.]

THAT: The rights of the Owner and the recommendations of the Engineer shall not be questioned in the Award of the Contract.

THAT: It is the intention of the Owner to let contracts on the basis of the Bids received in accordance with G.S. 143-129 and in such manner as the Owner may deem to be for the best interests of the Owner.

THAT: The Owner reserves the right to reject any or all proposals.

THAT: The work under each Section will be awarded under one Contract and that the Owner shall have the right to include such item or items as the Owner may deem to be in the best interests of the Owner.

THAT: On being awarded the Contract, the Bidder shall execute a Performance Bond and a Payment Bond, on the forms included herein, each equal to one hundred percent (100%) of the Contract Price (Contract Sum), as security for the faithful performance of the Contract.

THAT: The Bidder shall submit, in the blank spaces provided, all data, guarantees and other information called for.

THAT: This Proposal shall be signed and submitted in the manner prescribed in the Instructions to Bidders.

THAT: Should this Proposal not be accepted by the Owner, the certified check, in the amount of:

_____ Dollars (\$ _____) or the five percent (5%) Bid Bond, as applicable, deposited herewith shall be returned to the Bidder.

THAT: Should this Proposal be accepted by the Owner and the Bidder fail or neglect to execute the Contract and furnish the required Bonds within ten (10) business days after receiving notifications of the acceptance of the Proposal and/or receipt of the formal Contract and Bond forms, the certified check, in the amount of: _____

_____ Dollars (\$ _____), or the Bid Bond, deposited herewith shall be retained by the Owner as liquidated damages, it being understood that the Owner reserves the right to extend the time allowed for executing the Contract and/or furnishing the Bond in its sole discretion.

THAT: The Bidder shall complete such Contract as may be entered into within the number of consecutive calendar days specified in the Contract from the date of the Notice to Proceed.

THAT: The Bidder proposes to enter into a Contract in accordance with this Proposal, the Plans and Specifications and the Contract Documents included herein, for the prices shown on the following pages.

THAT: The successful bidder shall be required to submit a complete detailed cost breakdown of the Lump Sum Bid Price amount (if project is a lump sum bid) for payment purposes, for approval by the Engineer, prior to the Award of the Contract.

[Terms continued on the following page.]

THAT: It is the intent of these Contract Documents to obtain a Contract based on a Lump Sum Price except where Unit Prices are specifically requested. Where a discrepancy exists between words and numbers in the Bid amount, the written words shall govern. Where a discrepancy exists between unit prices and mathematical computations in the Itemized Proposal, the unit prices and quantities in the Itemized Proposal shall govern.

THAT: The successful bidder shall have all proper Bidder licenses and other applicable licenses required under North Carolina state laws governing their respective trade(s).

THAT: The successful bidder and all subcontractors shall comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, "Verification of Work Authorization," and shall provide documentation or sign affidavits or any other documents requested by the Town of Cary demonstrating such compliance.

THE FOLLOWING FORMS AND DOCUMENTATION SHALL BE COMPLETELY FILLED OUT AND SUBMITTED WITH THE BIDS:

1. Bid Bond (using forms provided on pages 00300-7 and 00300-9) or other allowable bid security;
2. Photocopy of Bidder's North Carolina Contractors License;
3. Enter Contractor's License Number where called for in proposal and on the outside of sealed envelope containing the proposal;
4. Statement of Compliance with requirement of the General Conditions that the Bidder will ensure that at least 20% of the Work is performed with the Bidder's employees (provide statement on bidder's letterhead);
5. Certified List of Major Subcontractors;
6. Certified List of Equipment/Material Manufacturers;
7. Bidder's Certificate as to Organization and Authority;
8. Equal Employment Opportunity Addendum;
9. Qualifications of Bidders;
10. Non-Collusive Affidavit;
11. Nondiscrimination Clause.

BID PROPOSAL
GENERAL CONSTRUCTION
FOR THE

(the "Project")

For the construction of the Project complete as indicated by the Contract Documents (in words and figures):

TOTAL LUMP SUM BID PRICE

_____ Dollars

and _____ Cents (\$ _____)

Bidder _____
(Print)

NOTE: PROPOSAL SIGNATURE REQUIRED ON PAGE 00300-12. ALL PROPOSALS MUST BE PROPERLY EXECUTED TO BE CONSIDERED A VALID BID.

UNIT PRICES

The undersigned quotes for the following unit prices to be utilized in making adjustments to the Contract Sum should the addition or omission of work required by the Contract Documents be necessary. Amount listed for unit prices will apply throughout the life of the Contract. Refer to specification "Section 012200 – Unit Pricing."

UNIT PRICE	ITEM DESCRIPTION	SECTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
SITE FURNISHINGS						
Q-C1	Rock removal in Open Areas (Mass Rock) and disposal off-site.	01200	X	10 CY		
Q-C2	Rock Removal in Trenches and Pits and Disposal Off-Site	012100	X	20 CY		
Q-C3	Unsuitable Soils Removal and Disposal Off-Site	012100	X	300 CY		
Q-C4	Replacement of Removed Rock or Unsuitable Soils with On-Site Suitable Soil In-Place	012100	X	50 CY		
Q-C5	Replacement of removed rock or unsuitable soils with Aggregate Base Course in-place.	012100	X	200 CY		
Q-C6	Replacement of Removed Rock or Unsuitable Soils with No.57 Washed Stone In-Place	012100	X	50 CY		
Q-C7	Biaxial Geo-Grid In-Place	012100	X	100 SY		
Q-S1	PEMB Footing Concrete	012100	X	60 CY		
Q-S2	PEMB Footing Reinforcing	012100	X	3,000 LBS		

CERTIFIED LIST OF MAJOR SUBCONTRACTORS

The Bidder, as part of the procedure for the submission of Bids on the Project, submits the following list of Major Subcontractors to be used in the performance of work to be done on said Project. Changes to this list after the Bid opening shall only be as approved by the Owner upon request by the Bidder or as required by the Owner based upon review of Bidder's submittals:

<u>SUBCONTRACTOR</u>	<u>SUBCONTRACTOR'S NAME AND ADDRESS</u>
<u>PLUMBING:</u>	_____
<u>HVAC:</u>	_____
<u>ELECTRICAL:</u>	_____
<u>SOLAR PANELS:</u>	_____
<u>SOLAR INVERTOR:</u>	_____

It is understood and agreed that, if awarded a Contract, the Bidder shall not make any additions, deletions or substitutions to this certified list without the consent of the Owner.

CERTIFICATION AFFIDAVIT

THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER UNDERSTAND AND AGREE THAT, IF AWARDED A CONTRACT, THIS CERTIFICATION SHALL BE ATTACHED THERETO AND BECOME A PART THEREOF.

[If Bidder is not an individual, enter entity name here]

By: _____
(Signature)

NAME OF SIGNER: _____
(Please Print or Type)

TITLE OF SIGNER: _____
(Please Print or Type)

DATE: _____

CERTIFIED LIST OF EQUIPMENT/MATERIAL MANUFACTURERS

The Bidder, as part of the procedure for the submission of Bids on the Project, submits the following list of Equipment/Materials Manufacturers to be used in the performance of work to be done on said Project. The list of Manufacturers and all equipment/materials furnished shall be based on requirements of the Contract Documents. Changes to this list after the Bid opening shall only be as approved by the Owner upon request by the Bidder or as required by the Owner based upon review of Bidder's submittals:

<u>EQUIPMENT/MATERIALS</u>	<u>MANUFACTURER</u>
Solar Invertor _____	Solar Edge _____
Solar Panels _____	Q-Cell, REC, TRINA, Mission Solar _____
_____	_____
_____	_____

It is understood and agreed that, if awarded a Contract, the Bidder shall not make any additions, deletions or substitutions to this certified list without the consent of the Owner. Failure to identify a manufacturer for any or all of the items listed shall constitute an entry of one of the manufacturers listed in its respective technical specification.

CERTIFICATION AFFIDAVIT

THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER UNDERSTAND AND AGREE THAT, IF AWARDED A CONTRACT, THIS CERTIFICATION SHALL BE ATTACHED THERETO AND BECOME A PART THEREOF.

[If Bidder is not an individual, enter entity name here]

By: _____
(Signature)

NAME OF SIGNER: _____
(Please Print or Type)

TITLE OF SIGNER: _____
(Please Print or Type)

DATE: _____

BID SECURITY:

Accompanying this Proposal is a (1) _____ in the amount of
(2) _____ Dollars
(\$ _____).

NOTE: (1) Insert the words “bank draft,” “certified check,” “bid bond”, or “cashiers check”, as the case may be.

(2) Amount must be equal to at least five percent (5%) of the total Bid.

BIDDER’S LICENSE:

The Bidder certifies that (he/she/it) is licensed as a Bidder under the specific North Carolina state law regulating his/her/its particular trade and that the number of the license under which he/she/it now operates is _____.

BIDDER’S CERTIFICATION AS TO ORGANIZATION AND AUTHORITY:

The Bidder certifies that the Affidavit of Organization and Authority, like the other documents attached hereto, form an integral part of the Proposal, and the Bidder acknowledges that the Owner will rely on the information provided therein in reviewing the Proposal and awarding a Contract.

LIQUIDATED DAMAGES:

The Bidder agrees, further, that the Owner may retain those amounts indicated in the Contract from the amount of compensation due the Bidder, under the terms of the Contract, for each and every day that the work remains incomplete and/or unsatisfactory beyond the completion date(s) specified in the Notice to Proceed. This amount is agreed upon as the proper measure of liquidated damages the Owner will sustain, per day, by the failure of the Bidder to complete the work within the stipulated time, and it is not to be construed in any sense as a penalty.

The Bidder shall not have or bring a claim against the Owner, or raise as a defense against the imposition of liquidated damages, other construction purportedly impeding Bidder’s progress or timely project completion.

(SIGNATURE PAGE)

Dated _____, 20__.

Bidder—Legal Entity (SEAL)

By: _____ (SEAL)
(SIGN HERE)

SEAL-if corporation

Printed Name

Address

() _____
Telephone No.

Subscribed and sworn to before me this ____ day of _____, 20__

Notary Public

My Commission Expires:

BID BOND

This is a Bid Bond that is subject to the provisions of Chapter 143, Article 8, Section 129(b) of the North Carolina General Statutes.

This Bid Bond is executed on _____, 20__.

The name of the PRINCIPAL is _____ (1)

_____ (2)

The name of the SURETY is _____

The TOWN OF CARY, NORTH CAROLINA is the OWNER.

The amount of the Bond is _____

_____ (Dollars) (\$_____)

KNOW BY ALL MEN BY THESE PRESENTS, the Principal and Surety above named are hereby held and firmly bound unto the above named OWNER hereinafter called the OWNER in the penal sum of the amount stated above in lawful money of the United States, for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of the above obligation is such that whereas the Principal has submitted to the OWNER a certain Bid Proposal, attached hereto and hereby made a part hereof to enter into a Contract in writing, for the construction of:

NOW, THEREFORE

- (a) If said Bid Proposal shall be rejected; or in the alternate,
- (b) If said Bid Proposal shall be accepted and the Principal shall execute and deliver a Contract in the form of Contract attached hereto (properly completed in accordance with said Bid Proposal) and shall furnish a bond for his faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid Proposal, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its Bid Bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid Proposal; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

ATTEST:

(Principal) Secretary
(SEAL)

Principal

BY: _____ (3)

(Address)

Witness as to Principal

(Address)

ATTEST:

Surety

N. C. Resident Agent
(SEAL)

By: _____

(Name) (4)

(Address)

(Phone Number)

Witness as to Surety

(Address)

- (1) Insert the correct name of Principal.
- (2) Insert whether the Principal is a corporation, a partnership, a limited liability company or an individual.
- (3) If Principal is a partnership, all partners should execute the Bid Bond. If Bidder is a limited liability company, all managers (or all members, if the company is member-managed) should execute the Bond.
- (4) Provide contact name, address and phone number for bid bond surety.

**POWER OF ATTORNEY
(Attach)**

BIDDER'S CERTIFICATES
AFFIDAVIT OF ORGANIZATION AND AUTHORITY
SWORN STATEMENT

STATE OF _____)

COUNTY OF _____)

_____ being first duly sworn on oath deposes and says that the Bidder on the attached Bid Proposal is organized as indicated below and that all statements herein made are made on behalf of such Bidder and that this deponent is authorized to make them.

(Fill Out Applicable Paragraph)

CORPORATION:

The Bidder is a corporation organized and existing under the laws of the State of _____, it operates under the legal name of _____, and the full names of its officers are as follows:

President _____
Secretary _____
Treasurer _____

and it does _____ have a corporate seal. The _____ is/are authorized to sign construction proposals and contracts for the company by action of its Board of Directors taken _____, a certified copy of which is hereto attached. (Strike out this last phrase if not applicable.)

PARTNERSHIP:

The Bidder is a [limited/general] partnership consisting of individual/corporate partners as follows:

<u>General Partners</u>	<u>Limited Partners</u>
_____	_____
_____	_____
_____	_____

The partnership does business under the name of : _____

LIMITED LIABILITY COMPANY:

The bidder is a [member-managed/manager-managed] limited liability company consisting of the following individual/corporate members/managers:

<u>Managers</u>	<u>Members</u>
_____	_____
_____	_____
_____	_____

INDIVIDUAL:

The Bidder is an individual whose full name is:

_____ and if operating under a trade name, said trade name is as follows:

The business address of the Bidder is:

Its phone number is: _____

The contact person for this Proposal is:

Bidder

By: _____

Subscribed and sworn to before me this _____ day of _____, 20__.

Notary Public

County

My Commission Expires:

EQUAL EMPLOYMENT OPPORTUNITY ADDENDUM (“ADDENDUM”)

During the performance of the Contract the Bidder agrees as follows:

- a. The Bidder shall not discriminate against any employee or applicant because of race, color, religion, sex, or national origin. The Bidder shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to race, color, religion, sex, or national origin. Such action shall include but not be limited to the following: employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Bidder agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of the nondiscrimination clause.
- b. The Bidder shall, in all solicitations or advertisements for employees placed by or on behalf of the Bidder, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- c. The Bidder shall send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract understanding, a notice, to be provided, advising the labor union or worker’s representative of the Bidder’s commitments under the Equal Employment Opportunity Section of the Contract, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. In the event of the Bidder’s noncompliance with the nondiscrimination clauses of the Contract or with any of such rules, regulations, or orders, the Contract may be canceled, terminated, or suspended in whole or in part and the Bidder may be declared ineligible for further OWNER contracts.
- e. The Bidder will include the provisions of this Addendum in every subcontract or purchase order unless exempted by rules, regulations, or orders of the OWNER so that such provisions will be binding upon each Subcontractor or vendor.

(Use the following form for execution by a CORPORATION):

ATTEST: _____
(Assistant) Secretary

_____ Corporate Name

BY: _____
(Vice) President

(CORPORATE SEAL)

(Use the following form for execution by a PARTNERSHIP):

_____ (SEAL)
Partnership Name

BY: _____ (SEAL)
General Partner

(Use the following form for execution by a LIMITED LIABILITY COMPANY):

_____ (SEAL)
Company Name

BY: _____ (SEAL)
Manager/Member

(Use the following form for execution by an INDIVIDUAL):

BY: _____ (SEAL)

WITNESS:

Subscribed and sworn to before me this _____ day of _____, 20__.

Notary Public

County

My Commission Expires:

QUALIFICATIONS OF BIDDERS

In order to assist the Owner in determining whether the Bidder is qualified to perform the Work, as set forth in the Contract Documents, the Bidder shall furnish the following information.

1. List of references who are qualified to judge as to his financial responsibility and his experience in work of similar nature to that bid upon:

2. List of previous contracting experience, including dollar values of contracts:

3. List of facilities or equipment that is available for use:

4. Name, residence, and title of the individual who will give personal attention to the work:

5. Financial Statement:

ASSETS

CURRENT ASSETS:

Cash \$ _____

Notes and Accounts Receivable _____

Inventories _____

PLANT ASSETS:

Real Estate \$ _____

Machinery _____

Good Will, Patents, etc. _____

\$ _____
Total Assets

LIABILITIES:

Notes Payable	\$ _____	
Accounts Payable	_____	
Accrued Wages	_____	
Other Liabilities	_____	\$ _____
		Total Liabilities
	EXCESS OF ASSETS OR NET WORTH	\$ _____

6. List all Claims, prior and pending, against the Bidder by the Town of Cary, including the resolution of such Claims, if any:

<u>Claim</u>	<u>Date of Claim</u>	<u>Resolution, if any</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

The existence of unresolved claims against Bidder may disqualify the Bidder from making a Bid Proposal and entering into a Contract with the Town of Cary.

Notes:

- A. The above is a suggested form for the Financial Statement, but the Bidder is not required to follow the form explicitly. The Financial Statement submitted must clearly show to the satisfaction of the Owner the Bidder's current financial condition. The Owner reserves the privilege of requiring additional information as to financial responsibility of the Bidder prior to awarding Contract.

- B. Bidder shall attach additional pages, if necessary, in order to complete the required information.

- C. The Bidder shall submit detailed information required for above Items 1 through 4 with his Bid Proposal package. The information required under Items 5 and 6 may be furnished after Bid Proposals are received if required by the Owner and Engineer to evaluate the qualifications of a prospective Bidder.

NON-COLLUSIVE AFFIDAVIT

State of _____)
County of _____) ss.

_____ being first duly sworn,
deposes and says that:

- (1) He/she is the _____
(Owner, Partner, Officer, Representative or Agent)
of _____, the BIDDER that has submitted the attached BID PROPOSAL;
- (2) He is fully informed respecting the preparation and contents of the attached BID PROPOSAL and of all pertinent circumstances respecting such BID PROPOSAL;
- (3) Such BID PROPOSAL is genuine and is not a collusive or sham BID PROPOSAL;
- (4) Neither the said BIDDER nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, have in any way colluded, conspired, connived or agreed, directly or indirectly, with any other BIDDER, firm, or person to submit a collusive or sham BID PROPOSAL in connection with the Contract for which the attached BID PROPOSAL has been submitted; or to refrain from bidding in connection with such Contract; or have in any manner, directly or indirectly, sought by agreement or collusion, or communication, or conference with any BIDDER, firm, or person to fix the price or prices in the attached BID PROPOSAL or of any other BIDDER, or to fix any overhead, profit, or cost elements of the BID PROPOSAL price or the BID PROPOSAL price of any other BIDDER, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against The Town of Cary, or any person interested in the proposed Contract;
- (5) The price or prices quoted in the attached BID are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the BIDDER or any other of its agents, representatives, owners, employees or parties in interest, including this affidavit.

BIDDER
BY _____
ITS _____
(Title)

Subscribed and sworn to before me this _____ day of _____, 20__.

Notary Public County

My commission expires _____

END OF AFFIDAVIT

NONDISCRIMINATION CLAUSE

It is specifically agreed as part of the consideration of the signing of this Bid Proposal, and the resulting execution of a Contract, that, to the extent permitted by law, the parties hereto, their agents, officials, employees, contractors, agents, successors, or permitted assigns shall not discriminate against any member of a protected class as defined by federal, state, or local law, including Wake County Code of Ordinances Section 34.01.

This provision shall be binding on the successors and assigns of the parties hereto with reference to the subject matter of the Contract.

(Use the following form for signatures by a CORPORATION):

ATTEST: _____ (Assistant) Secretary _____ (Printed Name) (Corporate Seal)	_____ Corporate Name BY: _____ (Vice) President _____ (Printed Name)
--	---

(Use the following form for signatures by a PARTNERSHIP):

_____ WITNESS _____ (Printed Name)	_____ Partnership Name (SEAL) BY: _____ (SEAL) General Partner
---	---

(Use the following form for signatures by a LIMITED LIABILITY COMPANY):

WITNESS

(Printed Name)

Company Name
(SEAL)

BY: _____
Manager/Member
(SEAL)

(Use the following form for signatures by an INDIVIDUAL):

(SEAL)

(Printed Name)

WITNESS

(Printed Name)

Subscribed and sworn to before me this _____ day of _____, 20__.

Notary Public

County

My Commission Expires:

NOTICE OF AWARD

TO: CONTRACTOR/BIDDER: _____

ADDRESS: _____

FROM: _____

OWNER: Town of Cary
Cary, North Carolina

PROJECT: _____

You are hereby notified that the Owner has considered the Bid Proposal submitted by you for the above-described project in response to its Notice to Bidders dated _____.

It appears that it is to the best interest of said Owner to accept your Bid Proposal in the amount of: _____ Dollars (\$_____). You are therefore hereby notified that your Bid Proposal has been accepted **for South Cary Water Reclamation Facility Maintenance Facility with Solar.**

The Bidder is required by as a condition of its Award of the Contract to execute and deliver the formal Contract with the Owner and to furnish the required Bidder's Performance and Payment Bonds within ten (10) business days from the date of the delivery of this Notice to you.

If you fail to execute said Contract and to furnish said Bonds within ten (10) business days from the date of delivery of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid Proposal as abandoned and to award the work covered by your Bid Proposal to another bidder, or to readvertise the work or otherwise dispose thereof as the Owner may see fit.

Dated this _____ day of _____, 20_____.

Town of Cary, North Carolina

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged this _____ day of _____, 20_____.

Bidder

By: _____

Title: _____

- END OF SECTION -



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General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

South Cary Water Reclamation Facility -
Maintenance Facility with Solar
4900 W. Lake Road, Apex, NC 27539

THE OWNER:

(Name, legal status and address)

Town of Cary
316 N Academy St, Cary, NC 27513

THE ARCHITECT:

(Name, legal status and address)

Davis Kane Architects, PA
503 Oberlin Road
Ste 300
Raleigh, NC 27605

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- 14 TERMINATION OR SUSPENSION OF THE CONTRACT
- 15 CLAIMS AND DISPUTES

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Init.

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 BASIC DEFINITIONS

§ 1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents consist of the Agreement (Section 00500) between the Owner and Contractor (hereinafter the Agreement) and all other documentation executed or issued in connection therewith, including the Invitation to Bid, the Instructions to Bidders, Conditions of the Contract (including these General Conditions of the Contract for Construction, the Supplementary Conditions and any other Conditions to these General Conditions of the Contract for Construction), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement and foregoing documentation and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding requirements.

§ 1.1.2 THE CONTRACT

The Contract Documents form the Contract for Construction (the Contract). The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by separate contractors.

§ 1.1.5 THE DRAWINGS

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

§ 1.1.5.1 Dimensions indicated on the Drawings shall be followed. Do not scale drawings. Conflicts, discrepancies, and omissions shall be resolved prior to ordering or installing materials and equipment.

§ 1.1.5.2 The Contractor shall provide critical clearances, tolerances, and dimensions as indicated on the Drawings. These critical dimensions are not optional. The Architect shall be advised immediately if existing conditions do not permit critical dimension as shown. No consideration will be given any claim based on differences between the actual dimensions and those indicated on the Drawings.

§ 1.1.5.3 Any modifications to the design or Drawings shall be approved by the Architect. The Architect's decision in matters relating to artistic effect and structural integrity will be final if consistent with the intent of the Contract Documents.

§ 1.1.5.4 The Drawings are developed to communicate design intent. Assemblies or components required to achieve this design intent are subject to approval by the Architect.

§ 1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services. Specifications include all Sections included under the Technical Specifications of the Project Manual.

§ 1.1.7 INSTRUMENTS OF SERVICE

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 INITIAL DECISION MAKER

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2 and certify termination of the Agreement under Section 14.2.2. The Initial Decision Maker is the Architect and/or any other party identified by the Owner as the Initial Decision Maker for the Work from time to time.

§ 1.1.9 STANDARD SPECIFICATIONS AND DETAIL

The 'Standard Specifications and Details' shall be the 'Town of Cary Standard Specifications and Details', that have been adopted as of the date of the Invitation to Bid.

§ 1.1.10 NCDOT STANDARD SPECIFICATIONS

The 'NCDOT Standard Specifications' shall be the '*Standard Specifications for Roads and Structures*' and the '*Roadway Standard Drawings*', current edition as of the date of the Invitation to Bid.

§ 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to the Work. In the event of discrepancies between or within Contract Documents, the Contractor shall provide the better quality or greater quantity and shall comply with the more stringent requirements.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 CAPITALIZATION

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 INTERPRETATION

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE

§ 1.5.1 Unless otherwise agreed to be Owner and Architect, the Owner shall be deemed the owner of the Instruments of Service, including the Drawings and Specifications, and will retain all common law, statutory and other reserved rights, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

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§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants.

§ 1.5.3 By entering into the Contract with the Owner, the Contractor represents and warrants:

- .1 That Contractor is experienced in and competent to perform the type of Work required and to furnish the plant, materials, supplies or equipment to be so performed or furnished by it.
- .2 That Contractor is financially solvent, able to pay its debts as they mature, and possessed of sufficient working capital to initiate and complete the Work required under the Contract.
- .3 That Contractor is familiar with all federal, state, county, municipal and department laws, ordinances, permits, regulations and resolutions which may in any way affect the Work or those employed therein, including but not limited to any special laws or regulations relating to the Work or any part thereof.
- .4 That such temporary and permanent Work required by the Contract Documents that is to be done by Contractor will be satisfactorily constructed and fit for use for its intended purpose and that such construction will not injure any person, or damage any property.
- .5 That Contractor has carefully examined the Contract Documents and the Site of the Work and that from its own investigations, it has satisfied itself and made itself familiar with: (1) the nature and locations of the Work; (2) the character, quality and quantity of surface and subsurface materials likely to be encountered, including, but not limited to all structures and obstructions on or at the Project Site, whether natural or man-made; (3) the character of equipment and other facilities needed for the performance of the Work; (4) the general and local conditions including, without limitation, the climatic conditions, the availability and cost of labor and the availability and cost of materials, tools and equipment; (5) the quality and quantity of all materials, supplies, tools, equipment, labor and professional services necessary to complete the Work in the manner required by the Contract Documents; and (6) all other matters or things which could in any manner affect the performance of the Work.
- .6 That Contractor will fully comply with all requirements of the Contract Documents.
- .7 That Contractor will perform the Work consistently with good workmanship, sound business practice, and in the most expeditious manner, consistent with the best interest of the Owner.
- .8 That Contractor will furnish efficient business administration and experienced superintendents and an adequate supply of workmen, equipment, tools and materials at all times.
- .9 That Contractor has carefully reviewed the Work required and that the Work can be planned and executed in a normal and orderly sequence of Work and reasonably scheduled so as to ensure completion of the Project in accordance with the Contract Documents, allowing for normal and reasonable foreseeable weather, labor and other delays, interruptions and disruptions of the Work.
- .10 That Contractor will complete the Work within the Contract Time and all portions thereof within any required Contract deadlines.
- .11 That the Contract Sum is based upon the labor, materials, systems and equipment required by the Contract Documents, without exception.
- .12 That Contractor will make a good faith effort to utilize minority business enterprises (MBEs) per N.C. General Statutes Section 143-128, et seq., as Subcontractors for the Work.

.13 That Contractor is not at the time of the making of the Contract in dispute with the Town of Cary in connection with any project for which it has performed Work."

§ 1.6 TRANSMISSION OF DATA IN DIGITAL FORM

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Agreement or the Contract Documents.

ARTICLE 2 OWNER

§ 2.1 GENERAL

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

(Paragraph deleted)

§ 2.2.2 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.2.3 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner provided that the Contractor has diligently reviewed the information and has informed the Owner in writing if it has actual knowledge of incorrect information. In any event, the Contractor shall exercise proper precautions relating to the safe performance of the Work.

§ 2.2.4 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.2.4.1 The Owner shall not be responsible for or have control or charge of the construction means, methods, techniques, sequences, or procedures or for safety precautions and programs in connection with the Work, and will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. In no event shall the Owner have control over, charge of, or any responsibility for construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the Work notwithstanding any of the rights and authority granted the Owner in the Contract Documents.

§ 2.2.5 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.3 OWNER'S RIGHT TO STOP THE WORK

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

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§ 2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after service of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect or failure. Such action by the Owner and amounts charged to the Contractor are both subject to prior notice to the Architect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor or surety shall pay the difference to the Owner.

ARTICLE 3 CONTRACTOR

§ 3.1 GENERAL

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.1.4 The Contractor shall be licensed in North Carolina in an amount at least equal to one and one-half (1-1/2) times the total Contract Sum for all of the Work. Contractor shall have and maintain a valid Town of Cary Privilege License to perform the Work.

§ 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall make Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract

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Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect.

§ 3.2.5 Existing Utilities

- .1 The Contractor shall be responsible for the location and verification of all utilities prior to construction, both public and private, within the Site. Prior to commencing construction, the Contractor shall walk the Site verifying the location of all utilities in order to determine which utilities the Contractor may deem to be in conflict with the Work. At the completion of the walk-through, the Contractor shall notify the Architect in writing of any such conflicts. The Contractor shall also attend monthly progress meetings with the Owner or Architect, and utility company representatives if appropriate, to discuss potential and/or existing conflicts on all roadway and utility portions of the Work, unless such meeting is waived for a particular month or for the duration of the Project by the Architect.
- .2 Where existing utilities and structures are indicated on the Drawings, it shall be understood that all of the existing utilities and structures affecting the Work may not be shown and that the locations of those shown are approximate only. It shall be the responsibility of the Contractor to ascertain the actual extent and exact location of the existing utilities and structures. In every instance, the Contractor shall notify the proper authority having jurisdiction and obtain all necessary directions and approvals before performing any Work in the vicinity of existing utilities.
- .3 The Work shall be carried out in a manner to prevent disruption of existing services and to avoid damage to the existing utilities. Temporary connections shall be provided, as required, to ensure that no interruption of existing services occurs. Any damage resulting from the Work shall be promptly repaired by the Contractor at its own expense in a manner approved by the Architect and further subject to the requirements of any authority having jurisdiction. Where it is required by the authority having jurisdiction that such jurisdiction perform its own repairs or have them done by others, the Contractor shall be responsible for the costs thereof.

§ 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any loss or damage arising solely from those Owner-required means, methods, techniques, sequences or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.3.4 The general contractor for the Project (or other contractor specifically identified by the Owner) shall act as the Project Expediter, responsible for preparing the Project schedule, including coordinating the progress schedules of the other prime contractors and their subcontractors, ensuring that each prime contractor and subcontractor adheres to its schedule, and communicating regularly with the Architect or the Owner regarding any concerns that arise during the course of the Project, including, without limitation, the scheduling, adherence to the Drawings, the Specifications and/or the Instruments of Service.

§ 3.3.5 All prime contractors shall be required to cooperate and consult with each other and with the Project Expediter during the construction of the Project. Each prime contractor shall schedule and execute its portion of the Work so as

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to cause the least delay to other contractors. Each prime contractor shall be financially responsible to the other prime contractors for undue delay caused by it to other prime contractors on the Project."

§ 3.4 LABOR AND MATERIALS

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work authorized by the Architect in accordance with Sections 3.12.8 or 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.2.1 After the Contract has been executed, the Owner will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the Specifications.

§ 3.4.2.2 By making requests for substitutions based on Clause 3.4.2.1 above, the Contractor:

- .1 represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;
- .2 represents that the Contractor will provide the same warranty for the substitution that the Contractor would for the product specified;
- .3 certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesign costs, and waives all claims for additional costs related to the substitution that subsequently becomes apparent; and
- .4 agrees that it will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

§ 3.4.3 The Contractor shall ensure that at least 30% of the work is performed with Contractor's employees. The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them. The Contractor shall comply with all applicable laws regarding employment. Whenever Owner notifies Contractor in writing that any person on the Project appears to be incompetent, disorderly, or otherwise unsatisfactory, such person shall be removed from the Project and shall not again be employed on it except with the prior written consent of Owner. No adjustment shall be made in the Contract Sum or the Contract Time on the basis of the removal of such person from the Project.

§ 3.4.4 All construction shall conform (in increasing order of priority in the event of any conflict) to the requirements and dimensions in the Town of Cary 'Standard Specifications and Details', the Code of the Town of Cary, this Contract, the construction plans, and the Specifications. All materials and workmanship, except as otherwise provided herein, shall be in accordance with the latest edition of the North Carolina Department of Transportation 'Standard Specifications for Roads and Structures', and all addenda thereto, and the Town of Cary 'Standard Specifications and Details'.

§ 3.4.5 Delivery of Equipment and Materials. All materials and equipment delivered to the Project site shall be accompanied by certificates, signed by an authorized officer of the supplier, and notarized, guaranteeing that the materials and equipment conform to Specifications requirements. Such certificates shall be immediately turned over to the Architect. Materials and equipment delivered to the Project site without such certificates shall be subject to rejection by the Architect. The Contractor shall ensure that equipment and materials to be incorporated in the Work shall be delivered to the Project site sufficiently in advance of their installation and use in order to prevent delay in the execution of the Work, and that they shall be delivered to the Project site, as nearly as is feasible, in the order required for executing the Work. The Contractor shall provide for continuity of supply to avoid changes of supplies or

manufacturers or changes in brands of materials during the Work. The Contractor shall deliver packaged materials to the Project site in the manufacturer's original, unopened, labeled containers and shall not open such containers until the approximate time for the use of the contents.

§ 3.4.6 Storage and Protection of Equipment and Materials. The Contractor shall protect all equipment and materials from deterioration and damage, whether title to same has passed to the Owner or not. Any equipment or materials of whatever kind that may have become damaged or deteriorated from any cause shall be removed and replaced by new and satisfactory items, at the Contractor's expense, including expenses of labor and materials for such removal and replacement. The Contractor shall store all equipment and materials at the Project site in accordance with the manufacturer's recommendations, as directed by the Architect, and in conformity with applicable statutes, ordinances, regulations and rulings of any public authority having jurisdiction. The Contractor shall store the cementitious and wood materials in dry, weather-tight, ventilated spaces. The Contractor shall store ferrous materials so as to prevent contact with the ground and to prevent rusting and damage from weather. The Contractor shall store masonry materials so as to prevent them from coming in contact with earth or staining materials and shall cover and protect such materials against weather, moisture, neglect and damage. The Contractor shall protect materials and equipment from equipment damage, weather, moisture, neglect, and construction operations. The Contractor shall not store unnecessary materials or equipment on the Project site and shall take care to prevent any structure from being loaded with a weight that may endanger its security or the safety of persons and property. If the Project site is such that equipment and materials cannot be safely stored at the Project site, then the Contractor shall be responsible for locating and providing storage areas for equipment and materials. Such storage shall comply with all applicable statutes, ordinances, regulations and rulings of public authorities having jurisdiction. The Contractor shall timely pay all storage fees for equipment and materials stored off-site.

§ 3.5 WARRANTY

The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.6 TAXES

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect. The Contractor shall provide the Owner monthly, with its Application for Payment, certificates and other supporting data as required by the State of North Carolina to enable the Owner to obtain sales and use tax refunds, including, but not limited to, all Sales Taxes, Use Taxes, Occupational Taxes, Excise Taxes, Social Security Benefits, Unemployment Compensation Taxes, or similar levies on all materials, labor, tools, and equipment furnished under this Contract. Use tax is due on construction equipment brought into North Carolina for use in the performance of the Work (N.C. Revenue Laws G.S. 105-164.4 and 105-164.6). Contractor is also liable for payment of applicable privilege licenses (N.C. Revenue Laws G.S 105-54) and for payment of applicable franchise, corporate income and withholding taxes (N.C. Revenue Laws, G.S. 105-122, 105-123, 105-134, and 105-163.2). The absence of mention of any specific tax herein in no way relieves the Contractor of its obligations to pay the same.

§ 3.7 PERMITS, FEES, NOTICES, LAWS AND REGULATIONS

§ 3.7.1 The Contractor shall secure the building permit and certain other permits and government fees, licenses, and inspections necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required when bids are received or negotiations concluded. Fees for permits issued by the owner will be waived by the Owner when the Owner is the controlling jurisdiction for such permits, fees, inspections and the like. All other items as noted above that are not excluded or not of local nature, and therefore, not covered by the local exclusion, are to be paid by the Contractor. Contractor shall obtain and maintain such permits and licenses in its own name during the performance of the Work. Upon termination of the Contract, Contractor shall assign such permits and licenses required to be maintained thereafter to the Owner.

§ 3.7.2 The Contractor shall comply with and give notices, file annual reports and/or updates and otherwise communicate with governmental agencies as required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work, including, without limitation, in connection with Contractor's role as holder of the permits. If the Contractor fails to give such notices or make such reports or other communication, it shall be liable for and shall indemnify and hold harmless the Owner and the Architect, and their respective employees, offices and agents, against any resulting fines, penalties, judgments, or damages, including reasonable attorney's fees, imposed on or incurred by the parties indemnified hereunder.

§ 3.7.3 If the Contractor observes that portions of the Contract Documents are at variance with applicable laws, Statutes, ordinances, codes, rules and regulations or lawful orders of public authorities, the Contractor shall promptly notify the Architect and Owner in writing. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction. In addition, the Contractor shall promptly pay all fines, fees, civil penalties and the like assessed against the Contractor and/or the Owner by any government unit or agency (including, without limitation, the Owner in its capacity as a municipal corporation) in connection with such violation(s). Contractor shall indemnify the Owner, the Architect, and the municipalities and counties in which Work is being performed, and their officers and agents, against any claim, fee, civil penalty, fine or liability arising from or based on the violation of any law, statute, ordinance, building code, rule or regulation, whether by Contractor or its employees or any of its Subcontractors. No adjustment shall be made in the Contract Sum on the basis of expenditures made by the Contractor under this provision.

§ 3.7.4 **Concealed or Unknown Conditions.** Subsurface information, if provided by the Owner to the Contractor, is provided in good faith for the sole purpose of placing the Contractor in receipt of all information available to the Owner, and in no event is to be considered a part of the Contract Documents. In making such data available, the Owner makes no guarantee, either expressed or implied, as to its accuracy or to the accuracy of any interpretation thereof. If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 21 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor in writing, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may proceed as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.7.6 Prior to the beginning of construction, the following permits (where applicable to the Project) must be obtained (this list being for informational purposes and not limiting any other permits that may be required);

- .1 Emergency work Permit: The creation of excessive noise associated with the erection, alteration, repair or demolition of any building, earthmoving activities, land clearing activities, street paving, or utility construction in a residential or business district, other than during Regular Working Hours shall require an Emergency Work Permit. This permit shall be issued by the Engineering Director of the Town of Cary only in cases where such Work is of an emergency nature.

- .2 Burning Permit: A Burning Permit shall be obtained a minimum of 24 hours prior to any burning. This permit shall be obtained from the Town of Cary Fire Department or other governmental agency having jurisdiction to issue such permits.
- .3 Blasting Permit: A Blasting Permit is required any time there is to be transportation, use or storage of explosive materials. This permit is required a minimum of 24 hours in advance of the use or transporting of blasting materials and shall be obtained from the Town of Cary Fire Department or other governmental agency having jurisdiction to issue such permits.
- .4 For Work other than Site Work and utility installations, additional permits may be required by the Inspections and Permits Department of the Town of Cary or by other governmental agencies having jurisdiction to issue such permits.

§ 3.7.7 Fines for Noncompliance with Sedimentation and Erosion Control Regulations. The Contractor should be aware that State Laws and Town ordinances provide for the imposition of fines and other civil penalties for the failure to properly plan, implement and maintain appropriate sedimentation and erosion control practices. The Contractor shall familiarize itself with all applicable sedimentation and erosion control regulations and shall follow and abide by them closely. Applicable regulations include (by way of illustration and not limitation) North Carolina General Statutes Section 113A-50 et seq. and Town of Cary Land Development ordinance Chapter 7.4. Violations of such regulations include (by way of illustration and not limitation) grading without prior receipt of a valid grading permit or in a manner inconsistent with such permits, failure to take reasonable measures to protect public or private property from damage caused by failure to retain sediment on site, failure to install adequate erosion and sedimentation control devices, failure to maintain temporary and/or permanent erosion control measures, failure to protect exposed slopes, failure to provide adequate ground cover, failure to revise the erosion and sedimentation control plan after notification of the need to do so, failure to keep dirt and mud off of public streets, and failure to maintain slopes. Contractor shall perform all Work so as to be in compliance with sedimentation and erosion control laws and ordinances and shall pay all fees, fines and civil penalties in connection with the violation(s) of same that do occur. This provision is intended to call Contractor's attention to State and Town sedimentation and erosion control plans, and nothing herein is intended to limit the applicability of Subparagraphs 3.7.2-3.7.4 as to sedimentation and erosion control laws.

§ 3.8 ALLOWANCES

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 Allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 Whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.
- .4 notwithstanding anything else apparently to the contrary in the Contractor Documents or documentation referenced by the Contract Documents, there shall be no price indexing allowed. Unit prices are those specified in the Contract Documents or otherwise in effect at the time of the Invitation to Bid.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness. Contractor is encouraged to purchase materials at the award of the Agreement because price indexing is not allowed, even if the work is expected to take a significant period of time.

§ 3.9 SUPERINTENDENT

§ 3.9.1 The Contractor shall employ a competent full-time superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the name and qualifications of a proposed superintendent. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to the proposed superintendent or (2) that the Architect requires additional time to review. Failure of the Architect to reply within the 14 day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not remove, other than for terminations from Contractor's employment, the superintendent from the Project without the written approval of the Architect and the Owner.

§ 3.9.4 The Contractor's project manager and the Contractor's superintendent shall be full-time employees of the Contractor. The project manager and the superintendent shall each have a minimum of five years' experience constructing projects similar to the Project. The project manager's and the superintendent's previous work performances must, respectively, be acceptable to the Owner as to quality of workmanship and time of performance. Resumes of the project manager and the superintendent shall be submitted by the Contractor to the Owner at the time the contract is signed. If either person is or becomes unacceptable to the Owner, the Contractor, upon written demand by the Owner, shall promptly remove the unacceptable person and shall appoint a replacement satisfactory to the Owner.

§ 3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the information and approval as to the completion date a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for coordinated, expeditious and practicable execution of the work and the Project in cooperation with the other prime contractors on the Project.

§ 3.10.2 The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, and shall submit the schedule(s) for the Architect's approval. The Architect's approval shall not unreasonably be delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 As the Project expediter for the Project, the Contractor shall integrate the construction schedules of the prime contractors into a Project progress schedule that will show graphically by a detained bar chart, CPM, or other acceptable and approved methods, the projected progress of the Project from start to finish. The Contractor shall be responsible for providing adequate notice to all prime contractors to insure efficient continuity of all phases of the Project work. All prime contractors shall review and conform their portion of the Work to the approved progress schedule and fully inform the Project expediter as to their portion of the Work progress, including immediate notification of any Work progress changes.

§ 3.10.4 'Regular Working Hours' exclude holidays and are defined as, Monday through Friday, between the hours of 7:00 AM and 6:00 PM and Saturday between the hours of 9:00 AM and 6:00 PM. Saturday work that requires engineering and/or construction observation shall be subject to the provisions of 3.10.5, where fees incurred by the Owner may be charged to the Contractor and deducted from the monies due to it.

§ 3.10.5 Work performed outside of Regular Working Hours shall be of a nature that does not require the presence of the Inspector. The Contractor's bid shall be deemed to have been based upon such scheduling.

If it shall become imperative to perform Work at times other than Regular Working Hours, the Owner and Architect shall be informed 48 hours in advance of the beginning of such Work. The Owner shall have the final decision as to

whether Work shall be performed outside of Regular Working Hours. Temporary lighting and all other necessary facilities for performing and inspecting the Work after dark shall be provided and maintained by the Contractor.

Should the Contractor be allowed to perform Work on nights or weekends, the additional engineering or construction observation fees incurred by the Owner may be charged to the Contractor and deducted from the monies due to it.

Work shall not be performed when the weather is inclement, stormy, freezing or otherwise unsuitable. Only such Work as will not suffer injury to workmanship, materials or equipment is permitted. The Contractor shall carefully protect all Work against damage or injury from the weather, and when Work is permitted during freezing weather, shall provide and maintain approved facilities for heating the materials and equipment and for protecting the finished Work. The Contractor shall take all necessary precautions in the event of impending storms to protect all Work, materials, and equipment from damage or deterioration due to floods, driving rain, wind or snowstorms. The Owner reserves the right, upon the advice of the Architect, to order that additional protective measures over and beyond those proposed by the Contractor be taken to safeguard all components of the Project. The Contractor shall have no right to nor make any claim for compensation for such precautionary measures so ordered, nor have a right to or make any claim for compensation from the Owner for damage to the Work from weather elements.

§ 3.10.6 The construction schedule shall be evaluated by the Contractor not less than monthly. An updated and corrected Progress Schedule shall be submitted to the [Architect or Engineer] in triplicate and shall show any rescheduling necessary to reflect the true job conditions. This updated Progress Schedule shall be submitted monthly to the [Architect or Engineer] with the Contractor's pay request. When the shortening of various time intervals is necessary to correct for behind-schedule conditions, the Contractor shall indicate the steps necessary to accomplish the Work in the shortest schedule possible. Information regarding the new time intervals and the reasons for them shall be submitted to the [Architect or Engineer] in writing with the revised schedule. Notwithstanding anything apparently to the contrary in [Article 9 or Article 14], the [Architect or Engineer] may withhold progress payments until such time as the Progress Schedule or revised Progress Schedule, if applicable, is received.

§ 3.10.7 Construction Conferences. The following conferences with the Architect or the Owner shall be held to ensure that the Work progresses appropriately and that the Owner and the Architect are kept apprised of the status of the Work throughout the duration of the Project:

- .1 Preconstruction Conference. A preconstruction conference shall be held after the award of the Contract and prior to commencement of the Work or delivery of materials or equipment to the Project site. The Architect shall notify the Contractor of the place, date, and time of the meeting. The Contractor, its project manager, its superintendent, and any of the Contractor's other Project coordinators, representatives or other parties whose work on the Project would benefit from the conference shall attend.
- .2 The Owner and Architect will attend this conference. The Contractor, major subcontractors, and Contractor's safety representative shall attend this conference. The resumes of both the Contractor's project manager and superintendent shall be submitted to the Owner for review and approval prior to the conference. The project manager and superintendent shall have at least 5 years of experience managing and supervising the type of construction work specified in the contract documents. No work shall be allowed until the Project Superintendent is on-site and working on this project. The conference agenda will include, as a minimum: tentative construction schedule; critical work sequencing; designation of responsible personnel; processing of field decisions, proposal requests and change orders; adequacy of distribution of contract documents; submittal of shop drawings and samples; procedures for maintaining record documents; use of site and Owner's requirements; material deliveries and storage areas; major equipment and material deliveries and priorities; safety; security; housekeeping procedures; partial payment processing; general regard for community relations.
- .3 Monthly Progress Meetings. Each prime contractor is required to attend monthly progress conferences called or scheduled by [the Architect or the Engineer] at the Project Site. Each prime contractor shall be represented at these meetings by both its home office and Project personnel. These representatives shall have the authority to act on behalf of the Contractor. The meetings shall be open to the Subcontractors, materials suppliers, utility company representatives and any others whose presence and participation would contribute toward maintaining required job process. It shall be the principal

purpose of these meetings to effect coordination, cooperation and assistance in every practical way toward the end of maintaining progress of the Project on Schedule and to complete the Project within the specified Contract [Time or Times]. Each prime contractor shall be prepared to assess the progress of the Work as required in its particular contract and to recommend remedial measures for correction of the progress as may be appropriate. The [Architect or Engineer], or the representative thereof, shall be the coordinator of the conferences and shall preside as chairman. The [Architect or Engineer] will record minutes of the proceedings and decisions, and will distribute copies of the minutes to attendees. The Owner and [Architect or Engineer] will attend this meeting. The Contractor shall attend this meeting. The agenda will include, as a minimum; review and approve minutes of previous meeting; review progress of work since last meeting; review proposed 30-60 day construction schedule; field observations, problems, and conflicts; problems that impede planned progress; corrective measures and/or procedures to regain projected schedule; revise construction schedule as indicated and plan progress during the next work period; submittal status; pending changes; maintenance of quality and work standards; status of community relations and complaint resolution; complete other current business; schedule next progress meeting.

- 4 Weekly Coordination Meetings. The Contractor shall meet with the [Architect or Engineer] at least once per week to ensure efficient coordination of the various aspects of the Work being performed.
- 5 Other Required Meetings. As the [Architect or Engineer] or the Owner believes it is appropriate and would be helpful to maintaining the efficiency and quality of the Work, the [Architect or Engineer] or the Owner may schedule a meeting with the Contractor and any other parties. The Contractor shall ensure proper representation at such meetings to effect their purpose, including sending any specific personnel requested by the [Architect or Engineer] or the Owner. Notwithstanding the foregoing, if the Contractor reasonably believes that the progress or quality of the Work will or might be impeded by attendance at the meeting, then the party calling such meeting shall work with the Contractor to reschedule it for a mutually convenient time.

§ 3.11 DOCUMENTS AND SAMPLES AT THE SITE

The Contractor shall maintain at the site for the Owner one copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. Their purpose is to demonstrate the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal

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schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such written notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

§ 3.12.11 The Contractor shall reimburse the Owner for costs of the Architect reviewing more than two submittals on a single item in the shop drawings, product data, samples and the like, provided the additional submittals are not due to the fault or omission of the Architect.

§ 3.13 USE OF SITE

§ 3.13.1 The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.13.2 The Contractor, its employees, its Subcontractors and suppliers shall occupy and use the Project site only for the purpose of executing the Work, and only during Regular Working Hours as provided in Subparagraph 3.10.4.

§ 3.13.3 Storage of equipment or materials, or erection and use of sheds outside of the Project site, if such areas are

the property of the Owner, shall be used only with the Owner's approval. Such storage or temporary structures, even within the Project site, shall be confined to the Owner's property. Contractor shall not utilize property other than the Project site, including property designated as easement area or right of way area, unless specifically permitted elsewhere in the Contract Documents, without the express permission of the owner thereof. Such permission of owners of other properties shall not be sought by the Contractor without the express permission of the Owner to so approach such owners.

§ 3.13.4 Contractor shall be responsible for the preservation and protection of property adjacent to the Project site from damage or injury as a result of Contractor's Operations under this Contract. Prior to commencement of Work in the vicinity of property adjacent to the Project site, Contractor, at its own expense, shall take such surveys as may be necessary or expedient to establish the existing conditions of the property.

§ 3.13.5 Any damage or injury occurring to any property as a result of any act, omission or neglect on the part of the Contractor shall be repaired so that the property is restored in a proper and satisfactory manner, or replaced, by and at the expense of the Contractor, to an equal or superior condition than previously existed. Contractor shall be responsible for all costs in connection with the settlement of or defense against claims for damages or alleged damages to property as a result of Work performed under this Contract. Before final payment under the Contract shall be made to the Contractor, the Contractor shall furnish satisfactory evidence to the Owner that all claims for damage have been legally settled, that sufficient funds to cover such claims have been placed in escrow, or that an adequate bond to cover such claims has been obtained.

§ 3.13.6 Subsurface information, if provided by the Owner to the Contractor, is provided for the sole purpose of placing the Contractor in receipt of all information available to the Owner and the [Architect or Engineer], and such information is not to be considered as part of the Contract Documents. Contractor acknowledges that it has interpreted the subsurface information according to its own judgment in bidding the Work and that it did not rely on the subsurface information provided to it in making its bid. The Contractor acknowledges that it assumes all risks contingent upon the nature of the subsurface conditions actually to be encountered by it in performing the Work required by the Contract, even though such actual conditions may result in the Contractor performing more or less Work than originally anticipated. Unless the Owner specifically agrees in writing, neither the Contract [Time or Times] nor the Contract [Sum or Price] shall be adjusted on the basis of the actual subsurface conditions being different than as revealed in the subsurface information provided to the Contractor by the Owner.

§ 3.13.7 Construction Staking and Surveying. All Work under this Contract shall be constructed in accordance with the lines and grades shown on the Contract Drawings or as directed by the [Architect or Engineer]. Elevation of existing ground, structures and appurtenances are believed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake-out survey shall be referred immediately to the [Architect or Engineer] for interpretation or correction.

§ 3.13.8 The Contractor shall provide and maintain substantial survey markings delineating easement and property boundaries during construction. These markings shall be in place and approved by the [Architect or Engineer] prior to beginning construction activities.

§ 3.13.9 Water for Construction. Water needed for construction of the Work may be obtained from the Town of Cary. The Contractor shall be responsible for transporting water. The Contractor shall contact the Cary Fire Department to have a hose and meter installed so as to obtain water and set up an account with the Town of Cary for payment. The Contractor shall not operate any main valve or fire hydrant on the Town water system except in accordance with Town of Cary Policy Statement No. 49. The cost of water shall be incidental to the contract and no separate payment will be made by the Owner.

§ 3.13.10 The Contractor is advised to perform video inspections and take photographs of the proposed construction areas before disturbing the Site in order to establish an accurate record of the pre-construction conditions for comparison to the final restoration work. The Contractor shall provide the Owner with copies of all video and photographic records. The cost of video and photographic work shall be incidental to the contract and no separate payment will be made by the Owner.

§ 3.13.11 The Contractor shall continually notify members of the public that own or occupy private property that may be affected by the scheduled Work of portions of the Work that affect or are likely to affect their property. (Property affected by the proposed Work includes properties that are adjacent to the Site, or in close enough proximity to be materially impacted by utility service interruptions, noise or dust or other normal by-products of the Work, or near which vehicles and/or materials are to be stored or parked during the course of the Work.) The Owner will distribute a letter to all property owners that will be affected by the proposed Work describing the Project. When construction begins, the Contractor shall notify residents at least 72 hours in advance of when their property will be directly affected by the Work, with continual updates as required by the progress of the Work. In the event of planned utility service disruptions, the Town's Public Works and Utilities Department, or other affected utility provider, shall also be notified. At a minimum, the Contractor shall distribute door hangers to all residents in the affected area before mobilizing on the Site and then distribute follow-up notices at least 3-days before residents are directly affected by the planned Work. The door hangers shall include the contact names and local phone numbers for the Contractor's project manager, superintendent and the logo of the Contractor and major subcontractors. Cost of such notification shall be considered incidental to the Contract and no separate payment will be made for these costs.

§ 3.14 CUTTING AND PATCHING

§ 3.14.1 The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting and patching shall be restored to the condition existing prior to the cutting, fitting and patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

§ 3.15 CLEANING UP

§ 3.15.1 During construction, the Contractor shall regularly remove from the Project site all accumulated debris and surplus materials of any kind that result from its operations. Unused equipment and tools shall be stored at the Contractor's yard or base of operations for the Project. When the Work involves installation of sewers, drains, water mains, manholes, underground structures, or other disturbance of existing features in or across streets, rights of way, easements, or private property, the Contractor shall (as the Work progresses) promptly backfill, compact, grade, and otherwise restore the disturbed area to a basic condition that will permit resumption of pedestrian or vehicular traffic and any other essential activity or function consistent with the original use of the land. Unsightly mounds of earth, large stones, boulders, and debris shall be removed as promptly as possible so that the Site maintains a neat appearance.

§ 3.15.2 Before leaving the Project site upon completion of the Work, the Contractor shall remove from the Project site all accumulated debris and surplus materials of any kind that result from the Project, including construction equipment, tools, sheds, sanitary enclosures, and the like. The completed Project shall be turned over to the Owner in a neat and orderly condition. The Project site shall be rehabilitated or developed in accordance with other sections of the Specifications and the Drawings. In the absence of any portion of these requirements, the Contractor shall completely rehabilitate the Project site to a condition and appearance equal or superior to that which existed just prior to construction, except for those items whose permanent removal or relocation was required in the Contract Documents or so ordered by the Owner.

§ 3.15.3 Failure to clean and prepare the Project site in accordance with this Paragraph shall forestall Contractor's right to receive its final payment of the Contract Sum. At the Contract Time for full performance of the Work, if the cleaning and preparation is not complete. Owner may make arrangements for same with a third party. The Contractor shall reimburse the Owner for all costs associated with such work in a deduction in the Contract Sum or by direct payment from the Contractor to the Owner, or a combination of both, at the option of the Owner.

§ 3.15.4 The Contractor shall replace survey markers, such as property corners, right-of-way monuments and the like that are disturbed as a result of the Work, whether or not specifically identified in the Contract Documents, where property corners and/or rights of way remain the same location after the Work has been performed. If property corners and/or right of way line locations have been altered or established in connection with the Work, Contractor shall place

survey markers, such as property corners, right-of-way monuments and the like, whether such Work is North Carolina Professional Land Surveyor (PLS).

§ 3.16

ACCESS TO WORK; WORK IN RIGHTS OF WAY

§ 3.16.1 The Contractor shall provide the Owner and Architect access to the Work in preparation and progress wherever located.

§ 3.16.2 Work includes work in public or private right of way:

- .1 Traffic to and from the Site: The Contractor shall maintain traffic to, from and around the Site in accordance with the Town of Cary 'Standard Specifications and Details', the NCDOT 'Standard Specifications for Roads and Structures' and the following provisions: At the end of each workday, the Contractor shall backfill, up to the edge and elevation of existing pavement, any area adjacent to the travelway that has a drop off of more than three (3) inches. The Contractor shall perform this work at no additional cost to the Owner. Access to the Site and properties adjacent to the Site shall be maintained at all times throughout the Project. Where driveways, mailboxes and/or other improvements are disturbed, temporary drives, mailboxes and/or other improvements if appropriate shall be installed immediately and maintained until such time as permanent repair to the driveways, mailboxes and/or other improvements is made. An ABC stone base shall be used to maintain temporary driveways. No additional payment shall be made by the Owner or other parties to the Contract for such temporary driveway construction and maintenance because such Work shall be considered incidental to the Contract and included in the Contract Price.
- .2 Work in Streets, Highways and Other Rights of Way: Excavation, grading, fill, storm drainage, paving and any other construction or installations in rights of way of streets, highways, public carrier lines, utility lines (either aerial, surface or subsurface), and the like, shall be done in accordance with the applicable portions of the Specifications and the requirements of authorities having jurisdiction. The Owner shall make all arrangements with the proper authorities for such Work, including the obtaining of permits, and shall pay costs associated with such, with the exception of electrical permits, blasting permits and inspections. The Contractor shall keep a copy of all required permits on the Site at all times. The Contractor shall be responsible for all bonds required by the North Carolina Department of Transportation.

§ 3.17 ROYALTIES, PATENTS AND COPYRIGHTS

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

§ 3.18 INDEMNIFICATION

§ 3.18.1 To the fullest extent permitted by law the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages,

compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

§ 3.18.3 The purchase of insurance by the Contractor with respect to the obligations required herein shall in no event be construed as fulfillment or discharge of such obligations.

§ 3.18.4 None of the foregoing provisions shall deprive the Owner, Architect, or the Contractor of any action, right or remedy otherwise available to them or any of them pursuant to the law of North Carolina.

§ 3.19 TEMPORARY FACILITIES

§ 3.19.1 If the Project Site does not have working toilet facilities, or if the Owner requests, the Contractor shall provide temporary toilet facilities for the use of all workmen. Temporary toilet facilities shall comply with local and state sanitation laws and regulations.

ARTICLE 4 ARCHITECT

§ 4.1 GENERAL

§ 4.1.1 The Owner may retain an architect lawfully licensed to practice architecture or an entity lawfully practicing architecture in the jurisdiction where the Project is located. That person or entity, whether an architect retained by Owner or Owner's staff member acting as Architect hereunder and under the other Contract Documents, is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 4.1.2 Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents may be reasonably restricted, modified or extended by the Owner.

§ 4.1.3 If the employment of the Architect is terminated, the Owner shall employ a successor architect as to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 4.2 ADMINISTRATION OF THE CONTRACT

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents, and will be an Owner's representative (1) during construction, (2) until final payment is due and (3) with the Owner's concurrence, from time to time during the one year period for correction of Work described in Section 12.2. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

§ 4.2.2 The Architect as a representative of the Owner shall visit the Site at intervals appropriate to the state of construction to become familiar with the progress and quality of the completed Work and to determine if the Work is being performed in a manner indicating that the Work, when completed, will be substantially in accordance with the Contract Documents. On the basis of on site observation as an architect, the Architect shall keep the Owner informed of progress and quality of the Work, and shall use reasonable care to guard the Owner against defects and deficiencies in the Works." Furthermore, the Architect shall report to the Owner known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor.

§ 4.2.3 The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 COMMUNICATIONS FACILITATING CONTRACT ADMINISTRATION

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples of the purpose of ascertaining that the Work affected by such submittals is in compliance with the requirements of the Contract Documents. The Architect shall be responsible for determining what aspects of the Work shall be the subject of Shop Drawings and which submittals require review and approval of the Architect. The Architect shall not knowingly permit aspects of the Work requiring such conformance or approval to proceed in the absence of it conforming to approved Shop Drawings or otherwise being approved by the Architect, and shall inform the Owner in writing when such Work is nonconforming or has not yet been approved. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5 and 3.12. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more project representatives to assist in carrying out the Architect's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in the Contract Documents.

§ 4.2.10.1 If a Resident Project Representative has been specified in Schedule 1 to the Agreement between the Town of Cary and the Contractor (Section 0500), then the following provisions apply. The Resident Project Representative shall serve as the [Architect's or Engineer's] liaison with the Contractor, working principally through the Contractor's superintendent to assist it in understanding the intent of the Contract Documents. The Resident Project Representative shall conduct on-site observations of the Work in progress to confirm that the Work is proceeding in accordance with the Contract Documents. The Resident Project Representative shall verify that tests, equipment and systems start-ups and operating and maintenance instructions are conducted as required by the Contract Documents. The Resident Project Representative shall have the authority to disapprove or reject defective work in accordance with the [Architect's or Engineer's] authority.

Other specific responsibilities, authority, and limitations of the Resident Project Representative are: None.

Except upon written instructions of the [Architect or Engineer], the Resident Project Representative shall not:

1. Authorize any deviation from the Contract Documents or approve any substitute materials or equipment.

2. Exceed the limitations of the [Architect's or Engineer's] authority as set forth in the Contract Documents.
3. Undertake any of the responsibilities of the Contractor, Subcontractors or the Contractor's superintendent, or expedite the Work.
4. Advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction, unless such is specifically called for in the Contract.
5. Advise on or issue directions as to safety precautions and programs in connection with the Work.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 DEFINITIONS

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

§ 5.2.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to any such proposed person or entity or (2) that the Architect requires additional time for review. Failure of the Owner or Architect to reply within the 14 day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not replace or add a Subcontractor, person or entity to the Project without notice to and approval of same by the Owner and the Architect.

§ 5.2.5 Contractor shall ensure that at least 30% of the Work is performed with Contractor's employees, Contractor shall employ only competent, suitably qualified persons to perform the Work. Contractor shall at all times maintain good discipline and order at the Site. Whenever Owner notifies Contractor in writing that any person on the Work appears to be incompetent, disorderly, or otherwise unsatisfactory, such person shall be removed from the Project and shall not again be employed on it except with the prior written consent of Owner. No adjustment shall be made in the Contract Sum or the Contract Tim on the basis of the removal of such person from the Project.

§ 5.2.6 If during the duration of the Project, the Contractor effects as substitution for any Subcontractor pursuant to Paragraph 5.2, or if additional subcontract opportunities become available, the Contractor shall make a good faith effort to utilize minority business enterprises.

§ 5.3 SUBCONTRACTUAL RELATIONS

§ 5.3.1 By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Architect, Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents, Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.3.2 Each subcontract shall be in writing and shall specifically provide that the Owner is an intended third-party beneficiary of such subcontract.

§ 5.3.3 The Contractor shall provide copies of its subcontracts, agreements and current information on the status of its accounts upon demand by the Owner.

§ 5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor in writing; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts in writing the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract, as of the date of the Owner's assumption of the same.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for actual increases in cost resulting from the suspension. Actual costs incurred may be charged against the Contractor if the Work was suspended due to the fault of the Contractor.

§ 5.4.3 Upon such assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Article 15.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces, the Owner shall be deemed to be subject to the same obligations and to have the same rights that apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6 and Articles 10, 11 and 12.

§ 6.1.5 The Contractor shall accept assignment of, and liability for, all purchase orders and other agreements for procurement of materials and equipment that are identified as part of the Contract Documents. The Contractor shall be responsible for such pre-purchased items, if any, as if the Contractor were the original purchaser. The Contract Sum includes, without limitation, all costs and expenses in connection with delivery, storage, insurance, installation and testing of items covered in any assigned purchase orders or agreements. All warranty and correction of the Work obligations under the Contract Documents shall also apply to any pre-purchased items, unless the Contract Documents specifically provide otherwise.

§ 6.2 MUTUAL RESPONSIBILITY

§ 6.2.1 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a separate contractor because of the Contractor's delays, improperly timed activities or defective construction. In the event of unreasonable delay by any contractor under direct contract with Owner to provide work on this Project, Contractor shall pursue payment directly from such other contractor for any reasonable direct delay and disruption costs incurred by the Contractor as a result of such other contractor's wrongful actions or inactions. Claims by the Contractor against such other contractor shall first be submitted to the Architect for its review and approval. The Architect shall forward its

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recommendation regarding such claims to the Owner. The Owner shall not bear any responsibility to the Contractor for such costs unless it has specifically instructed the separate contractor to act in the manner causing such costs.

§ 6.2.4 The Contractor shall promptly remedy damage the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or separate contractors as provided in Section 10.2.5.

§ 6.2.5 The Owner and each separate contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.2.6 Contractor shall be directly liable to Owner and to other contractors under direct contract with Owner to provide work on this Project for the reasonable direct delay and disruption costs incurred by Owner or such other contractor as a result of Contractor's wrongful action or inactions. If through the acts of neglect on the part of Contractor performing the Work, any other contractor or any subcontractor shall suffer or claim to have suffered loss or damage, Contractor shall reasonably attempt to settle such claims with such other contractor or subcontractor by agreement or arbitration. If such other contractor or subcontractor shall assert any claim against Owner on account of any damage alleged to have been sustained, Owner shall notify Contractor, who shall indemnify and save harmless Owner against any such claims.

§ 6.3 OWNER'S RIGHT TO CLEAN UP

If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect shall recommend to the Owner an allocation of the costs of such clean up among those parties the Architect deems to be responsible. Based upon such recommendation, the Owner shall review, approve and reallocate the costs as it deems appropriate, and the costs of such clean up shall be borne by the parties in accordance with the approved allocation thereafter provided by the Architect to the parties deemed responsible.

§ 6.4 If the Owner intends at the time of the making of the Agreement to contract with others for the performance of other work on the Project at the Site, those others and their responsibilities are identified as follows:

Contractor	Work Covered	Contact Person
None	None	None

If a party other than the Owner is to have authority and responsibility for coordinating the Work and the foregoing other work, that party is: None

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 GENERAL

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor and Architect; a Construction Change Directive and an order for a minor change in the Work require agreement by the Owner and Architect and may or may not be agreed to by the Contractor.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly with such changes, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.

§ 7.2 CHANGE ORDERS

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor and Architect stating their agreement upon all of the following:

- .1 The change in the Work;

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- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 CONSTRUCTION CHANGE DIRECTIVES

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.7.

§ 7.3.4 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 7.3.5 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.6 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.7 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including a reasonable allowance or deduction for overhead and profit, computed in accordance with Subparagraph 7.3.11. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.7 shall be limited to the following:

- .1 Costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- .2 Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and
- .5 Additional costs of supervision and field office personnel directly attributable to the change.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect, with adjustment to the Contract Sum for reduction in overhead and profit being made as described in Subparagraph 7.3.11 for deductive changes. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for

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overhead and profit shall be figured on the basis of the net change in the Contract Sum in accordance with the provisions of Subparagraph 7.3.11 regarding either additive or deductive changes, as appropriate.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may, in Applications for Payment, request payment for amounts not in dispute for such changes in the Work completed under the Construction Change Directive and that in the opinion of the Architect correspond to changes in the Work that can and should be incorporated in the Work even in the absence of the incorporation of the changes for which amounts are disputed. Any such Application for Payment shall be accompanied by a Change Order indicating the parties' agreement with part or all of such costs. For any portion of such costs that remains in dispute, the Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim, in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.3.11 A Change Order, when issued, shall reflect the full compensation, or credit, for the extra Work included, omitted, or substituted. It shall show on its face the adjustment in time for completion of the Project as a result of the change in the Work. Each Change Order shall include all costs related thereto, including all overhead, miscellaneous expenses and incidentals. The Contractor shall submit a written itemized proposal for each Change Order under consideration (Change Proposal Request) within 21 days of receipt of a pricing request. The allowance for overhead and profit for changes in the costs described in Subparagraph 7.3.6 shall be made in accordance with the following schedules:

- .1 For the Contractor, for any Work performed by the Contractor's own forces, 15 percent of the cost for additive changes. Deduct 5 percent for deductive changes.
- .2 For the Contractor, for Work performed by a Subcontractor, 5 percent of the amount due the Subcontractor.
- .3 For each Subcontractor, or sub-Subcontractor involved, for any Work performed by its own forces, 15 percent of the cost for additive changes. Deduct 5 percent for deductive changes.
- .4 For each Subcontractor, for Work performed by its sub-Subcontractor, 5 percent of the amount due the sub-Subcontractor.

§ 7.4 MINOR CHANGES IN THE WORK

The Architect, with the consent of the Owner, has authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes will be effected by written order signed by the Architect and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

§ 7.5 ARCHITECT/ENGINEER SUPPLEMENTAL INSTRUCTIONS

§ 7.5.1 Architect/Engineer Supplemental Instructions ("AESI") define proposal changes in the Work and may be prepared and given to the Contractor by the Architect from time to time.

§ 7.5.2 Upon receipt of a AESI, the Contractor shall review and evaluate the scope of the AESI, and if any potential impact on the Project is determined, shall notify the Owner immediately. The Owner may direct the Contractor to stop the Work in the area affected by the changes to minimize the cost impact, or may direct the Contractor to proceed with the change.

§ 7.5.3 The Contractor shall submit a proposal substantiating what adjustments in the Contract Sum and/or the Contract Time, if any, would be necessary (including complete labor and material itemization) within 21 days after

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receipt of an AESI. The method used to determine any adjustment shall be limited to those listed in Subparagraphs 7.3.6 through 7.3.8.

§ 7.5.4 A Change Order shall be prepared if the Contractor's proposal is acceptable and agreed upon by the Owner. The Contractor is authorized to proceed with Work once the Owner approves the AESI.

§ 7.5.5 A Construction Change Directive shall be prepared if a change is to be made, but the Contractor's proposal is not acceptable, or to expedite the change.

§ 7.6 FLOAT TIMES AND CONTRACT SUM

§ 7.6.1 The Owner controls the float time in the progress schedule, and therefore, without obligation to extend either the overall completion date or any intermediate completion dates set out in the progress schedule, the Owner may initiate changes to the Work that absorb float time only. Owner-initiated changes that affect the critical path on a critical path methods schedule shall be the sole grounds for extending (or contracting) said completion dates. Contractor-initiated changes that encroach on the float time identified in the current progress schedule may be accomplished with the Owner's concurrence. Such changes, however, shall give way to Owner-initiated changes competing for the same float time.

§ 7.6.2 Portions of the Work that are listed in the progress schedule with a float time may, at the option of the Owner, be performed using any or no amount of the float time, but in no event shall performance of the Work during the float times entitle the Contractor to an increase in the Contract Sum as to such portions of the Work or as to other portions of the Work.

ARTICLE 8 TIME

§ 8.1 DEFINITIONS

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8. and approved by the Owner.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 PROGRESS AND COMPLETION

§ 8.2.1 Time limits stated in the Contract Documents and Contractor's Construction Schedule, as integrated by the General Contractor and as approved by the Owner and Architect as to the completion date, are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time and the General Contractor's Construction Schedule are reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.2.3 If the progress or completion of the Work is delayed by any fault, neglect, act or failure to act on the part of the Contractor or anyone acting for or on behalf of the Contractor, then the Contractor shall, in addition to all of the other obligations imposed by the Owner, work such overtime and/or require the appropriate Subcontractor to work overtime as may be necessary to make up for all time lost and to avoid delay in the progress and completion of the Work.

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§ 8.3 DELAYS AND EXTENSIONS OF TIME

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner; or by changes ordered in the Work; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control; or by delay authorized by the Owner pending mediation and arbitration; or by other causes that the Architect, with approval of the Owner determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect, with approval from the Owner, may determine.

§ 8.3.1.1 Time extensions approved by the Owner shall extend the Contract Time only and shall not justify a claim by the Contractor for an increase in the Contract Sum for extended general conditions, duration related expenses, overhead expenses or other costs. No increase in the Contract Sum shall be made on the basis of an increase in the Contract Time.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 The Contractor shall bear the cost of any additional services of the Architect made necessary by delays in completion of the Work due to actions of the Contractor or any Subcontractors. The Contractor shall promptly pay any such costs upon demand by the Owner. At the Owner's option, these costs may be deducted from any amounts otherwise due the Contractor.

§ 8.3.4 Weather shall be taken into account for purposes of ascertaining delays, but only to the extent that actual construction operations are delayed. 'Adverse weather' is defined as weather that is more severe than the average weather for the particular time(s) and date(s) in question as compared to the last 5-year average. The 'average' shall be based on the 'Local Climatological Data' published by the National Oceanic and Atmospheric Administration for the Project area. It shall be the responsibility of the Contractor to furnish all data necessary to support its request.

§ 8.3.5 Extensions granted to the Contract Time shall reflect the actual delay likely to be caused to the date of Substantial Completion. For example, a 3-day delay in the exterior landscaping may or may not result in a full 3-day delay in the remainder of the Work such that Substantial Completion is also delayed a full three days. Only the resulting delay to Substantial Completion shall be credited to the Contract Time.

§ 8.3.6 The Contractor shall not be entitled to additional compensation as a result of time extensions due to adverse weather conditions approved by the Architect and the Owner.

§ 8.4 LIQUIDATED DAMAGES FOR DELAY

§ 8.4.1 The damages incurred by the Owner due to the Contractor's failure to complete the Work within the required Contract Time, including any extensions thereof, shall be in the amount set forth in the Agreement for each consecutive day beyond the established Contract Time (Sundays and all holidays included) for which the Contractor shall fail to complete the Work (the Liquidated Damages).

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 CONTRACT SUM

The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.2 SCHEDULE OF VALUES

9.2.1 The Contractor shall submit to the Architect, before the first Application for Payment, a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the Architect or Owner may require. This schedule, unless objected to by the Architect or the Owner, shall be used as a basis for reviewing the Contractor's Application for Payment.

§ 9.2.2 Where an itemized proposal is not required, the Contractor shall submit for the [Architect's or Engineer's] approval a complete breakdown of all lump sum items in the Proposal. This breakdown, modified as directed by the [Architect or Engineer], shall be used as a basis for preparing estimates and establishing progress payments. For either lump sum or itemized proposals, a lump sum payment equal to five percent

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(5%) of the total Contract Sum or Price (to include the actual cost of all bonds and insurance, move-on expenses, and the like) will be allowed for 'mobilization' as a progress payment line item. Payment of up to on-fourth of 'mobilization' shall be considered in the initial payment request, provided that cost documentation suitable to the [Architect or Engineer] is furnished by the Contractor. The subsequent outstanding balance of 'mobilization' may thereafter be payable in approximately equal amounts in subsequent payment requests. Full payment of the mobilization line item shall not be considered until after the Work is fifty percent (50%) complete as indicated by the approved progress payments (less cost of mobilization and stored equipment).

§ 9.3 APPLICATIONS FOR PAYMENT

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. Such application shall be notarized, if required, and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or material supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.1.3 Applications for Payment shall include the current list of Subcontractors and suppliers providing labor or materials to the Project. Failure to provide an accurate list, or the existence of Subcontractor or materials at the Project site that have not been approved by the Owner and the Architect, may result in the withdrawal of previous approval(s) and/or removal of the cost of labor and/or materials provided by unapproved Subcontractors and/or suppliers from the current and future Applications for Payment.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to safeguard the materials and equipment from weather and other factors that could cause damage to the materials or equipment, to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

9.3.2.1 In requesting payment for materials stored on or off the Project site, the Contractor shall submit with its Application for Payment an itemized list of the stored materials prepared in sufficient detail to identify the materials and their value. Evidence such as bills of sale or other proof that the materials listed have been paid for by the Contractor may be requested by the Owner or Architect and if so requested shall be furnished by the Contractor prior to payment under the Application for Payment.

§ 9.3.2.2 For materials stored off the Project site, the Contractor shall submit with this Application for Payment, evidence that the materials are stored at the location previously agreed to in writing; that the storage location is bonded; that the materials are stored at the location previously agreed to in writing; that the storage location is bonded; that the materials are insured while in storage and while in transit to the Project site; that transportation to the Project site will be provided, and that all storage fees are being paid in a timely manner. No payment will be certified for material stored off the Project site until the storage location has been agreed upon in writing and the other requirements of this Subparagraph has been fulfilled.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment, and upon payment by Owner after submission by Contractor of an Application for

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Payment, all Work covered thereby shall be deemed to belong to the Owner without need for further documentation evidencing such conveyance of title. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

§ 9.3.4 If any Subcontractor, laborer or materialman of the Contractor or any person directly or indirectly acting for, through or under it or any of the, files or maintains a mechanic's lien or claim against the Project or any part thereof, or against any funds due or to become due from the Owner to the Contractor, the Contractor agrees to cause such liens and claims to be satisfied, removed or discharged at its own expense by bond, payment or otherwise within 10 days from the date of notice thereof, and upon its failure so to do the Owner shall have the right, in addition to all other rights and remedies provided under the Contract Documents or by law, to cause such liens or claims to be satisfied, removed or discharged by whatever means the Owner chooses, at the entire cost and expense of the Contractor (such cost and expense to include legal fees and disbursements). The Contractor agrees to indemnify, protect and save harmless the Owner from and against any and all such liens and claims and actions brought or judgments rendered thereon, and from and against any and all loss, damages, liability, costs and expenses, including legal fees and disbursements, which the Owner may sustain or incur in connection therewith.

§ 9.3.5 If any Liquidated Damages have been assessed against the Contractor, or Owner is otherwise entitled to setoffs, fines or other reductions, the Application for Payment shall reflect such amounts remaining to be accounted for (through direct payment to Owner or as set off against funds approved for payment in a Certificate of Payment) and the funds requested in such Application for Payment shall be net of such remaining Liquidated Damages, setoffs, fines or other reductions, even if such calculations result in net zero payment to Contractor (and remaining Liquidated Damages to be paid/set off).

§ 9.4 CERTIFICATES FOR PAYMENT

§ 9.4.1 The Architect will, within fifteen days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due (accounting for set off of Liquidated Damages, if appropriate, as described above), or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data comprising the Application for Payment, that the Application for Payment is complete and accurate, that the Work has progressed to the point indicated, that materials listed in the Application for Payment have been provided to the Project, that no unapproved Subcontractors or suppliers are supplying labor or materials for the Project, that there are no setoffs, fines owed by the Contractor (to third parties or to the Owner), or other reduction in the amount due to Contractor that have not been properly accounted for in the Application for Payment, and that, to the best of the Architect's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.4.3 The Owner may withhold payment to the Contractor, notwithstanding the Architect's certification, if it is necessary, in the Owner's opinion, to do so to protect the Owner from loss due to any of the reasons set forth in Subparagraph 9.5.1.

§ 9.5 DECISIONS TO WITHHOLD CERTIFICATION

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a separate contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld, minus any amounts that may be or have been spent by the Owner or on its behalf in remedying the reasons for withholding certification, including without limitation costs for fines, setoffs or other reductions, which costs shall be subtracted from the Contract Sum.

§ 9.5.3 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or material or equipment suppliers to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Architect will reflect such payment on the next Certificate for Payment.

§ 9.6 PROGRESS PAYMENTS

§ 9.6.1 Except as provided in Subparagraph 9.4.3, after the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor no later than seven days after receipt of payment from the Owner the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and material and equipment suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by law.

§ 9.6.5 Contractor payments to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

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§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors and suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, shall create any fiduciary liability or tort liability on the part of the Contractor for breach of trust or shall entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.6.8 Retainage shall be five percent (5%) of any periodic payment due Contractor except as otherwise described below:

- .1 When the Contractor's gross project invoices (less the value of materials stored off-site and the value of materials stored on-site that exceed 20% of the gross project invoices) equal or exceed 50% of the value of the Contract (i.e. the Work is fifty percent (30% complete), then, with the consent of the surety and if the manner of completion of the Work and its progress are and remain satisfactory and all corrected work to that point has been accepted, Owner will not retain any further retainage from periodic payments unless Owner thereafter determines (i) performance or progress is not satisfactory, (ii) defective construction is not remedied (iii) there is disputed work or (ix) third-party claims have been or are reasonable expected to be filed against the Owner. If (i), (ii), (iii), or (iv) above occur, Owner shall withhold additional retainage from periodic payments, not to exceed 5% of such payment, in order to allow Owner to retain 2.5% total retainage through the completion of the project.
- .2 Within sixty days after submitting of a pay request and the occurrence of one of the following: (i) receipt by owner of a certificate of substantial completion and Owner can occupy or use the project, or (ii) actual beneficial occupancy or use of the project, then Owner, with written consent of the surety, shall release to the Contractor all retainage held on work completed to date.
- .3 However, the Owner may retain sufficient funds to secure completion of the project or corrections on any work. This amount retained shall not exceed two and one-half (2.5) times the estimated value of the work to be completed or corrected.
- .4 If retainage is reduced and the Contractor does not maintain satisfactory progress or quality of the Work, or for other specific cause, retainage of up to five percent (5%) of the amount of any subsequent periodic payment may be withheld as determined by the [Architect or Engineer].

Retainage for stored materials shall be included in retainage withholding described above, except that the value of materials stored on site shall not exceed twenty percent (20%) of the Contractor's gross project invoices for the purpose of determining whether the project is fifty percent (50%) complete.

The Contractor is hereby advised that it should not assume that any retainage reduction herein described shall be automatic, but that instead, a reduction will be made at the sole discretion of the Owner, consistent with North Carolina Law. Any reduction in the amount of retainage on payments shall be with the written consent of the Contractor's surety. The Contractor is responsible for obtaining such consent and submitting the same with its payment request.

Interest on payments required by N.C.G.S. 143-134.1 shall be zero percent (0%) unless otherwise required by law, [*Specifier may require a different percentage to suite individual contract requirements after consultation with the Engineering Director of the Town of Cary.

§ 9.7 FAILURE OF PAYMENT

9.7.1 If the Architect does not issue a Certificate of Payment, through no fault of the Contractor, within thirty days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor the amount that was certified by the Architect to be due (if such amount was not disputed by the Contractor or the Owner within thirty days of Owner's receipt of such certification), then the Contractor may, upon seven days' written notice to the Owner and the Architect, stop the Work until payment of the undisputed amount due has been received. The contract Time

shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Contract Documents.

9.7.2 If the Owner is entitled to reimbursement or payment from the Contractor under or pursuant to the Contract Documents, such payment shall be made promptly upon demand by the Owner. Notwithstanding any language in the Contract Documents to the contrary, if the Contractor fails to make any payment to the Owner, or the Owner incurs any costs and expenses to cure any default of the Contractor or to correct defective work, the Owner shall have an absolute right to offset such amount against the Contract Sum, and may, in the Owner's sole discretion, elect either to (1) deduct an amount equal to that to which the Owner is entitled from any payments then or thereafter due the Contractor from the Owner, or (2) issue a written notice to the Contractor reducing the Contract Sum by an amount equal to that to which the Owner is entitled.

§ 9.8 SUBSTANTIAL COMPLETION

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. The Owner's receipt of a Certificate of Occupancy is a condition precedent to the Project being deemed Substantially Complete.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion. The Owner shall have the right to withhold such amounts as are allowed by N.C.G.S. 143.134.1, as amended from time to time, and that Architect or Owner shall determine is necessary or appropriate for incomplete Work and unsettled claims.

§ 9.8.3.1 If more than two inspections by the Architect are necessary, such additional inspections will be done at the Contractor's expense. The Architect's fees and expenses for any such additional inspections will be deducted from amounts due to the Contractor on the subsequent Application for Payment.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 PARTIAL OCCUPANCY OR USE

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Section 11.3.1.5 and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract

Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 FINAL COMPLETION AND FINAL PAYMENT

§ 9.10.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.1.1 All warranties and guarantees required under the Contract Documents shall be assembled and delivered by the Contractor to the Architect as part of the final Application for Payment. The final Certificate for Payment shall not be issued by the Architect until all warranties and guarantees have been received and accepted by the Owner.

§ 9.10.1.2 If more than two inspections by the Architect are necessary, such additional inspections will be done at the Contractor's expense. The Architect's fees and expenses for any such additional inspections will be deducted from amounts due to the Contractor on the final Application for Payment.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees. Should there prove to be any such claim, obligation, or lien after Final Payment is made, the Contractor shall refund to the Owner all monies that the Owner shall pay in satisfying, discharging, or defending against any such claim, obligation, or lien, or any action brought or judgment recovered thereon, and all costs and expenses, including reasonable attorneys' fees and other costs of such defense, incurred in connection therewith.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such

payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents; or
- .3 terms of special warranties required by the Contract Documents; or
- .4 claims by the Owner made in writing and identified by Owner as unsettled at the time of the making of the final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment and acceptance of responsibility for all outstanding claims of Owner against Contractor.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 SAFETY PRECAUTIONS AND PROGRAMS

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 SAFETY OF PERSONS AND PROPERTY

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The Contractor alone shall be solely and completely responsible for conditions of the job site in connection with the Work, including safety of all persons and property, preparatory to and during performance of the Work. This requirement shall apply continuously and not be limited to Regular Working Hours.

§ 10.2.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or Loss; and shall, when so directed by the Architect or the Owner, properly correct any unsafe conditions created by, or unsafe practices being committed on the part of its employees, Subcontractors, suppliers or any individual or entity directly or indirectly employed by any of them. The Contractors shall fully comply with any and all applicable portions of the latest revision of the North Carolina Division of Highway 'Policies and Procedures for Accommodating Utilities on Highway Right of Way'. In the event of the Contractor's failure to comply with any of the safety precautions referenced herein or in the Contract Documents, the Architect or Owner may take the necessary measures to correct the conditions or practices complained of; and all costs thereof will be deducted from the Contract Sum due the Contractor. Failure of the Architect to direct the correction of unsafe conditions or practices shall not relieve the Contractor of its responsibility hereunder. If the Contractor fails to give required notices, or fails to comply with such laws, ordinances, rules, regulations, and lawful orders, it shall be liable for and shall indemnify and hold harmless the Owner and the Architect, and their respective employees, officers, and agents, against any resulting fines, penalties, judgments, or damages, including reasonable attorneys' fees imposed on or incurred by the parties indemnified hereunder.

§ 10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. In addition, when use or storage of hazardous material or equipment or

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unusual methods is necessary, the Contactor shall give the Owner reasonable advance notice, but in no event not less than seventy-two hours.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3, except damage or loss attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

- .1 In the event of any claims for damage or alleged damage to persons or property as a result of Work under this contract, the Contractor shall be responsible for all costs in connection with the settlement of or defense against such claims. Before final payment to the Contractor is made under the Contract, the Contractor shall furnish satisfactory evidence that all claims for damage have been legally settled or that sufficient funds to cover such claims have been placed in escrow, or that an adequate bond to cover such claims has been obtained.
- .2 The Construction Documents and the joint and several phases of construction contemplated by the Construction Documents are to be governed at all times by applicable provisions of local and State laws, ordinances and regulations and Federal laws, including but not limited to the latest amendments of the Department of Labor, Bureau of Labor Standards, Safety and Health Regulations for Construction; and Williams and Steiger Occupational Safety and Health Act of 1970, including rules and regulations issued pursuant thereto (OSHA), applicable to the Work and performance of the Contract. Where applicable to the Work, in addition to the requirements of the General Conditions, as supplemented by any Special Conditions, the Contractor shall fully comply with any and all applicable portions of the Division of Highway 'Policies and Procedures for Accommodating Utilities on Highway Right of Way' or latest revision. The duty of any part to conduct a construction review of the Contractor's performance is not intended to include a review of the adequacy of the Contractor's safety measures in, on, or near the Project site.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 INJURY OR DAMAGE TO PERSON OR PROPERTY

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.2.9 Contractor shall notify the Owner immediately, and in no event more than twenty-four hours later, after an emergency has occurred if an emergency compromising the safety of persons or property at the Project site has occurred.

§ 10.2.10 The operations of neither the Contractor nor any Subcontractor shall expose Town of Cary employees to any hazardous chemicals or other occupational safety and health hazards. All Contractors and Subcontractors working on Town of Cary projects or on Town of Cary property shall inform the Architect concerning hazardous chemicals that the Contractor or Subcontractor might be using and to which the Town of Cary's employees might become exposed. The Contractor shall also advise the Architect of the approximate control measures to be used by the Town of Cary's employees to prevent exposure and to minimize risk of exposure.

§ 10.3 HAZARDOUS MATERIALS AT THE SITE

§ 10.3.1 If there are any reports or drawings related to Hazardous Environmental Conditions at the Project site that were utilized by the [Architect or Engineer] in the preparation of the Contract Documents, they are identified as follows: [**If "none", so specify.*] Hazardous Materials" shall mean asbestos, polychlorinated biphenyl ("PCB"), petroleum, "Hazardous Waste" (as that term is defined in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time) or radioactive materials, in such qualities or other circumstances that may present a substantial danger to persons or property exposed thereto in connections with the Work.

§ 10.3.2 Contractor may rely upon the general accuracy of the technical data contained in such reports and drawings, but such reports and drawings are not Contract Documents.

The "technical data" on such reports or drawing is identified as follows: [**If "None", so specify.*]

Except for such reliance on such technical data, Contractor may not reply upon or make any claim against Owner, Architect or any of Architect's Consultants with respect to:

- .1 the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
- .2 other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
- .3 any Contractor interpretation of or conclusion drawn from any technical data or any such other data, interpretations, opinions or information.

§ 10.3.3 UNEXPECTED HAZARDOUS MATERIALS ENCOUNTERED

§ 10.3.3.1 Except as otherwise described in the Contract Documents, Contractor shall not be responsible for any Hazardous Materials uncovered or revealed at the Project site that were not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

§ 10.3.3.2 If Contractor encounters unexpected Hazardous Materials, or if Contractor or anyone for whom Contractor is responsible creates or brings to the Project site any Hazardous Materials, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except that Contractor is obligated to act to prevent damage, injury or loss); and (iii) notify Owner and Architect of the Hazardous Materials and the circumstances of encountering them (and promptly thereafter confirm such notice in writing). If Owner deems it appropriate, Owner shall retain a qualified expert to evaluate such the situation and/or take corrective action.

§ 10.3.3.3 Contractor shall not resume Work in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (ii) specifying any special conditions under which such Work may be resumed safely, at which time Contractor shall resume the Work in the affected area immediately. The Contract Time shall be extended approximately, and the contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shut-down, delay and start-up, which adjustments shall be accomplished as provided in Article 7.

§ 10.3.4 To the fullest extent permitted by applicable laws and regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, Architect, Architect's Consultants and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration of other dispute resolution costs) arising out of or relating to Hazardous Materials, provided that such Hazardous Materials: (i) were now shown or indicated in the Drawings of Specifications or identified in the Contract Documents to be included within the scope of the Work, (ii) were not created or brought to the Project site by Contractor or by anyone for whom Contractor is responsible, and (iii) were known by the Owner to exist. Nothing in

this Subparagraph shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

(Paragraph deleted)

§ 10.3.6 The Owner shall not be responsible under Paragraph 10.3 for any improper use of materials or substances referenced in the Contract Documents nor for any materials or substances brought to the Project site by the Contractor.

§ 10.3.7 The Contractor shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.8 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Contractor for all costs and expense thereby incurred.

§ 10.4 EMERGENCIES

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 CONTRACTOR'S LIABILITY INSURANCE

§ 11.1.1 The Contractor shall purchase from and maintain in a company or companies **approved by Owner and** lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 Claims under workers' compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;
- .2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 Claims for damages insured by usual personal injury liability coverage;
- .5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- .6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
- .7 Claims for bodily injury or property damage arising out of completed operations; and
- .8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

The insurance required to be provided by the Contractor (except Worker's Compensation and Employer's Liability insurance) shall name the following as additional insureds:

√	The Town of Cary	Architect
	Engineer	Architect's or Engineer's Consultant
	Other:	

§ 11.1.2 The insurance required by Section 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, shall be written on an occurrence basis and shall be maintained without interruption from the date of commencement of the Work until the date of final

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payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents. In the event that the insurance coverage required herein is not generally commercially available, then the Contractor shall be responsible for paying for the difference between the total amount of liability and/or damages and the total amount that is covered by its insurance proceeds.

§ 11.1.2.1 The insurance required by Section 11.1.1 shall contain provisions or endorsements that:

- a) the Owner shall be notified in writing within thirty (30) days after the filing of each claim under the policy;
- b) full coverage shall be reinstated after payment of each claim;
- c) the insurer shall have no right of recovery or subrogation against the Owner, its agents or agencies, or the Architect is named as an insured, shall not apply to such insured parties;
- e) the insurance companies issuing the policy or policies shall have no recourse against the Owner, its agents or agencies, or the Architect for the payment of any premiums or for assessment under any form of policy;
- f) any and all deductibles under the insurance policies shall be assumed by and be at the sole risk and expense of the Contractor; and

§ 11.1.2.2 The insurance required by Section 11.1.1 shall contain the following Indemnification Agreement:

Indemnification – to the fullest extent permitted by law, Contractor shall indemnify and hold harmless Owner and Engineer and their agents, consultants and employees from and against all claims, damages, losses and expenses including but not limited to attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense: (a) is attributable to bodily injury, sickness, disease or death, or to injury or to destruction or tangible property (other than the Work itself), including the loss of use resulting therefrom, and (b) is due to damage caused in whole or in part by any negligent act or omission of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not a party indemnified hereunder is partially negligent, or arises out of operation of law as a consequence of any act or omission of the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether any of them has been negligent; provided, however, that no party shall be entitled to indemnification with respect to such party's own negligence. This provision is intended to indemnify to the fullest extent permitted by law both Owner and Architect independently of the negligence of the other, and thus the Owner's negligence shall not preclude indemnification by Contractor of the Architect and Architect's negligence shall not preclude indemnification by Contractor or Owner.

§ 11.1.2.3 The minimum insurance ratings from any company insuring Contractor as required under Section 11.1.1 shall be Best's A-. Should the ratings of any insurance carrier insuring the Contractor fall below the minimum rating, the Owner may at its option, require the Contractor to purchase insurance from a company whose rating meets the minimum standard.

§ 11.1.3 Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

§ 11.1.4 The Contractor shall cause the commercial liability coverage required by the Contract Documents to include (1) the Owner, the Architect and the Architect’s consultants as additional insureds for claims caused in whole or in part by the Contractor’s negligent acts or omissions during the Contractor’s operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor’s negligent acts or omissions during the Contractor’s completed operations.

§ 11.1.5 SPECIFIC INSURANCE REQUIREMENTS

§ 11.1.5.1 The Contractor shall provide insurance coverage for not less than the following amounts and greater coverage where required by law.

Check if Required	Insurance	Minimum Coverage
Comprehensive General Liability including Premises/Operations; Explosion, Collapse and Underground Property Damages; Products/Completed Operations; Broad Form Contractual; Independent Contractors; Broad Form Property Damage; and Personal Liability:		
√	Limits in General	\$2,000,000 Each Occurrence \$2,000,000 General Aggregate
√	Personal Injury, with employment exclusion deleted	\$2,000,000 Each Occurrence
√	Completed Operations Hazard Insurance	\$2,000,000 Each Occurrence
Commercial Automobile Liability , including all owned (private and others), hired and non-owned vehicles used in the Work:		
√	Combined Single Limit (CSL)	\$2,000,000 Each Accident
Excess Liability / Umbrella Coverage:		
√	Umbrella Liability	\$5,000,000 per occurrence and policy aggregate limit
Workers Compensation and Employers Liability:		
√	Worker’s Compensation	[Statutory Minimum]
√	Employer’s Liability	\$1,000,000
Other Lines of Coverage:		
√	Builder’s Risk/Fire and Extended Coverage, including vandalism and malicious mischief	
√	Special Hazards Insurance, including coverage for "boiler and machinery", "blasting and explosion", "collapse of structure" or "injury to any structure due to contractor’s operations" and "damage to underground structures, pipes or conduits"	

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§ 11.1.5.2 The comprehensive general liability insurance and comprehensive motor vehicle disability insurance shall include Owner, its agents and agencies, [Architect or Engineer and Engineer's Consultant] and all municipalities where Work is being performed as additional insureds. The insurance policies required hereunder shall not contain any third party benefit exclusion.

§ 11.1.5.3 Contractor may purchase and maintain excess liability insurance in the umbrella form in order to satisfy the limits of liability required for the insurance to be purchased and maintained in accordance with this Section. Evidence of such excess liability shall be delivered to Owner in the form of a certificate indicating the policy numbers and limits of liability of all underlying insurance. The umbrella liability insurance shall have a combined single limit of not less than \$5,000,000.

§ 11.1.5.4 If any of the property and casualty insurance requirements described herein are not complied with at the renewal dates of the insurance policy(ies), then payments to the Contractor shall be withheld until all requirements have been met, or, at the option of the Owner, if the renewal premiums have not been paid, then the Owner may pay the renewal premiums and withhold the cost thereof from any monies due to the Contractor.

§ 11.1.5.5 In the event that claims in excess of the coverage amounts provided herein are filed by reason of any operations under the Contract, the amount of excess of such claims, or any portion thereof, may be withheld from payment due or to become due to the Contractor until such time as the Contractor shall furnish such additional security covering such claims as may be determined by the Owner.

§ 11.1.5.6 The Contractor shall submit to the Owner documentation as to the cost of insurance coverage required hereunder prior to obtaining the policy(ies). The Owner may, if it deems it to be in its best interest, obtain a portion or all of the coverage on its own and receive a credit from the Contractor against the Contract [Sum or Price] for the cost of the insurance so provided by the Owner.

§ 11.2 OWNER'S LIABILITY INSURANCE

Contractor shall purchase and maintain a separate Owner's Protective Liability policy, issued to Owner at the expense of Contractor, including Owner and [Architect or Engineer] as named insured. The Contractor shall provide the Owner with a certificate of insurance for the policy prior to the effective date of the Contract. The certificate shall state that the policy cannot be canceled or terminated while the Work under this Contract, and any renewals thereof, is still in progress without 30 days' prior notice to the Owner, who shall have the option of reinstating the policy. The Contractor shall provide renewal certificates no later than 30 days prior to the expiration date of the policy. The policy of insurance shall provide coverage for not less than the following amounts:

1.	Bodily Injury	\$2,000,000	Each Occurrence
2.	Property Damage	\$2,000,000	Each Occurrence
		\$2,000,000	Annual Aggregate

§ 11.3 PROPERTY INSURANCE

§ 11.3.1 The Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 11.3 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project. The form of policy for this coverage shall be completed value. If the Owner is damaged by failure of the Contractor to maintain such insurance, then the Contractor shall bear all reasonable costs property attributable thereto. The requirements in Section 11.1.2 for insurance required by Section 11.1.1 shall also apply to the property insurance required in this Section.

§ 11.3.1.1 Property insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without

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duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.

§ 11.3.1.2 Intentionally Deleted.

§ 11.3.1.3 If the property insurance requires deductibles, the Contractor shall pay costs not covered because of such deductibles.

§ 11.3.1.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.

§ 11.3.1.5 Partial occupancy or use in accordance with Section 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

§ 11.3.2 BOILER AND MACHINERY INSURANCE

The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds.

§ 11.3.3 LOSS OF USE INSURANCE

The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.

§ 11.3.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

§ 11.3.5 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, the Owner shall waive all rights in accordance with the terms of Section 11.3.7 for damages caused by fire or other causes of loss covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

§ 11.3.6 Before an exposure to loss may occur, the Owner shall file with the Contractor a copy of each policy that includes insurance coverages required by this Section 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Contractor.

§ 11.3.7 WAIVERS OF SUBROGATION

The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section 11.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of

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other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

§ 11.3.8 A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.3.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

§ 11.3.9 If required in writing by a party in interest, the Owner as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or as determined in accordance with the method of binding dispute resolution selected in the Agreement between the Owner and Contractor. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor after notification of a Change in the Work in accordance with Article 7.

§ 11.3.10 The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved in the manner selected by the Owner and Contractor as the method of binding dispute resolution in the Agreement. If the Owner and Contractor have selected arbitration as the method of binding dispute resolution, the Owner as fiduciary shall make settlement with insurers or, in the case of a dispute over distribution of insurance proceeds, in accordance with the directions of the arbitrators.

§ 11.4 PERFORMANCE BOND AND PAYMENT BOND

§ 11.4.1 The Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising. The bonds shall be written on AIA Document 312 and shall be executed by a responsible surety licensed in North Carolina and acceptable to the Owner.

§ 11.4.1.1 The Contractor shall deliver bonds required by Section 11.4.1 to the Owner no later than 15 days following receipt of Notification of Contract Award.

§ 11.4.1.2 The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current Power of Attorney.

§ 11.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 UNCOVERING OF WORK

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

§ 12.2 CORRECTION OF WORK

§ 12.2.1 BEFORE OR AFTER SUBSTANTIAL COMPLETION

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 AFTER SUBSTANTIAL COMPLETION

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor or its surety shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor or its surety a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition, but such notice obligation shall not be deemed to relieve the Contractor of its obligations to make all corrections necessary in connection with a master list of deficiencies prepared by the Owner and submitted to the Contractor at the end of the one-year correction period for all the deficiencies noted by the Owner during such time. At the end of the one-year period for correction of Work, if the Owner has noticed a deficiency and failed to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.4.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall recommence, upon completion of any Work performed under this Paragraph 12.2, with respect to such Work so performed.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor or its surety has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor or its surety to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's or its surety's liability with respect to the Contractor's or its surety's obligations other than specifically to correct the Work.

§ 12.3 ACCEPTANCE OF NONCONFORMING WORK

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 GOVERNING LAW

The Contract shall be governed by the law of the place where the Project is located except that, if the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 SUCCESSORS AND ASSIGNS

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to covenants, agreements and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner’s rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

§ 13.3 WRITTEN NOTICE

§ 13.3.1 Both the address given in the Bid Form upon which this Agreement is founded, and Contractor’s office at or near the site of the Work are hereby designated as places to either of which notices, letters, and other communications to Contractor shall be certified, mailed, or delivered. The delivering at either of the above named places, or depositing in a postpaid wrapper directed to the address in the Bid Form, in any post office box regularly maintained by the post office department, of any notice, letter or other communication to Contractor shall be deemed sufficient service thereof upon Contractor; and the date of said service shall be the date of such delivery or mailing. The Contractor’s notice address may be changed at any time by an instrument in writing, executed and acknowledged by Contractor, and delivered to Owner and Architect. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or other communication upon Contractor personally.

§ 13.3.2 The notice address for the Owner shall be:

Cary Utilities Department
Town of Cary
316 North Academy Street
Cary, North Carolina 27512-8005
Attention: Jamie Revels, Director of Utilities

The notice address for [the Architect] shall be:

Davis Kane Architects. PA
503 Oberlin Rd Ste 300, Raleigh, NC 27605

If different from the address specified in the Bid Form, the notice address for the Contractor shall be:

Attention _____

§ 13.3.3 The notice address for the Initial Decision Maker shall be:

Town of Cary

316 N Academy St, Cary, NC

Attention: Jamie Revels

§ 13.4 RIGHTS AND REMEDIES

§ 13.4.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

§ 13.4.2 No action or failure to act by the Owner, Architect or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach there under, except as may be specifically agreed in writing.

§ 13.4.3 If any provision of the Contract Documents is held to be illegal, invalid or unenforceable under any law, such provision shall be fully severable, and all other provisions shall remain in full force and effect.

§ 13.5 TESTS AND INSPECTIONS

§ 13.5.1 Tests, inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Contractor.

§ 13.5.2 If the Architect, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Section 13.5.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.5.3, shall be at the Owner's expense.

§ 13.5.3 If such procedures for testing, inspection or approval under Sections 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Architect's services and expenses shall be at the Contractor's expense.

§ 13.5.4 Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.5.5 If the Architect is to observe tests, inspections or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.5.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.6 INTEREST

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the legal rate as set forth in Chapter 24 of the North Carolina General Statutes.

§ 13.7 TIME LIMITS ON CLAIMS

The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the time period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work, if commenced by the Owner, and not more than 1 year after the date of Substantial Completion of the Work if commenced by the Contractor. The Owner and Contractor waive all claims and causes of action not commenced in accordance with this Section 13.7.

§ 13.8 PROJECT RECORDS

§ 13.8.1 The Contractor and its Subcontractors shall maintain the following Project records; bid estimates, payment records, payroll records, meeting minutes, daily reports, logs, diaries, schedules, internal correspondence, notes and memoranda and all correspondence between and among all of the parties involved in the Project including but not limited to all lower tier subcontractors, suppliers, manufacturers and vendors, the Architect and the Owner. These Project records shall be made readily available to the Owner upon request.

§ 13.8.2 Contractor shall maintain 'as-built' record drawings, current with the progress of the Work on the Project site, available for inspection on site, and shall provide them to the [Architect or Engineer] and the Owner prior to Substantial Completion.

§ 13.8.3 All records submitted to Owner by Architect or Contractor, or their agents or subcontractors, shall be deemed official, Project documentation, on which Owner can rely, and which shall be maintained by Contractor and as part of the Project records, whether such records are in electronic or hard-copy format.

§ 13.9 DRUG-FREE WORKPLACE

§ 13.9.1 The Contractor shall maintain and shall require all Subcontractors to maintain a drug-free workplace.

§ 13.0 DISEMINATION OF INFORMATION

§ 13.10.1 It is expressly agreed and understood that the Contractor shall not at any time publicly disseminate any information concerning the Project without prior approval from the Owner. Such approval will not be unreasonably withheld but may be given with certain stipulations, such as Owner Participation in creation of the public product or Owner review and option to refuse ultimate release of the final product should it fail to meet the Owner's standards and goals. Public dissemination includes but is not to be limited to electronic, video, audio, photographic or hard copy materials serving as, in whole or part, professional papers or presentations, news releases, articles, or other media projects, and/or Contractor's business collateral pieces.

§ 13.11 ASSIGNMENT

§ 13.11.1 Contractor shall not assign, transfer, convey or otherwise dispose of the Contract, or of its legal right, title, or interest in or to the same or obligations or warranties made thereunder, in whole or in part, without the prior written consent of the Owner. Contractor shall not assign by power of attorney or otherwise any monies due it and payable under this Contract without the prior written consent of the Owner. Such consent, if given, shall in no way relieve the Contractor from any of the obligations of this Contract. Owner shall not be bound to abide by or observe the requirements of any such assignment.

§ 13.12 FORMS

§ 13.12.1 The form of all submittals, notices, change orders, and other documents permitted or required to be used or transmitted under the Contract Documents shall be determined by Owner and/or Architect. Some of the standard forms that are to be used are included in the Supplementary Conditions.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 TERMINATION BY THE CONTRACTOR

§ 14.1.1 The Contractor may terminate the Contract upon seven days written notice to Owner and Architect if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor promptly, upon the Contractor's request, reasonable evidence as required by Section 2.2.1.

§ 14.1.2 The Contractor may terminate the Contract upon seven days' written notice to Owner and Architect if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any

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other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, repeated suspensions, delays or interruptions of the entire Work by the Owner as described in Section 14.3 constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 TERMINATION BY THE OWNER FOR CAUSE

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the above reasons exist, the Owner may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate the Contract and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the . Contract to the extent the Contractor has incurred expenses with respect to materials, equipment, tools, and construction machinery, excluding overhead, profit, and damages.

§ 14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 TERMINATION BY THE OWNER FOR CONVENIENCE

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and actual costs incurred by reason of such

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 CLAIMS

§ 15.1.1 DEFINITION

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim.

§ 15.1.2 NOTICE OF CLAIMS

Claims by either the Owner or Contractor must be initiated by written notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by the Contractor must be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the Contractor first recognizes the condition giving rise to the Claim, later; provided, however, that the Contractor shall use its best efforts to furnish the Architect and the Owner, as expeditiously as possible, with notice of any Claim including, without limitation, those in connection with concealed or unknown conditions, once such Claim is recognized, and shall cooperate with the Architect and the Owner in any effort to mitigate the alleged or potential damages, delay or other adverse consequences arising out of the condition which is the cause of any such Claim. An additional Claim made after the initial Claim has been implemented by Change Order will not be considered unless submitted in a timely manner.

All Claims must be supported by a complete detailed chronology of all applicable supporting data, including copies of all applicable Contract Documents, Submittals, Requests for Information, Bulletin Drawings, correspondence, Construction Change Directives, and all other documents directly related to the Claim. The Architect or Initial Decision Maker, if other than Architect, shall have no obligation to review a Claim that is not accompanied by the required supporting data.

§ 15.1.3 CONTINUING CONTRACT PERFORMANCE

Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the decisions of the Initial Decision Maker.

§ 15.1.4 CLAIMS FOR ADDITIONAL COST

If the Contractor wishes to make a Claim for an increase in the Contract Sum, written notice to the Architect and the Owner as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.5 CLAIMS FOR ADDITIONAL TIME

§ 15.1.5.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice to the Architect and the Owner as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

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§ 15.1.5.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.

(Paragraphs deleted)

§ 15.1.5.3 The records of the National Oceanographic and Atmospheric Administration (NOAA) for the prior 5 years shall constitute acceptable data for substantiating a claim for additional time due to abnormal weather conditions. In the absence of NOAA records for the Project site, local official records may be acceptable.

§ 15.2 INITIAL DECISION

§ 15.2.1 Claims, excluding those arising under Sections 10.3, 10.4, 11.3.9, and 11.3.10, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, a written decision shall be required as a condition precedent to mediation, arbitration or litigation of any Claim arising prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the Initial Decision Maker with no decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such Persons, the cost of which shall be borne by the party losing the Claim when the final determination of the Claim is made, whether by the Architect or otherwise.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. Subject to a party's election to use mediation in accordance with Section 15.3 if Section 15.3 is marked as being a part of these General Conditions; the initial decision shall be final and binding on the parties Unless a written notice of intention to appeal from the Initial Decision Maker decision is delivered by Owner or Contractor to the other and to the Initial Decision Maker within 30 days after the date such decision is delivered to Owner and Contractor, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of delivery of such decision, if the appealing party is the Contractor, and within 90 days after the date of delivery of such decision, if the appealing party is the Owner, or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by Owner and Contractor), to exercise such rights or remedies as the appealing party may have with respect to such Claim.

(Paragraphs deleted)

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 MEDIATION

§ 15.3.1 [✓] Check hereif this Project is the construction of a building, subject to N.C.G.S. 143-128. If this block is **NOT** checked, the following provisions (this Section 15.3.1 and Sections 15.3.2 through 15.3.8) do **NOT** apply to the Contract Documents and do not revise the General Conditions. Otherwise, Sections 15.3.1 through 15.3.8 **DO** apply to the Contract Documents.

To the extent that this Project is subject to the provisions of N.C.G.S. 143-128(f1) requiring adoption by the Town of Cary of a dispute resolution process, the procedures provided in this paragraph shall apply in the event of a dispute arising out of the any issue in connection with the Project, the Work or the Contract Documents where the amount in controversy is Fifteen Thousand Dollars (\$15,000) or greater (a 'Qualified Claim'). Claims involving less than Fifteen Thousand Dollars (\$15,000) may not be aggregated so as to become together a Qualified Claim. This process is available to all parties involved in the Project, including the Owner, the Architect, the Contractor, the construction manager and the first-tier and lower-tier subcontractors."

§ 15.3.2 A party electing mediation to resolve a Qualified Claim must submit a written request to the Owner and any parties to the dispute (a 'Request for Mediation') to initiate the meditation process.

§ 15.3.3 Prior to submission of a Request for Mediation, the party(ies) requesting mediation shall:

- .1 if a prime contractor, first submit its claim to the Architect for review.
- .2 if a first-tier or lower-tier subcontractor, first submit its claim to the price contractor with whom it has a contract.
- .3 if the Architect, first submit its claim to the Owner's Representative.

If the submission of the dispute to the foregoing parties as described does not resolve the requesting party's complaint to its satisfaction, then it may make a Request for Mediation as herein described.

§ 15.3.4 The request for Mediation must be made within ten (10) days of the rendering of a decision regarding the matter in controversy by the party specified in subparagraph 15.3.3. Copies of the Request for Mediation shall be sent by certified mail to each party to the dispute and the Owner.

§ 15.3.5 Selection of a Mediator and Scheduling a Mediation Conference.

§ 15.3.5.1 If the parties to the dispute are able to agree on a mediator or a process for selecting a mediator, they shall schedule a date for the mediation to occur within forty-five (45) days of the selection of the mediator.

§ 15.3.5.2 If the parties to the dispute are unable to agree on a mediator or a process for selecting a mediator, the mediator shall be selected in accordance with the following procedures:

- .1 The name of a certified mediator in North Carolina Judicial District 10 shall be selected at random from a list of all mediators certified in Judicial District 10, in accordance with the local rules for Civil Superior Court, Judicial District 10.
- .2 In the event the mediator so selected is unable to serve, the random selection process shall continue until a mediator is selected that can serve as mediator for the dispute.
- .3 Upon selection of a mediator by this method, the mediator shall schedule a date for the mediation to occur within forty-five (45) days of the selection of the mediator.

§ 15.3.6 The cost of mediation shall be divided evenly among the parties to the dispute except that if the Owner is a bona fide party to the dispute, then if there are four or more parties to the suite, the Owner shall be responsible for at lease one-third of the cost of the mediation, and the other parties shall divide the remainder of the cost evenly among themselves.

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§ 15.3.7 If the mediation process does not fully resolve the issue in dispute, the parties may utilize any other remedies provided under the Contract Documents.

§ 15.3.8 The dispute resolution process set forth herein shall not cause or be deemed a cause for delay in any portion of the work, including any portion of the Work that is the subject of the dispute subject to the resolution process.

§ 15.4 ARBITRATION

§ 15.4.1 [Intentionally Deleted.]

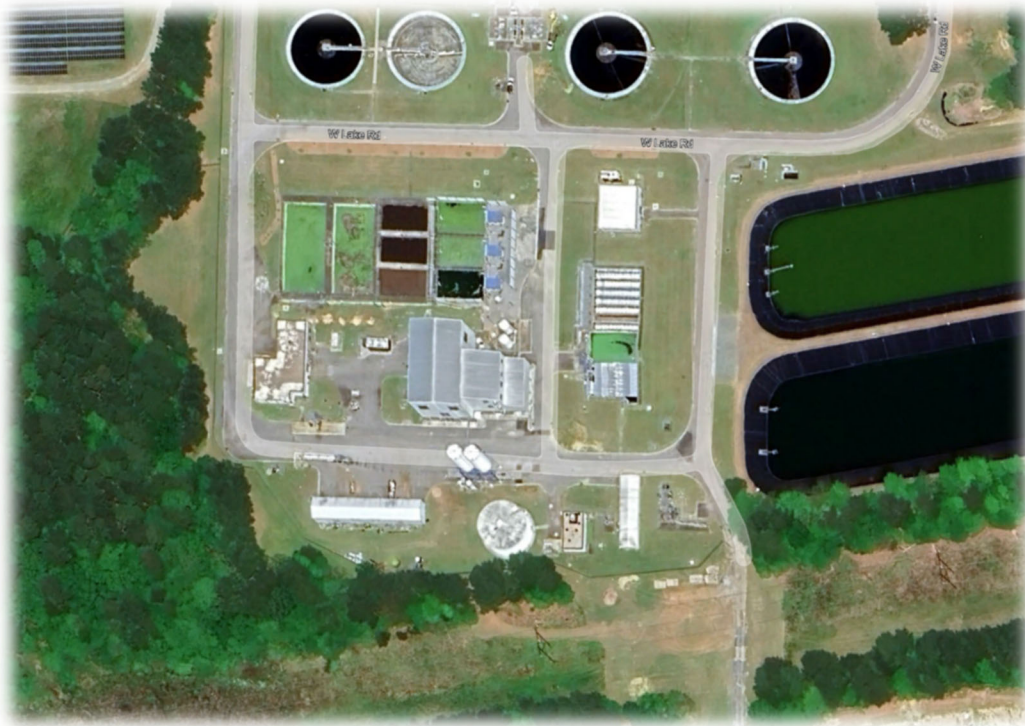
(Paragraphs deleted)



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GEOTECHNICAL REPORT OF SUBSURFACE INVESTIGATION

SCWRF MAINTENANCE BUILDING APEX, NORTH CAROLINA



PREPARED FOR:
TOWN OF CARY
316 N ACADEMY ST
CARY, NORTH CAROLINA 27513

PREPARED BY:
FALCON ENGINEERING, INC.
1210 TRINITY ROAD, SUITE 110
CARY, NORTH CAROLINA 27513

PROJECT NUMBER: G24034.00
JUNE 6, 2024





June 6, 2024

Mr. John D. Holloway
john.holloway@carync.gov
Utilities Business Manager
Town of Cary
316 N Academy St
Cary, North Carolina 27513

Re: Geotechnical Report of Subsurface Investigation

South Cary Water Reclamation Facility (SCWRF) Maintenance Building
4900 W Lake Rd
Apex, North Carolina
Falcon Project No.: G24034.00

Mr. Holloway,

As authorized, Falcon Engineering, Inc. (Falcon) has completed a geotechnical subsurface investigation for the above referenced project. This field investigation was conducted in May 2024. The opinions and observations rendered in this report are based solely on our site reconnaissance, performance of five (5) soil test borings, laboratory testing, engineering evaluation of the data obtained, and generally accepted geotechnical engineering practices and principles. Falcon appreciates the opportunity to have provided geotechnical services to the Town of Cary (Town) for this project. If you have any questions concerning the contents of this report or need additional information, please do not hesitate to contact our office.

Sincerely,

FALCON ENGINEERING, INC.



Allan Paul, PE
Principal / Senior Project Manager

A handwritten signature in black ink, appearing to read "Jeremy R. Hamm".

Jeremy R. Hamm, PE
Principal / Director of Engineering

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SECTION 1: PROJECT INFORMATION

This report presents the field and laboratory test procedures and their results and geotechnical considerations for design and construction of the proposed project. Our investigation was performed in general accordance with the scope of services outlined in our proposal F2024-050 dated April 19th, 2024.

1.1 PROJECT DESCRIPTION

Based on our correspondence with and documents provided, it is our understanding the following apply to the subject property and proposed development:

- The Town is in the planning stages of design and construction for a new maintenance building to be located on the existing SCWRF in Apex, North Carolina.
- Development includes a single-story maintenance building measuring 163'-4" by 45'-0" set on a concrete slab-on-grade with steel columns, beams, and joists or trusses to support the roof.
- Maximum column and wall loads will be on the order of 70 kip and 2.5 kip per foot, respectively.
- Finish Floor Elevation (FFE) will be 1 to 2 feet higher than existing grade (approximately 303'-6" ± 6").

Should any of the above information or assumptions made by Falcon be inconsistent with the planned project, we request that you contact us immediately to allow us to make any necessary modifications to this report.

1.2 SITE DESCRIPTION

The SCWRF is located at 4900 W Lake Rd in Apex, North Carolina as depicted on the Site Vicinity Map in Appendix A of this report. The SCWRF is set in a predominantly suburban area surrounded by residential and undeveloped/wooded parcels. The proposed maintenance building is planned on the southern side of the facility. The proposed footprint encompasses an existing building, asphalt pavement, and grassy areas. The existing building is set to be demolished as part of this project.

1.3 SITE GEOLOGIC DESCRIPTION

The Site is located within the Raleigh Belt of the Piedmont Physiographic Province of North Carolina. The Piedmont Province lies between the Coastal Plain and the Blue Ridge Mountains and occupies about 45 percent of the area of the state. It is characterized by gently rolling, well-rounded hills and long low ridges with a few hundred feet of elevation difference between the hills and valleys. The terrane consists mostly of metamorphosed igneous, volcanic, and sedimentary rocks.

According to the *Geologic Map of the Apex 7.5-Minute Quadrangle, Wake County, North Carolina* (2016), the bedrock beneath the Site is noted as two mapped units separated by the Leesville Fault. The fault runs in a northerly direction located approximately halfway between the two large reservoirs on site. The western mapped unit which contains the proposed maintenance building and much of the SCWRF is a unit of the Cary Metamorphic Suite: Pots Branch Greenstone (**CZpbg**) which is described as light green, gray-green, fine to medium grained rocks interlayered with graphitic mica schist and mica-garnet schist, commonly with kyanite and minor hornblende. The eastern mapped unit is part of the Crabtree Terrane and is noted as Crabtree Creek Gneiss (**CZccg**) described as pink-gray and tan-pink, medium to coarse grained, well foliated and lineated granitic orthogneiss.

1.4 TOPOGRAPHICAL DATA

Publicly available topographical data of the Site was downloaded from the NOAA Data Access Viewer website: <https://coast.noaa.gov/dataviewer/?#/lidar/search/>. The downloaded dataset consists of surface elevations measured via LiDAR between 2014 and present day. Surface data was collected at a resolution of 2 points per meter and is considered Quality Level 2 (QL2). The data was used to create a model of the Site ground surface to determine approximate ground surface elevations at boring locations.

SECTION 2: PURPOSE AND SCOPE

Falcon has performed a geotechnical subsurface investigation for the project. The purpose of this investigation is to provide a general characterization of existing onsite soils, rock, and groundwater conditions, and to provide design and development considerations for site preparation, earthmoving, site excavations, groundwater, fill selection and placement, foundations, and slabs as they relate to observed geotechnical conditions at the site.

The investigation was accomplished through completion of the following tasks:

- Site reconnaissance by Falcon's Geotechnical Engineering personnel.
- Accessing select publicly available imagery and data.
- Performance of five (5) soil test borings.
- Review of subsurface data obtained previously by Falcon nearby.
- Visual-manual classification and stratification of the soil samples according to the Unified Soil Classification System (USCS).
- Laboratory testing of soil samples recovered.
- Engineering analysis of field and laboratory test data.
- Preparation of this formal Geotechnical Report of Subsurface Investigation report summarizing all field test results and our geotechnical considerations for design and construction.

SECTION 3: FIELD INVESTIGATION

3.1 SITE RECONNAISSANCE AND PROJECT SET-UP

Prior to performing soil test borings, Falcon personnel visited the Site to stake the boring locations using a handheld GPS capable of submeter accuracy. Following marking of boring locations, Falcon personnel contacted NC 811 and the facility manager to request underground utilities be located at the Site. Utilities were either marked in the field or noted to be specifically not in conflict with our marked work areas prior to the beginning of our field investigation.

3.2 SOIL TEST BORINGS

On May 16th, 2024, five (5) Standard Penetration Test (SPT) soil borings were advanced to a maximum depth of 20.0 feet below the current ground surface by a CME 75 truck mounted drill rig equipped with hollow stem augers. SPT borings were performed in general accordance with ASTM D1586 “Penetration Test and Split-Barrel Sampling of Soils”. Soil samples were obtained from soil borings at regular intervals using a split-barrel sampler. An automatic hammer was used to advance the sampler. All soil samples were sealed in moisture retarding containers, labeled, and transported to our laboratory for further analysis.

SECTION 4: LABORATORY TESTING

All soil samples were visually-manually classified by our geotechnical staff in accordance with ASTM D2488 “Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)” and the Unified Soil Classification System (USCS). During review of the collected soil samples, staff selected several representative samples for further analysis in Falcon’s soils laboratory.

- One (1) split-spoon sample (SS-#) was tested for natural moisture content (ASTM D2216), Atterberg limits (ASTM D4318), and mechanical sieve analysis (ASTM D6913).
- An additional nine (9) split-spoon samples were tested for natural moisture content only.

Moisture content testing results are shown on the individual Test Boring Logs in Appendix B of this report. Detailed soil laboratory testing results can be found in Appendix C of this report. A summary of soil classification test results is included in the Table below:

TABLE 4.1: LABORATORY INDEX TESTING SUMMARY

SAMPLE ID	BORING ID	DEPTH (FT)	NATURAL MOISTURE CONTENT (%)	PERCENT PASSING			ATTERBERG LIMITS			USCS SYMBOL
				#10	#40	#200	LL	PL	PI	
SS-01	B-01	6.0-7.5	22.2	98	92	69.1	32	28	4	ML

SECTION 5: SUBSURFACE CONDITIONS

5.1 SURFACE MATERIALS, SOIL, AND ROCK

Surface materials present at the boring locations consisted of topsoil, bituminous concrete (asphalt), and aggregate base. Topsoil thickness measured 2 inches at four (4) locations and asphalt thickness measured 3.5 inches at location B-03. Approximately 19 inches of aggregate base course (ABC Stone) was present beneath the asphalt and approximately 10 inches of ABC Stone was present beneath the topsoil at B-05. Thicker surface materials may exist elsewhere in areas not drilled.

Fill soils are best described as man-placed deposits of materials used to raise or restore grades that typically include soil and rock but can sometimes consist of trash and debris. Fill soils were identified in all five (5) borings extending approximately 8.0 to 17.0 feet below the current ground surface. The recovered sample of fill was either visually-manually or laboratory classified as silty sand (SM) or silt (ML). Relative moisture of fill samples recovered indicates dry to moist conditions. Fill likely exists elsewhere within the project area, extending to various depths, in areas not explored.

Residual soils are formed from the in-place weathering of the parent bedrock. Residual soils were identified beneath the fill at four (4) locations extending to the boring termination depth of 20.0 feet at four (4) locations. Residuum may be present beneath the fill at Boring B-01 but between the sampling intervals. Recovered samples of residuum were visually-manually or laboratory classified as silty sand (SM) or silt (ML). Relative moisture contents of samples recovered indicates moist conditions.

Partially Weathered Rock (PWR) is a very hard geomaterial with properties intermediate of soil and rock and defined as a geomaterial that yields 6 inches of penetration or less after 50 blows by a split-spoon sampler when subjected to Standard Penetration Testing. PWR was encountered at boring B-01 at a depth of approximately 17.0 feet below the current ground surface corresponding to approximate elevation of 283.5 feet. Samples of recovered PWR consisted of weathered gneiss.

5.2 GROUNDWATER

After each boring was drilled, open boreholes were inspected for the presence of groundwater. No immediate, zero-hour groundwater was observed in any borehole. Boring B-03 was backfilled immediately with auger cuttings and patched with cold patch for safety reasons. The remaining four (4) boreholes were left open for approximately 24 hours to allow groundwater to stabilize. No groundwater was observed in the boreholes after the waiting period. Following the final observations and measurements, boreholes were backfilled with soil cuttings to approximately the same elevation as the surrounding area.

SECTION 6: GEOTECHNICAL RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

A summary of geotechnical issues with the potential to impact design and construction is provided below. Detailed discussions of each of these issues are provided in the sections that follow.

- **Moisture sensitive soil is** present onsite. This soil is sensitive to damage from exposure to water. Earthmoving operations performed during the wet winter months (generally November to March) or during periods of inclement weather will be difficult and time consuming.
- **Existing fill soils** on site are variable in consistency and composition and will likely be the primary bearing stratum for the proposed building. The Contract Documents should stipulate that after excavation, the entire bearing surface should be compacted with a jumping-jack style compactor or a trench roller for a minimum of 4 passes. We anticipate that some areas may be unstable and will require further remediation. Therefore, the Contract Documents should include an allowance for foundation undercut and backfill with Structural Fill or Select Granular Fill.

6.1 EARTHMOVING

6.1.1 ENGINEERING BEHAVIOR OF SOILS

After demolition and/or stripping activities, the onsite soils will be exposed to weather events. Extended periods of rain or intrusion of runoff may damage otherwise suitable site subgrades necessitating repair or remediation. Excessive degradation of fill soils can be mitigated by compacting near-surface lifts at, or wet of, optimum moisture and achieving at least 98 percent compaction.

Earthmoving operations performed during wet, winter months (November to March) will be difficult and time consuming (i.e., expensive). Traditional drying operations will be minimally effective during this time. We suggest the majority of earthmoving operations be performed during drier months.

6.1.2 INSPECTION OF SITE SUBGRADES

All areas designated to receive fill shall be proofrolled using a fully-loaded tandem-axle dump truck. Any unstable areas should be evaluated by one of Falcon's Geotechnical Engineers or a representative thereof to determine the type and extent of repairs or stabilization measures which may be necessary.

Once rough-grading is complete and approximate slab subgrades are established, all structural and/or pavement areas should be proofrolled using a fully-loaded tandem-axle dump truck. Any unstable areas and/or highly elastic/plastic soils exposed at subgrade should be evaluated by one of Falcon's Geotechnical Engineers or a representative thereof to determine the type and extent of repairs or stabilization measures which may be necessary.

The outcome of site proofrolling may vary depending on recent precipitation events and time of year due to the moisture sensitivity of the site soils. Grading activities conducted during wet periods will damage and disturb prepared subgrades. Site subgrades may be preserved by capping off with ABC stone and applying a slight crown to promote drainage. Any usage of aggregate for subgrade protection which is not incorporated into the final work should be considered incidental.

We recommend including an undercut allowance equal to at least 50 percent of the total pavement area and total slab area to a depth of 8 inches. This volume should be calculated by others as the design progresses. The resulting excavation should be backfilled with ABC stone or crushed stone screenings (NCDOT CLASS II Type 1 Select Material).

6.2 SITE EXCAVATION

6.2.1 GENERAL EXCAVATION

Normal sized earth moving equipment such as rubber-tire backhoe and small to medium sized, track-mounted hydraulic excavators should be suitable to excavate most subsurface materials to the proposed depths.

6.2.2 ROCK EXCAVATION

We did not encounter rock in our exploration and do not anticipate rock excavation will be required for this project; however, the Contract Documents should clearly define rock and rock payment lines.

6.2.3 EXCAVATION SAFETY

All excavations deeper than 4 feet must conform to applicable sections of the Construction Industry Occupational Safety and Health Administration (OSHA) Standards (29CFR1926). In general, compliance will require either sloping back excavations or the use of trench boxes or temporary shoring systems, or some combination of both. The referenced (OSHA) standard should be reviewed for requirements regarding use of sloping and/or trench boxes. The shoring system(s) should be designed to resist lateral earth stresses from existing soils and any nearby structures, account for any adjacent roadways or other infrastructure, and include any surcharge loading for construction equipment or public traffic. Designs should include an appropriate hydrostatic pressure to account for rises in groundwater levels and/or water infiltrating the retained soils. The selected system should consider this condition and the design should address feasible penetration depth. Subsurface conditions, depth of excavations, and horizontal and vertical space constraints will dictate the design of the shoring system along with other considerations such as local availability of materials and equipment. It is the contractor's responsibility to design and construct stable, temporary excavations as part of their safety procedure in accordance with local, state, and federal safety regulations. Falcon does not assume responsibility for construction safety or the contractor's or other party's compliance with applicable safety or other regulations.

6.3 FILL SELECTION, PLACEMENT, AND BACKFILL

6.3.1 MATERIAL SELECTION

Structural Fill is material used to raise or restore grades beneath structures, beneath pavements, in embankments, and behind retaining walls. Structural fill or backfill used within 24 inches of structures and pavements shall have a plasticity index of 26 or less, a maximum dry unit weight of at least 90 pounds per cubic foot, be free of debris, waste, hazardous materials, and particles larger than 3 inches in any dimension, and contain less than 3 percent organic material by weight.

Non-structural Fill is soil material used to raise or restore grades outside of pavements and structures in grassy areas, landscaped areas, wooded areas, etc. Non-structural fill should have a maximum particle size of 6 inches in any dimension and be free of large organic matter. No plasticity restriction is necessary for non-structural fill.

Select Granular Material is a quarried stone product such as crushed stone screenings, concrete sand, aggregate base course, engineered fill, or processed fill.

6.3.2 PLACEMENT AND COMPACTION

Fill and backfill operations should be continuously monitored and documented. Fill and backfill should be placed in 8 to 10-inch loose lifts when compacted with large, ride-on style compaction equipment. Fill and backfill should be placed in 4 to 6-inch

loose lifts when compacted with hand-guided compaction equipment. We recommend fill and backfill be placed and compacted to a uniform, maximum dry unit weight as noted in accordance with the following:

TABLE 6.1: FILL AND BACKFILL REQUIREMENTS

LOCATION	MATERIAL	COMPACTION REQUIREMENTS	MOISTURE REQUIREMENTS
Beneath structures, pavements, and behind retaining walls	Structural Fill	95% per ASTM D698	2% dry to 2% wet of optimum moisture
Non-Structural Areas	Non-structural Fill	90% per ASTM D698	3% dry to 3% wet of optimum moisture

Soil compaction should be tested in accordance with the sand cone, drive tube, or nuclear density gauge methods at the following minimum frequencies:

TABLE 6.2: MINIMUM COMPACTION TESTING FREQUENCIES

LOCATION	RESTRICTIONS
Trench backfill	One (1) test per lift, per 250 linear feet of backfill placed, per trench, per day
Mass fill areas	One (1) test per lift, per 2,500 square feet of fill placed, per fill area, per day

6.4 GROUNDWATER, DEWATERING, AND DRAINAGE

6.4.1 GROUNDWATER MECHANICS

We do not anticipate the groundwater table to be encountered in any proposed excavations based on the groundwater measurements obtained during the field investigation. Groundwater typically flows in the direction of surface water and will fluctuate with environmental variations and seasonal conditions, such as the frequency and magnitude of rainfall.

6.4.2 PERCHED GROUNDWATER

Trapped or perched groundwater may be present within existing fill soils. In addition, perched groundwater may manifest during wetter times of the year or following periods of heavy or extended precipitation. Perched water is typically finite in volume and may slowly percolate into open excavations for several hours or days. It can typically be managed using ditches for diversion or pumping from a sump area in the lowest part of the excavation.

6.4.3 SITE DRAINAGE AND DIVERSION

Surface water can generally be controlled or mitigated by constructing drainage ditches, berms, and/or by grading the site to sheet flow toward natural/manmade drainage features and away from excavations. The onsite soils are generally poorly-drained and perched water may become an issue during construction if grading operations are not staged adequately. Trench work should generally progress from low to high elevations to facilitate the control of perched groundwater. The contractor should sequence grading operations to provide surface drainage and/or control groundwater by digging gravel pits and placing submersible pumps to intercept groundwater percolating into excavations.

6.5 FOUNDATION CONSIDERATIONS

6.5.1 SHALLOW FOUNDATIONS

We recommend the load bearing columns and walls of the proposed structure be supported on single, combined, or continuous shallow foundations bearing on approved existing fill or new, controlled structural fill/select aggregate material placed in accordance with the recommendations herein, and be designed for a net allowable bearing capacity of 1,500 psf. We recommend including an allowance for undercut and backfill with structural fill equal to ½ of the total foundation area removed to a depth of 18 inches. Once the foundation plan is available, this volume should be calculated by others.

Based on the subsurface conditions encountered, the total settlement is estimated to be 1 inch or less and the amount of differential settlement across site walls and structures is expected to be ½ inch or less provided the recommendations/requirements described herein are adhered to. The magnitude of settlement will depend on actual structural loads, variations in the subsurface soil profile, and the quality of earthwork and foundation construction.

A coefficient of sliding friction of 0.35 may be used in design for calculating sliding resistance for concrete footings cast against properly prepared foundation subgrades.

6.5.2 SEISMIC CONSIDERATIONS

According to the North Carolina Building Code 2018 and the subsurface data obtained, the proposed structure should be designed for a Seismic Site Classification of D.

6.5.3 ADDITIONAL CONSIDERATIONS

Foundation subgrades consisting of soils with a PI greater than 26 should be undercut at least 24 inches and backfilled with structural fill. In addition, undercut of soft/unstable soil at bearing elevation may be required as well. Soft/wet but otherwise suitable soils may be re-used as Structural Fill provided they are moisture conditioned and properly compacted in accordance with the recommendations stated herein. Washed stone of any gradation (#78M, #67, or #57) shall not be used as foundation undercut backfill.

Expansion joints should be provided at building breaks and on exterior walls at regular intervals in accordance with ACI guidelines. Exterior foundations and foundations in unheated areas should be designed to bear at least 18 inches below finished grades for frost protection. Footings should be designed such that no utility lines, utility line excavation, or any other footings are located within a 1:1 zone of influence of the subject footing edge.

6.5.4 FOUNDATION SUBGRADE EVALUATION

The availability of the allowable bearing pressure is predicated upon Falcon's ability to evaluate, inspect, and/or test all foundation subgrades to verify subsurface conditions prior to placement of concrete and reinforcements. Inspection/evaluation of bearing capacity of shallow foundation subgrades should be performed by a Senior Inspector working closely with an Engineer. Offending materials encountered at and below footing subgrades will require repair under the direction of Falcon's Geotechnical Engineer or a representative thereof.

6.6 SLABS-ON-GRADE AND PAVEMENT

The building pad should be graded with a crown or cross slope to promote positive drainage and prevent ponding of water. The contractor is responsible for maintaining the building pad and any damage to the building pad caused by improper surface water management or equipment traffic shall be repaired by the contractor at no cost to the Owner.

We recommend placing 6 inches of compacted NCDOT Aggregate Base Course (ABC Stone) or #57 washed stone to protect the subgrade after it has been compacted and proofrolled. Design of the floor slab may be based on a modulus of subgrade reaction of 175 pci as related to a standard 12-inch diameter plate load test assuming a 6-inch-thick ABC stone base and 125 pci assuming a 6-inch-thick washed stone base.

The properties of the concrete used in slab-on-grade construction should be specified by the Structural Engineer. Liberal jointing patterns should be employed throughout the slab areas per ACI guidelines for crack control purposes.

The current pavement section thickness present at boring B-03 consisted of 3.5 inches of asphalt underlain by 19 inches of aggregate base course. If the pavement is only subject to the occasional heavy-duty traffic (e.g., 1 to 2 heavy trucks per week) then we recommend any new asphalt match the thickness of the existing asphalt and be underlain by at least 8 inches of compacted aggregate base course (ABC stone). To meet NCDOT's recommended minimum pavement layer and lift thicknesses, we recommend placing 1.5 inches of S9.5(B, C, or D) asphalt over 2.5 inches of I19.0C asphalt.

SECTION 7: ADDITIONAL CONSIDERATIONS

This Geotechnical Report of Subsurface Investigation is intended to be a design level report. Therefore, as the project progresses through the remaining design phase, bidding, and construction, we would be pleased to provide a cost proposal to you to perform any or all the following additional tasks:

- Review relevant portions of the plans and specifications for compliance with our recommendations.
- Provide Construction Materials Testing (CMT) services during the construction phase of the project.

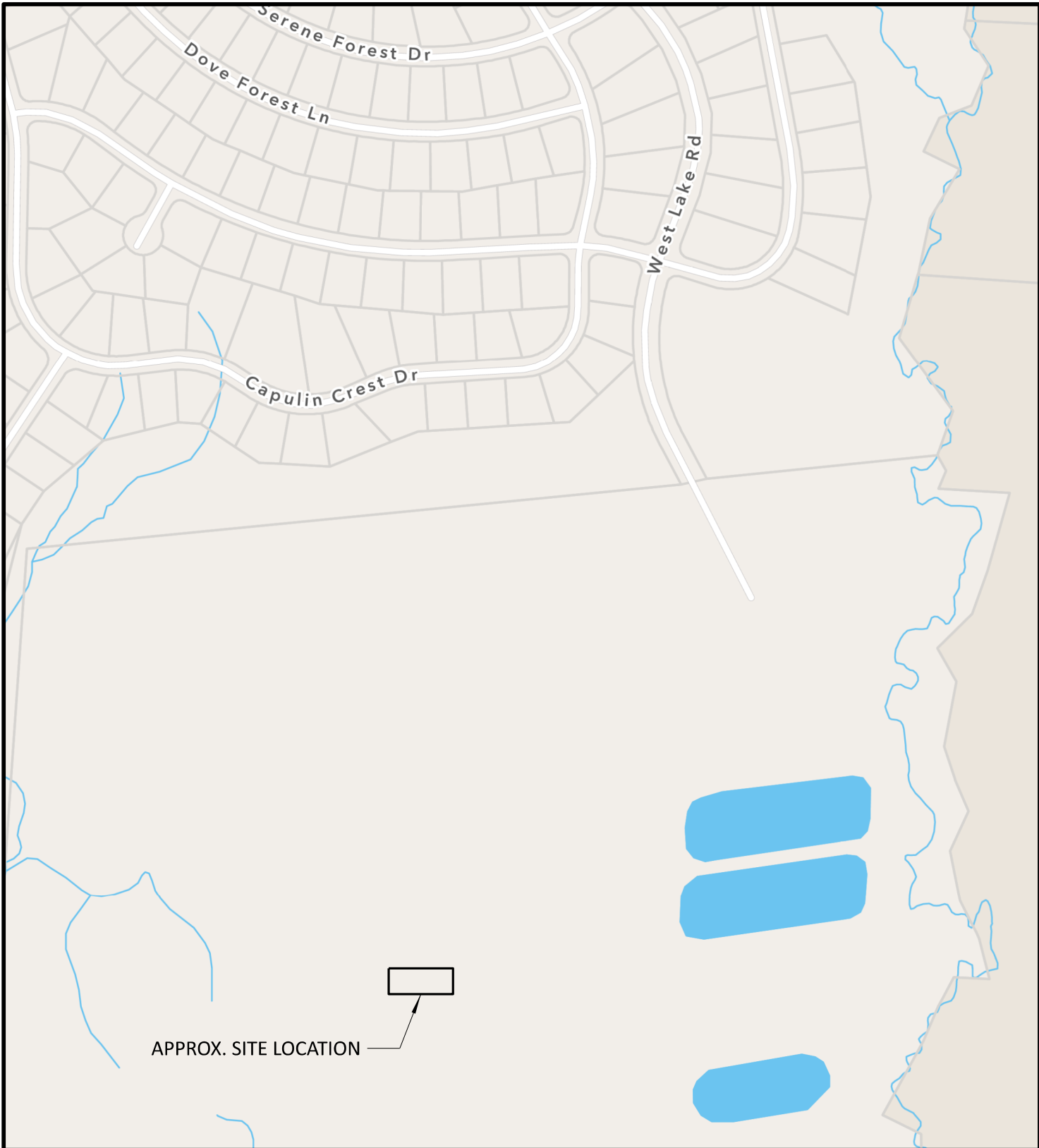
SECTION 8: CLOSURE

Recommendations and evaluations provided by Falcon are based on the project description as outlined herein. Modifications to our recommendations and evaluations will be required as design progresses. Recommendations in this report are based on data obtained from our subsurface field exploration and laboratory testing programs. The nature and extent of variations between borings may not become evident until construction, although more insight may be provided by additional field testing data.

Our professional services for this project have been performed in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made. Falcon appreciates this opportunity to have provided you with geotechnical engineering services for this project. If you have any questions regarding this report, please contact our office at 919.871.0800.


APPENDIX A

SITE VICINITY MAP A-1



NOTES:

1. Imagery obtained from Wake County GIS website: <https://maps.raleighnc.gov/imaps/>

SHEET NAME: SITE VICINITY MAP		 <p>FALCON ENGINEERING, INC. 1210 TRINITY ROAD, SUITE 110 CARY, NC 27513 PHONE: 919.871.0800 www.falconengineers.com</p>
PROJECT NAME: SCWRD MAINTENANCE BUILDING		
PROJECT NO.: G24034.00		
PROJECT LOCATION: APEX, NC		SCALE: 1"=400'
INVESTIGATED BY: DJG	DRAWN BY: EJB	CHECKED BY: ASP
		DATE: 2024-05-30

APPENDIX B

LEGEND TO SOIL AND ROCK CLASSIFICATIONS AND SYMBOLS B-1

BORING LOCATION PLAN..... B-2

TEST BORING LOGS B-3

SUMMARY OF SUBSURFACE MATERIALS..... B-4

LEGEND TO SOIL AND ROCK CLASSIFICATION AND SYMBOLS

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)	FRACTURE SPACING	CONSISTENCY OF COHESIVE SOILS		RELATIVE DENSITY OF COHESIONLESS SOILS
SYMBOLS	TERM	TERM	CONSISTENCY	STANDARD PENETRATION BLOWS PER FOOT
BITUMINOUS CONCRETE (ASPHALT)	VERY WIDE	MORE THAN 10 FEET	VERY SOFT	0 TO 2
CONCRETE	WIDE	3 TO 10 FEET	SOFT	3 TO 4
AGGREGATE BASE COURSE	MODERATELY CLOSE	1 TO 3 FEET	FIRM	5 TO 8
TOPSOIL	CLOSE	0.16 TO 1 FEET	STIFF	9 TO 15
LOW-PLASTICITY ORGANIC SILT/CLAY (OL)	VERY CLOSE	LESS THAN 0.16 FEET	VERY STIFF	16 TO 30
HIGH-PLASTICITY ORGANIC SILT/CLAY (OH)			HARD	31 TO 50
PEAT (PT)			VERY HARD	OVER 50
WELL-GRADED GRAVEL (GW)				
POORLY-GRADED GRAVEL (GP)				
SILTY GRAVEL (GM)				
CLAYEY GRAVEL (GC)				
WELL-GRADED SAND (SW)				
POORLY-GRADED SAND (SP)				
SILTY SAND (SM)				
CLAYEY SAND (SC)				
SILT (ML)				
ELASTIC SILT (MH)				
LEAN CLAY (CL)				
PLASTIC CLAY (CH)				
PARTIALLY WEATHERED ROCK				
NON-CRYSTALLINE ROCK				
CRYSTALLINE ROCK				
COASTAL PLAIN SEDIMENTARY ROCK				
MAN PLACED FILL OR BACKFILL				
ALLUVIAL SOILS				
IMMEDIATE WATER LEVEL				
STATIC WATER LEVEL				
PIPE INVERT ELEVATION				
AUGER PROBING				
SPT BORING				
SPT BORING WITH ROCK CORE				
CONE PENETRATION TEST SOUNDING				
HAND AUGER + TEST				
ROD SOUNDING				
TEST PIT				
SPT N-VALUE				
SPLIT SPOON SAMPLE				
BULK SAMPLE				
SHELBY TUBE SAMPLE				
ROCK SAMPLE				

WEATHERING	
FRESH	Rock fresh, crystals bright, few joints may show slight staining. Rock rings under hammer if crystalline.
VERY SLIGHT (V. SLI.)	Rock generally fresh, joints stained, some joints may show thin clay coatings if open, crystals on a broken specimens face shine brightly. Rock rings under hammer blows if of a crystalline nature.
SLIGHT (SLI.)	Rock generally fresh, joints stained and discoloration extends into rock up to 1 inch. Open joints may contain may contain clay. In granitoid rocks some occasional feldspar crystals are dull and discolored. Crystalline rock rings under hammer blows.
MODERATE (MOD.)	Significant portions of rock shows discoloration and weathering effects. In granitoid rocks, most feldspars are dull and discolored, some show clay. Rock has dull sound under hammer blows and show significant loss of strength as compared with fresh rock.
MODERATE SEVERE (MOD. SEV.)	All rocks except quartz discolored or stained. In granitoid rocks, all feldspars are discolored and a majority show kaolinitization. Rocks shows severe loss of strength and can be excavated with a geologist's pick. Rock gives "clunk" sound when struck. If tested would yield SPT refusal.
SEVERE (SEV.)	All rocks except quartz discolored or stained. Rock fabric clear and evident but reduced in strength to strong soil. In granitoid rocks all feldspars are kaolinitized to some extent. Some fragments of strong rock usually remain. If tested, yields SPT n-values > 100 bpt.
VERY SEVERE (V. SEV.)	All rocks except quartz discolored or stained. Rock fabric elements are discernible but the mass is effectively reduced to soil status, with only fragments of strong rock remaining. Saprolite is an example of rock weathered to a degree such that only minor vestiges of the original rock fabric remain. If tested, yields SPT n-values < 100 bpt.
COMPLETE	Rock reduced to soil. Rock fabric not discernible or discernible only in small and scattered concentrations. Quartz may be present as dikes or stringers. Saprolite is also an example.

ROCK HARDNESS	
VERY HARD	Cannot be scratched by knife or sharp pick. Breaking of hand specimens requires several hard blows of the geologist's pick.
HARD	Can be scratched by knife or pick only with difficulty. Hard hammer blows required to detach hand specimens.
MODERATELY HARD	Can be scratched by knife or pick. Gouges or grooves to 0.25 inches deep can be excavated by hard blow of a geologist's pick. Hand specimens can be detached with moderate blows.
MEDIUM HARD	Can be grooved or gouged 0.5 inches deep by firm pressure of knife or pick point. Can be excavated in small chips to pieces 1 inch maximum size by hard blows of the point of a geologist's pick.
SOFT	Can be grooved or gouged readily by knife or pick. Can be excavated in fragments from chips to several inches in size by moderate blows of a pick point. Small, thin pieces can be broken by finger pressure.
VERY SOFT	Can be carved with knife. Can be excavated readily with point of pick. Pieces 1 inch or more in thickness can be broken by finger pressure. Can be scratched readily by fingernail.

ROCK DEFINITION	
Hard rock is non-coastal plain material that when tested, would yield SPT refusal. An inferred rock line indicates the level at which non-coastal plain material would yield SPT refusal. SPT refusal is penetration by a split-spoon sampler equal to or less than 0.1 foot per 50 blows. In non-coastal plain material, the transition between soil and rock materials are typically divided as follows:	
PARTIALLY WEATHERED ROCK (PWR)	Non-coastal plain material that yields SPT N-values > 100 blows per foot.
CRYSTALLINE ROCK (CR)	Fine to coarse grained, igneous and metamorphic rock that would yield SPT refusal if tested. Rock type includes granite, gneiss, gabbro, schist, etc.
NON-CRYSTALLINE ROCK (NCR)	Fine to coarse grained, metamorphic and non-coastal plain sedimentary rock that would yield SPT refusal if tested. Rock type includes phyllite, slate, sandstone, etc.
COASTAL PLAIN SEDIMENTARY ROCK (CP)	Coastal plain sediments cemented into rock but may not yield SPT refusal. Rocky type includes limestone, sandstone, cemented shell beds, etc.


ABBREVIATIONS					
ABC	Aggregate base course	FIAD	Filled immediately after drilling	RES	Residuum
ALLUV	Alluvium	FOSS	Fossiliferous	SAP	Saprolitic
AR	Auger refusal	FRAC	Fractured	S	Soft
BC	Bituminous concrete (asphalt)	FRAGS	Fragments	SAT	Saturated
BLDR	Boulder	GR	Gravel	SD	Sand
BPF	Blows per foot	GS	Specific gravity	SDY	Sandy
BT	Boring terminated	GW	Groundwater	SED	Sediments
CALC	Calcareous	HR	Hard rock	SL	Silt, silty
CI	Caved-in	MED	Medium	SLI	Slightly
CL	Clay	MIC	Micaceous	SPT	Standard penetration test
CLY	Clayey	MOT	Mottled	SWR	Soft weathered rock
COB	Cobble	NS	No sample taken	TCR	Tricone refusal
CSE	Coarse	ORG	Organic	TS	Topsoil
DPT	Dynamic penetration test	PP	Pocket penetrometer	VST	Vane shear test
EST	Estimated	PWR	Partially weathered rock	V	Very
F	Fine	REF	Refusal	W/	With

TERMS AND DEFINITIONS

- ALLUVIUM: soils which have been transported and deposited by water.
- AQUIFER: a water bearing formation or strata.
- ARENACEOUS: applied to rocks that have been derived from sand or that contain sand. Argillaceous: applied to all rocks or substances composed of clay minerals, or having a notable proportion of clay in their composition, as shale/slate/etc.
- ARTESIAN: groundwater that is under sufficient pressure to rise above the level at which it is encountered, but which does not necessarily rise to or above the ground surface.
- CALCAREOUS: soils which contain appreciable amounts of calcium carbonate.
- COLLUVIUM: rock fragments mixed with soil deposited by gravity on a slope or bottom of a slope.
- CORE RECOVERY: total length of all material recovered in the core barrel divided by total length of core run and expressed as a percentage.
- DIKE: a tabular body of igneous rock that cuts across the structure of adjacent rocks or cuts massive rock.
- DIP: the angle at which a stratum or any planar feature is inclined from the horizontal.
- DIP DIRECTION: the direction or bearing of the horizontal trace of the line of dip, measured clockwise from north.
- FAULT: a fracture or fracture zone along which there has been displacement of the sides relative to one another parallel to the fracture.
- FILL: man-made deposits of natural soils or rock products and waste materials.
- FISSLE: a property of splitting along closely spaced parallel planes.
- FLOAT: rock fragments on surface near their original position and dislodged from parent material.
- FLOOD PLAIN: land bordering a stream, built of sediments deposited by the stream.
- FORMATION: a mappable geologic unit that can be recognized and traced in the field.
- JOINT: fracture in rock along which no appreciable movement has occurred.
- LEDGE: a shelf-like ridge or projection of rock whose thickness is small compared to its lateral extent.
- LENS: a body of soil or rock that thins out in one or more directions.
- MOTTLED: irregularly marked with spots of different colors. Mottling in soils usually indicates poor aeration and lack of good drainage.
- PERCHED WATER: water maintained above the normal groundwater level by the presence of an intervening impervious stratum.
- RESIDUUM: soil formed in place by weathering of the parent rock.
- ROCK QUALITY DESIGNATION (RQD): a measure of rock quality described by: total length of rock segments equal to or greater than 4 inches divided by the total length of core run and expressed as a percentage.
- SAPROLITE: residual soil which retains the relic structure or fabric of the parent rock.
- SILL: an intrusive body of igneous rock of approximately uniform thickness and relatively thin compared with its lateral extent, which has been emplaced parallel to the bedding or schistosity of the intruded rocks.
- SLICKENSIDE: polished and striated surface that results from friction along a fault or slip plane.
- STANDARD PENETRATION TEST (SPT): number of blows of a 140 pound hammer falling 30 inches required to produce a penetration of 1 foot (N-value or blows per foot) into soil with a 2 in outside diameter split spoon sampler. SPT refusal is less than 0.1 foot penetration with 50 blows.
- STRATA CORE RECOVERY: total length of strata material recovered divided by total length of stratum and expressed as a percentage.
- STRATA ROCK QUALITY DESIGNATION: a measure of rock quality described by total length of rock segments within a stratum equal to or greater than 4 inches divided by the total length of strata and expressed as a percentage.
- STRATUM: a section of a formation consisting of the same kind of material throughout.
- TOPSOIL: surface soils usually containing organic material.

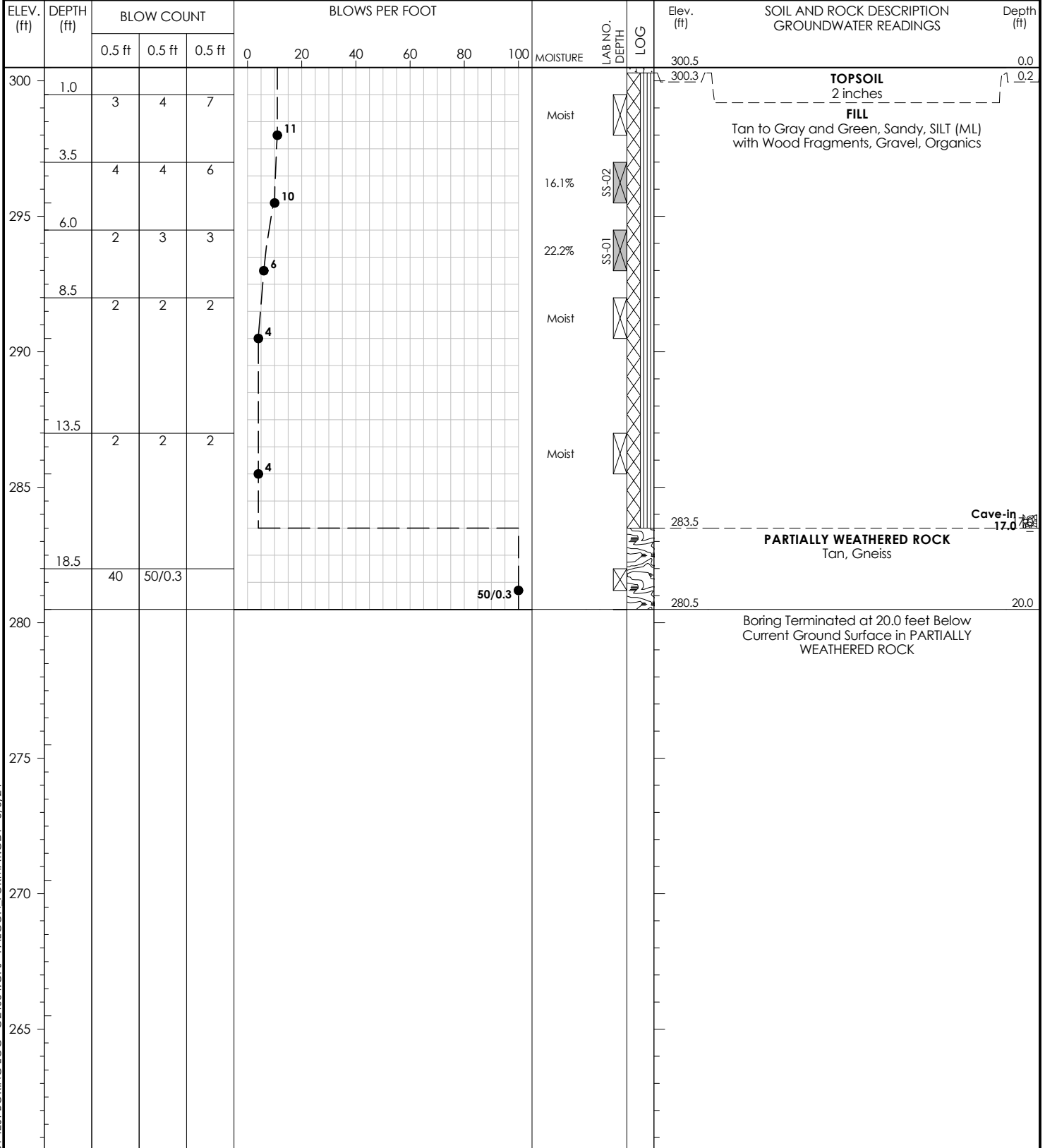


NOTES:
 1. Georeferenced aerial imagery obtained from www.NCOneMap.gov.

SHEET NAME: BORING LOCATION PLAN		 <p>FALCON ENGINEERING, INC. 1210 TRINITY ROAD, SUITE 110 CARY, NC 27513 PHONE: 919.871.0800 www.falconengineers.com</p>
PROJECT NAME: SCWRD MAINTENANCE BUILDING		
PROJECT NO.: G24034.00		
PROJECT LOCATION: APEX, NC		SCALE: 1"=50'
INVESTIGATED BY: DJG	DRAWN BY: ASP	CHECKED BY: JRH
		DATE: 2024-05-31



PROJECT NO. G24034.00	PROJECT LOCATION Apex, NC	LOGGED BY Goodnight, D.	GROUND WATER	0 HOUR	STATIC
PROJECT NAME SCWRF Maintenance Building			HOLE	Dry	Dry
BORING NO. B-01	BORING LOCATION See Boring Location Plan		DEPTH		
ELEVATION (ft) 300.5	NORTHING (ft) 691541	DRILL MACHINE CME 75 Truck	DATE	5/16/2024	5/17/2024
TOTAL DEPTH (ft) 20.0	EASTING (ft) 2072312	DRILLER Charbonneau, C.	SURFACE WATER DEPTH (ft) N/A		
DATE STARTED 5/16/2024	DATE COMPLETED 5/16/2024	DRILL METHOD Hollow Augers	HAMMER TYPE Automatic		



01 TEST BORING LOG_G24034.GPJ FALCON FORMAT.GDT 6/6/24

Vertical Scale: 1"=5'



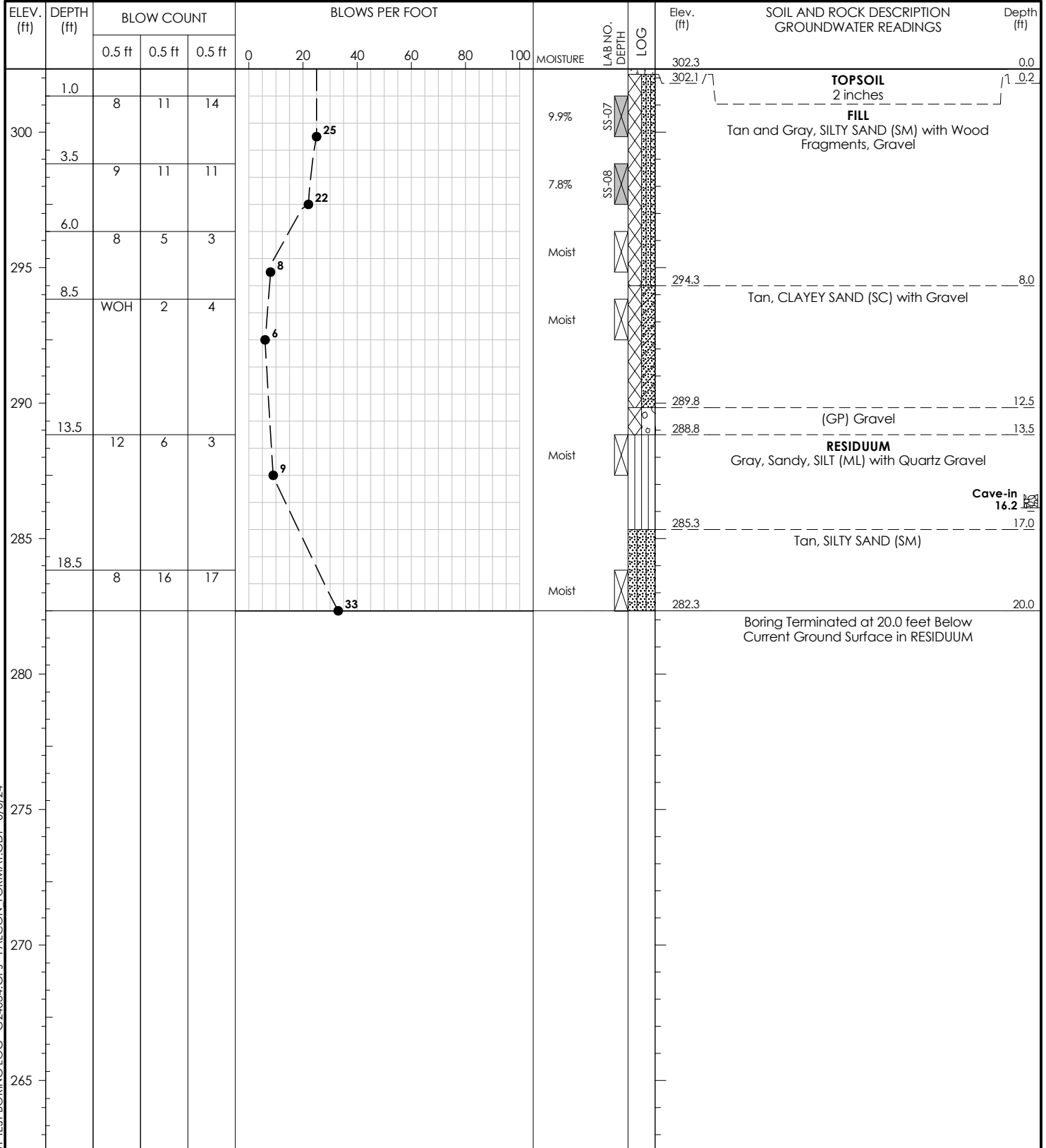
PROJECT NO. G24034.00		PROJECT LOCATION Apex, NC			LOGGED BY Goodnight, D.		GROUND WATER	0 HOUR	STATIC								
PROJECT NAME SCWRF Maintenance Building		BORING NO. B-02			BORING LOCATION See Boring Location Plan		HOLE	Dry	Dry								
ELEVATION (ft) 299.4		NORTHING (ft) 691500		DRILL MACHINE CME 75 Truck		DEPTH											
TOTAL DEPTH (ft) 20.0		EASTING (ft) 2072308		DRILLER Charbonneau, C.		DATE	5/16/2024	5/17/2024									
DATE STARTED 5/16/2024		DATE COMPLETED 5/16/2024		DRILL METHOD Hollow Augers		SURFACE WATER DEPTH (ft) N/A											
						HAMMER TYPE Automatic											
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					MOISTURE	LAB NO.	DEPTH	LOG	Elev. (ft)	SOIL AND ROCK DESCRIPTION	GROUNDWATER READINGS	Depth (ft)
		0.5 ft	0.5 ft	0.5 ft	0	20	40	60	80	100				299.4			0.0
	1.0	2	3	2										299.2	TOPSOIL 2 inches		0.2
	3.5	2	3	4	5						16.7%	SS-03			FILL Tan, SILTY SAND (SM) with Gravel		
295	6.0	2	2	3	7						18.7%	SS-04		293.9			5.5
	8.5	2	3	3	5						Moist				Tan and Gray, Sandy, SILT (ML) with Organics, Gravel		
290	13.5	2	1	2	6						Moist						
285	18.5	12	26	32	3						Moist			282.9	RESIDUUM Tan, SILTY SAND (SM) Saprolitic		16.2
280					58						Moist			279.4			20.0
															Boring Terminated at 20.0 feet Below Current Ground Surface in RESIDUUM		

01 TEST BORING LOG: G24034.GPJ FALCON FORMAT.GDT 6/6/24

Vertical Scale: 1"=5'



PROJECT NO. G24034.00	PROJECT LOCATION Apex, NC	LOGGED BY Goodnight, D.	GROUND WATER	0 HOUR	STATIC
PROJECT NAME SCWRF Maintenance Building			HOLE	Dry	Dry
BORING NO. B-04	BORING LOCATION See Boring Location Plan		DEPTH		
ELEVATION (ft) 302.3	NORTHING (ft) 691491	DRILL MACHINE CME 75 Truck	DATE	5/16/2024	5/17/2024
TOTAL DEPTH (ft) 20.0	EASTING (ft) 2072471	DRILLER Charbonneau, C.	SURFACE WATER DEPTH (ft) N/A		
DATE STARTED 5/16/2024	DATE COMPLETED 5/16/2024	DRILL METHOD Hollow Augers	HAMMER TYPE Automatic		



01 TEST BORING LOG: G24034.GPJ FALCON FORMAT.GDT 6/6/24

Vertical Scale: 1"=5'



FALCON ENGINEERING, INC.
 1210 TRINITY ROAD, SUITE 110
 CARY, NC 27513

PHONE: 919.871.0800
 www.falconengineers.com

SUMMARY OF SUBSURFACE MATERIALS

Project No.: G24034.00

Project Name: SCWRF Maintenance Building

Project Location: Apex, NC

Boring			Surface Thickness (in)				Fill Thickness (ft)	Alluvium Thickness (ft)	Residuuum		PWR		Rock		Borehole/Groundwater			
ID	Depth	Elev.	Asphalt		Agg. Base	Topsoil			Depth (ft)	Elev. (ft)	Depth (ft)	Elev. (ft)	Depth (ft)	Elev. (ft)	0-hour		24-hour	
													Depth		Elev.			
B-01	20.0	300.5				2	16.8			17.0	283.5			Dry	---	Dry	---	
B-02	20.0	299.4				2	16.3	16.5	282.9					Dry	---	Dry	---	
B-03	20.0	301.9	4		19		10.1	12.0	289.9					Dry	---	FIAD	---	
B-04	20.0	302.3				2	13.3	13.5	288.8					Dry	---	Dry	---	
B-05	20.0	302.1			10	2	12.0	13.0	289.1					Dry	---	Dry	---	

001 SUMMARY OF SUBSURFACE MATERIALS G24034.GPJ FALCON_FORMAT.GDT 6/6/24

Bold text denotes the origin strata of termination or refusal.

APPENDIX C

SUMMARY OF SOIL INDEX TESTING..... C-1
ATTERBERG LIMITS RESULTS..... C-2
GRAINSIZE DISTRIBUTION CURVES C-3



FALCON ENGINEERING, INC.
 1210 TRINITY ROAD, SUITE 110
 CARY, NC 27513

PHONE: 919.871.0800
 www.falconengineers.com

SUMMARY OF SOIL INDEX TESTING

Project Number: G24034.00

Project Name: SCWRF Maintenance Building

Project Location: Apex, NC

Sample ID	Boring ID	Depth (ft)	Natural Moisture Content (%)	Percent Passing			Atterberg Limits			Percent Organics	Symbol	
				#10	#40	#200	LL	PL	PI		USCS	AASHTO
SS-01	B-01	6.0 - 7.5	22.2	98	92	69.1	32	28	4	-	ML	A-4
SS-02	B-01	3.5 - 5.0	16.1							-		
SS-03	B-02	1.0 - 2.5	16.7							-		
SS-04	B-02	3.5 - 5.0	18.7							-		
SS-05	B-03	1.0 - 2.5	19.6							-		
SS-06	B-03	3.5 - 5.0	20.7							-		
SS-07	B-04	1.0 - 2.5	9.9							-		
SS-08	B-04	3.5 - 5.0	7.8							-		
SS-09	B-05	3.5 - 5.0	10.4							-		
SS-10	B-05	8.5 - 10.0	14.8							-		

Project Details

Name	4900 West Lake Road	Date	03/20/2024
Location	4900 West Lake Road, Apex, NC 27539	Total modules	215
Module	Hanwha Q.Cells: Q.PEAK DUO XL-G10.3 490 (35mm)	Total watts	105,350
Dimensions	Dimensions: 87.24" x 41.14" x 1.38" (2216.0mm x 1045.0mm x 35.0mm)	Attachments	385
ASCE	7-10	Rails per row	2



System Weight	
Total system weight	13,612.1 lbs
Weight/attachment	35.4 lbs
Racking weight	1,288.3 lbs
Distributed weight	2.5 psf

Load Assumptions	
Wind exposure	C
Wind speed	115 mph
Ground snow load	15 psf
Attachment spacing portrait	4.0'

Roof Information			
Roof Material Family	Metal	Roof material	Standing Seam
Risk category	II	Roof attachment	L-Foot*
		Staggered attachments	Yes
Attachment hardware	Square		

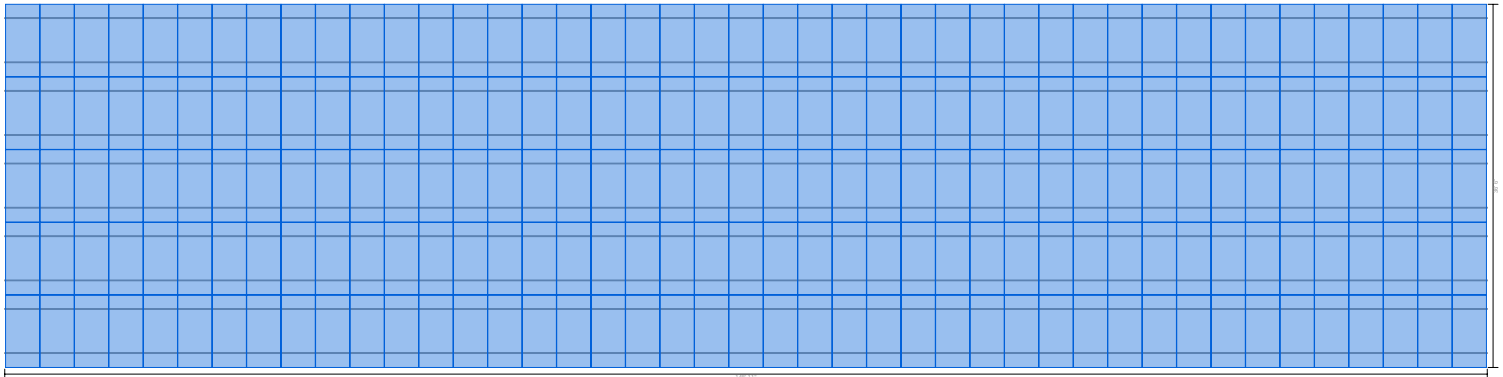
Roof Plane A

Height	15 ft	Slope	22 °	Rafter spacing	24 in
---------------	-------	--------------	------	-----------------------	-------

Roof Plane A: Roof Section 1

Details		Weights
Panels: 215	Provided rail: 1540' [110 x 168"]	Total weight: 13,612.1 lbs
Rail orientation: East-West	Attachments: 385	Weight/attachment: 35.4 lbs
Panel orientation: Portrait	Splices: 110	Total Area: 5,440.2 sq ft
Entry type: Graphical	Clamps: 450	Distributed weight: 2.5 psf

Diagram



Segments

Identifier	Columns	Row length	Rail length	Cantilever	Rail	Attachments	Splices	Clamps
A	43	149' 2"	149' 1"	7"	308' [22 x 168"]	77	22	90
Row segment totals (x 5) →					1540' [110 x 168"]	385	110	450

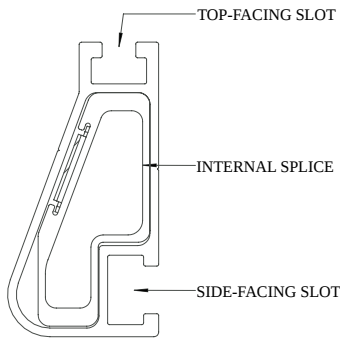
Span Details XR100 - Portrait

Zone	Max span	Max cantilever
1	7' 4"	2' 11"
2	7' 4"	2' 11"
3	6'	2' 5"

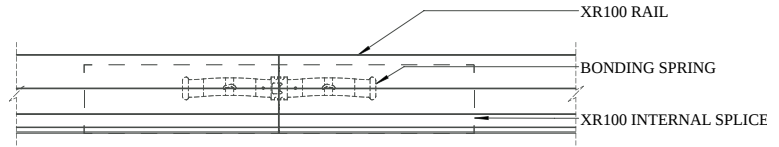
Reaction Forces XR100 - Portrait

Zone	Uplift (PSF)	Down (lbs)	Uplift (lbs)	Lateral Par (lbs)	Lateral Perp (lbs)
1	13.0	252	164	73	4
2	23.7	252	331	73	4
3	36.7	252	522	73	4

Splice Details

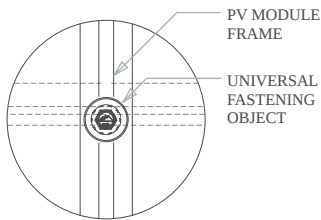


XR100

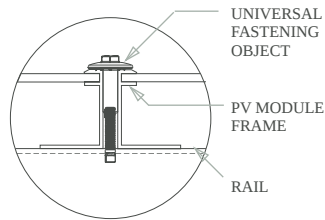


Splice Connection

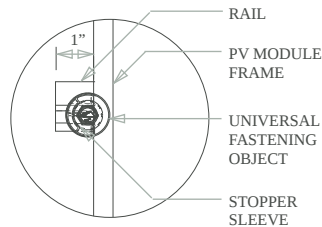
Clamp Detail



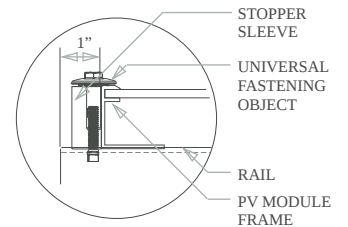
Mid Clamp, Plan



Mid Clamp, Front

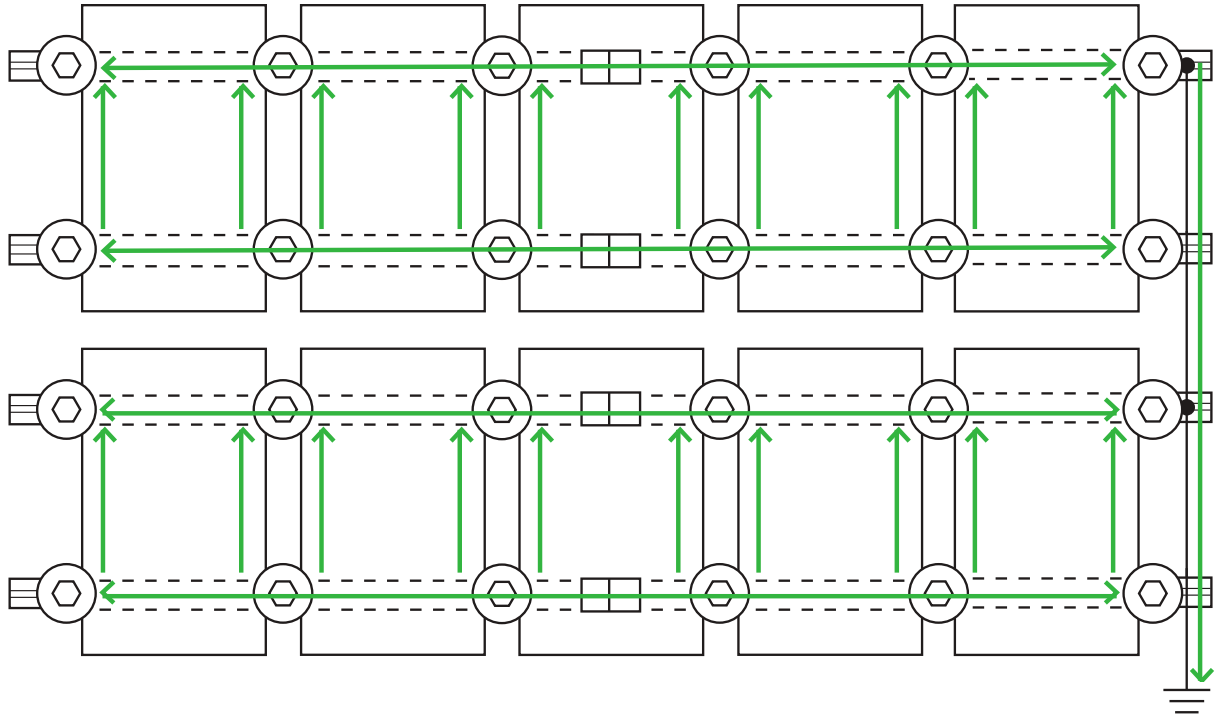


End Clamp, Plan





End Clamp, Front

Grounding Diagram



 UFO Clamp

 Fault Current Ground Path

 Grounding Lug *

 Min 10 AWG Copper Wire *

 Bonded Splice (Rail Connection)

* Grounding Lugs and Wire are not required in systems using Enphase microinverters.

Bill of Materials

Part	Spares	Total Qty
-------------	---------------	------------------

Rails & Splices

XR-100-168A XR100, Rail 168" Clear	0	110
---------------------------------------	---	-----

XR100-BOSS-01-M1 Bonded Splice, XR100	0	110
--	---	-----

Clamps & Grounding

UFO-CL-01-A1 Universal Module Clamp, Clear	0	450
---	---	-----

UFO-STP-35MM-M1 Stopper Sleeve, 35MM, Mill	0	40
---	---	----

XR-LUG-03-A1 Grounding Lug, Low Profile	0	5
--	---	---

Attachments

LFT-03-M1 Slotted L-Foot, Mill	0	385
-----------------------------------	---	-----

BHW-SQ-02-A1 Square-Bolt Bonding Hardware	0	385
--	---	-----

ATTACHMENTS

PRE-INSTALLATION

- Verify module compatibility. See [Page 21](#) for info.

TOOLS REQUIRED

- | | |
|---------------------------------|-----------------------|
| □ Cordless Drill (non-impact) | □ 3/8" Socket |
| □ Impact Driver (for lag bolts) | □ 1/8" Drill Bit |
| □ Torque Wrench (0-250 in-lbs) | □ 1/4" Drill Bit |
| □ 7/16" Socket | □ T30 Bit |
| □ 1/2" Socket | □ Channel Lock Pliers |
| □ 9/16" Socket | □ #3 Phillips Bit |
| □ 7/32" Drill Bit | □ 3/16" Hex Bit |

BONDING HARDWARE TORQUE VALUES

Please refer to each attachment's individual section for full details on all torque values and instructions.

- 3/8" Bonding Hardware Nuts (7/16" Socket): 250 in-lbs
- All Tile Hook Carriage Bolts (7/16" Socket): 132 in-lbs
- Flat Roof Attachment Nuts (9/16" Socket): 250 in-lbs
- Lynx Set Screw (3/16" Hex Drive): 150 in-lbs
- Lynx Flange Nut (1/2" Socket): 150 in-lbs

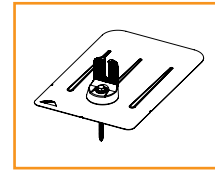
➤ If using previous version of Integrated Grounding Mid Clamps, End Clamps, Expansion Joints and for a list of approved 3rd party components please refer to Alternate Components Addendum (Version 1.9)

ATTACHMENTS

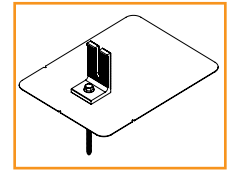
COMPOSITION SHINGLE



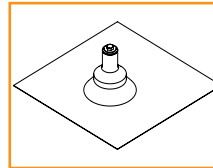
FlashFoot2



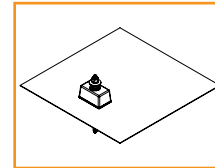
FlashVue



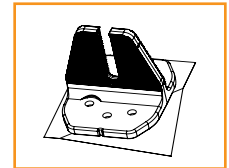
QM L-Mount



QM QBase

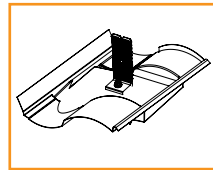


QM Classic Comp Mount

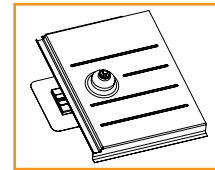


HUG (Halo UltraGrip)

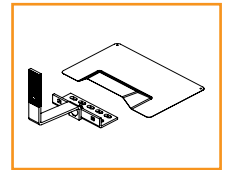
TILE



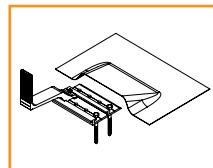
Knockout Tile



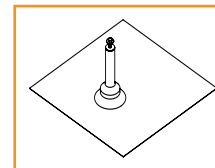
QM Tile Replacement



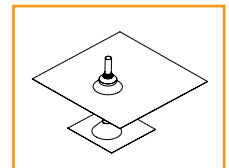
All Tile Hook and Flashing (optional)



QM Quick Hook and Flashing (optional)

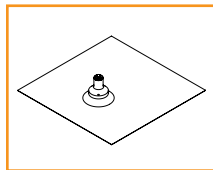


QM QBase Tile

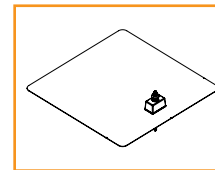


QM Tile Conduit Penetration

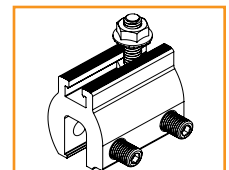
ADDITIONAL ROOF TYPES



QM Qbase Shake - Slate - Metal Shingle

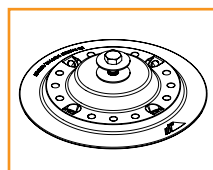


QM Classic Mount Shake

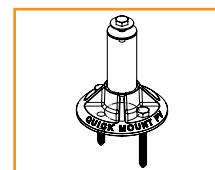


QM Lynx Metal Roof Attachment

LOW SLOPE ROOF



Flat Roof Attachment



QM QBase Mount

COMPONENTS

PRE-INSTALLATION

- Verify module compatibility. See [Page 21](#) for info.

TOOLS REQUIRED

- Cordless Drill (non-impact)
- Impact Driver (for lag bolts)
- Torque Wrench (0-250 in-lbs)
- 7/16" Socket
- 1/2" Socket
- 9/16" Socket
- 7/32" Drill bit
- 1/8" Drill bit
- 1/4" Drill bit
- T30 Torx Bit
- Channel Lock Pliers
- #3 Phillips Bit
- Paddle Bit

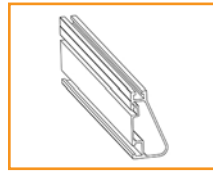
BONDING HARDWARE TORQUE VALUES

Please refer to each attachment's individual section for full details on all torque values and instructions.

- Universal Fastening Object (7/16" Socket): 80 in-lbs
- Rail Grounding Lug Nut (7/16" Socket): 80 in-lbs
- Module Grounding Lug
 - Grounding Nut (7/16" Socket): 60 in-lbs
 - Grounding Lug Terminal Screws (7/16" Socket): 20 in-lbs
- Microinverter Kit Nuts (7/16" Socket): 80 in-lbs
- Frameless Module Kit Nuts (7/16" Socket): 80 in-lbs
- 3/8" Bonding Hardware Nuts (7/16" Socket): 250 in-lbs
- Contour Clamp (T-30 Torx Bit): 80 in-lbs

➤ Unless otherwise noted, all components have been evaluated for multiple use. They can be uninstalled and reinstalled in the same or new location.

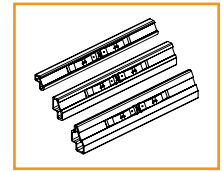
COMPONENTS



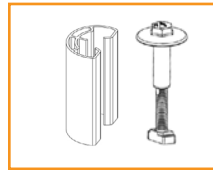
XR Rail



Wire Clip



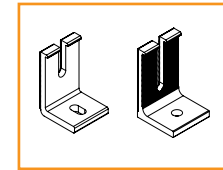
BOSS



UFO and Stopper Sleeve (30-46MM)



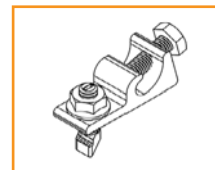
CAMO



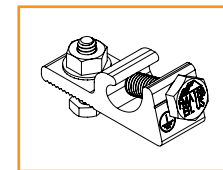
Ironridge L-Foot and QM L-Foot



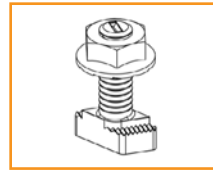
End Cap



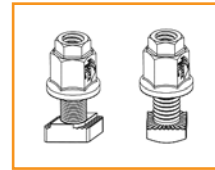
Rail Grounding Lug



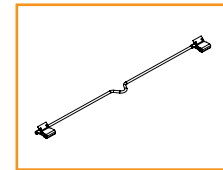
Module Grounding Lug



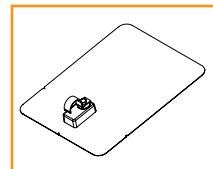
Microinverter Kit



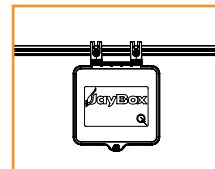
3/8" Bonding Hardware



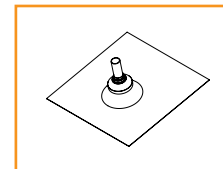
8" Bonding Jumper Single Use Only



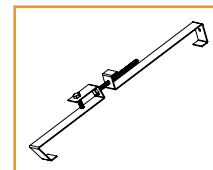
QM Classic Conduit Comp Mount



JAYBOX



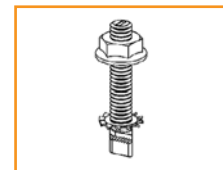
QM Composition Conduit Penetration



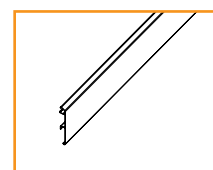
QM Tile Conduit Mount



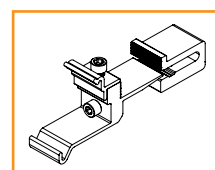
Frameless End/Mid Clamp



Frameless Module Kit



Contour Trim



Contour Clamp

**Rail:
XR100**

Flush Mount System Span Table (inches) - Portrait or Landscape Installation
 Max Module Length: 92.5", Max Module SF: 29.5 SF
 Exposure C

Wind Speed (mph)	Roof Slope (deg.)	Ground Snow: 0 psf			10 psf			20 psf			30 psf			40 psf			50 psf			60 psf			70 psf*			80 psf*			90 psf*			100 psf*			110 psf*			120 psf*		
		Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3			
110 mph	8-20	110	84	68	96	84	68	79	79	68	77	77	68	72	72	68	64	64	64	58	58	58	54	54	54	51	51	51	48	48	48	48	48	48	44	44	44	42	42	42
	28-45	96	96	96	89	89	89	77	77	77	76	76	76	72	72	72	66	66	66	64	64	64	58	58	58	54	54	54	51	51	51	49	49	49	48	48	48	45	45	45
115 mph	8-20	108	81	65	96	81	65	79	79	65	77	77	65	72	72	65	64	64	64	58	58	58	54	54	54	51	51	51	48	48	48	48	48	48	44	44	44	42	42	42
	28-45	96	90	90	87	87	87	76	76	76	75	75	75	72	72	72	65	65	65	64	64	64	58	58	58	54	54	54	51	51	51	49	49	49	48	48	48	45	45	45
120 mph	8-20	104	77	64	96	77	64	79	77	64	77	77	64	72	72	64	64	64	58	58	58	54	54	54	51	51	51	48	48	48	48	48	48	44	44	44	42	42	42	
	28-45	90	87	87	85	85	85	75	75	75	74	74	74	68	68	68	64	64	64	61	61	61	58	58	58	54	54	54	51	51	51	49	49	49	48	48	48	45	45	45
130 mph	8-20	96	72	57	96	72	57	78	72	57	77	72	57	72	72	57	64	64	57	58	58	57	54	54	54	51	51	51	48	48	48	48	48	48	44	44	44	42	42	42
	28-45	85	81	81	82	81	81	72	72	72	72	72	72	67	67	67	64	64	64	59	59	59	57	57	57	54	54	54	51	51	51	49	49	49	48	48	48	45	45	45
140 mph	8-20	89	66	49	89	66	49	77	66	49	76	66	49	72	66	49	64	64	49	58	58	49	54	54	49	51	51	49	48	48	48	48	48	48	44	44	44	42	42	42
	28-45	80	76	76	78	76	76	72	72	72	72	72	65	65	65	64	64	64	58	58	58	55	55	55	53	53	53	51	51	51	49	49	49	48	48	48	45	45	45	
150 mph	8-20	84	64	42	84	64	42	75	64	42	74	64	42	68	64	42	64	64	42	58	58	42	54	54	42	51	51	42	48	48	42	48	48	42	44	44	42	42	42	42
	28-45	76	72	72	75	72	72	68	68	68	67	67	67	64	64	64	60	60	60	57	57	57	54	54	54	52	52	52	50	50	50	48	48	48	48	48	48	45	45	45
160 mph	8-20	78	58	37	78	58	37	73	58	37	72	58	37	67	58	37	64	58	37	58	58	37	54	54	37	51	51	37	48	48	37	48	48	37	44	44	37	42	42	37
	28-45	72	67	67	72	67	67	66	66	66	65	65	65	64	64	64	58	58	58	55	55	55	53	53	53	51	51	51	49	49	49	48	48	48	48	48	48	45	45	45
170 mph	8-20	74	51	32	74	51	32	72	51	32	72	51	32	65	51	32	61	51	32	57	51	32	54	51	32	51	51	32	48	48	32	48	48	32	44	44	32	42	42	32
	28-45	68	64	64	68	64	64	64	64	64	64	64	64	60	60	60	57	57	57	54	54	54	52	52	52	50	50	50	48	48	48	48	48	48	48	48	48	44	44	44
180 mph	8-20	72	45	29	72	45	29	72	45	29	72	45	29	64	45	29	60	45	29	57	45	29	54	45	29	51	45	29	48	45	29	48	45	29	44	44	29	42	42	29
	28-45	65	60	60	65	60	60	64	60	60	61	60	60	58	58	58	55	55	55	53	53	53	51	51	51	49	49	49	48	48	48	48	48	48	45	45	45	43	43	43

 = min 72" span
 = min 64" span
 = min 48" span
 = Shaded cells indicate conditions in which UFO Mid Clamp connection capacity is exceeded. See Note 10 on page 2 for details.



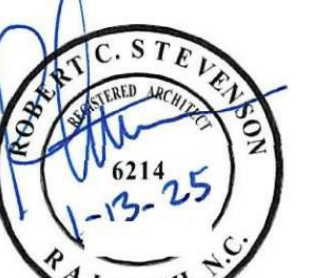
DAVIS KANE ARCHITECTS, P.A.

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PROJECT INFORMATION

South Cary Water Reclamation Facility – Maintenance Facility with Solar
Town of Cary
4900 W Lake Rd, Apex, NC 27539

SEALS



DKA JOB NUMBER

2403

REVISIONS

NO.	DESCRIPTION	DATE
3	Addendum 3	2/8/25

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PA: ROBERT STEVENSON
PM: CV
Drawn By: SMK
Plot Date: 2/5/2025 6:02:08 PM

DATE ISSUED

Bid Documents
1/13/2025

SHEET TITLE

DETAILS

A311

G7 WALL FLASHING AT DOOR AWNING
1 1/2" = 1'-0"

E7 LOUVER HEAD DETAIL
3" = 1'-0"

C7 LOUVER SILL DETAIL
3" = 1'-0"

A7 DOOR HEAD
3" = 1'-0"

F5 STOREFRONT HEAD AT CMU
3" = 1'-0"

C5 STOREFRONT JAMB AT CMU
3" = 1'-0"

A5 STOREFRONT SILL AT CMU
3" = 1'-0"

F2 EXTERIOR WALL FOUNDATION
3" = 1'-0"

D2 PLAN OF LADDER
1 1/2" = 1'-0"

D4 LADDER ELEVATION
3/8" = 1'-0"

F1 TYP INTERIOR STAIR PIPE CENTER HANDRAIL SECTION
1" = 1'-0"

D1 TYP STOREFRONT SEALANT DETAIL
6" = 1'-0"

A1 DOOR CANOPY
1 1/2" = 1'-0"

