

**Please review:**

Bid Form

page 1 – Is there a **City Bid No.?**

page 7 - Article 7 – Attachments to this Bid: documents 7.01 D to F – **are these forms to be provided by the City?**

012300 Alternates, Schedule of Alternates

Alternate No. G1: Swing Door Operator (COR preferred brand alternate) - AutoEntry Control door operator by Security Door Controls (SDC) with push plates

Alternate No. G2: Single ADA Water Cooler (Drinking Fountain) with Bottle Filling Station (COR preferred brand alternate) - EZH2O bottle filling station with single ADA water cooler, non-filtered 8 GPH stainless by Elkay

Alternate No. G3: Sensor Operated Faucet (COR preferred brand alternate) - Z6950-XL Aqua-Fit faucet by Zurn

Alternate No. G4: Sensor Operated Retrofit Kit for Water Closet and Urinal Flush Valve - COR preferred brand alternate Zurn Zerk CPM is battery powered / hardwired Sloan EL-700A retrofit kit shown in the documents.  
Please confirm substitution or advise.

Alternate No. G5: Concealed Sensor Operated Water Closet Flush Valve – COR preferred brand alternate Zurn Zerk CPM is battery powered and can't accommodate the existing conditions at RMB (concealed, wall mounted sensor) / hardwire concealed Sloan Royal 150 ESS-3.5 water closet flush valve is shown in the documents.  
Please confirm substitution or advise.

Alternate No. G6: Automated Feminine Hygiene Dispenser - EVNT3-SS no-touch menstrual care dual vendor, stainless steel by Evogen.  
Battery operated due to lack of availability of hardwired sensor operated dispensers. Please confirm acceptability.

Alternate No. G7: Combination Automated Towel Dispenser / Waste Receptacle - combination enMotion 59466 recessed automated towel dispenser, stainless steel / 59491 trash receptacle, stainless steel by Georgia-Pacific  
This is the model installed at RMB and it's battery operated. Please confirm acceptability.

Alternate No. G8: Automated Soap Dispenser - enMotion automated soap and sanitizer dispenser, stainless steel by Georgia-Pacific.  
Battery operated due to lack of availability of hardwired sensor operated dispensers. Please confirm acceptability.

# PROJECT MANUAL for



Raleigh

Engineering Services Department

## ADA Improvements Raleigh, North Carolina

- One Exchange Plaza (OEP)  
1 Exchange Plaza, Raleigh NC 27601
- Raleigh Municipal Building (RMB)  
222 W. Hargett Street, Raleigh NC 27601
- Raleigh Pathways Center (RPC)  
900 S. Wilmington Street, Raleigh NC 27601

**100% CDs for review  
01/29/2021**

DKA Project Numbers: 2019 (OEP), 2020 (RMB), 2022 (RPC)

**Davis Kane**

ARCHITECTS, P.A.

503-300 Oberlin Road  
Raleigh, North Carolina 27605

Phone (919) 833-3737  
Fax (919) 755-1771





**Raleigh**

**Engineering Services Department**

## **ADA Improvements**

**Raleigh, North Carolina**

- One Exchange Plaza  
1 Exchange Plaza, Raleigh NC 27601
- Raleigh Municipal Building  
222 W. Hargett Street, Raleigh NC 27601
- Raleigh Pathways Center  
900 S. Wilmington Street, Raleigh NC 27601

100% CDs for review

01/29/2021

Design consultants affix signed seals below

OWNER

**CITY OF RALEIGH**  
Engineering Services Department  
Raleigh, North Carolina

ARCHITECT

**DAVIS KANE ARCHITECTS, PA**  
Raleigh, North Carolina

P.M.E. ENGINEER

**ATLANTEC ENGINEERS, PA**  
Raleigh, North Carolina



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Engineering Services Department**

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Raleigh, North Carolina**

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1 Exchange Plaza, Raleigh NC 27601
- Raleigh Municipal Building  
222 W. Hargett Street, Raleigh NC 27601
- Raleigh Pathways Center  
900 S. Wilmington Street, Raleigh NC 27601

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ADA Improvements  
Raleigh, North Carolina

## INVITATION TO BID

The City of Raleigh Engineering Services Department requests proposals for ADA Improvements at multiple City of Raleigh facilities (One Exchange Plaza, Raleigh Municipal Building, Raleigh Pathways Center).

The scope of work associated with the project includes accessible upgrades to existing toilet room facilities, drinking fountains, door closers and installation of new main entry automatic door openers at the Raleigh Pathways Center. The approximate total project square footage is 3,000. It is the intent of the City of Raleigh to award this project as a single prime project.

A Mandatory Pre-bid Conference will be held on February 25, 2021, at 10:00 a.m. at One Exchange Plaza, Raleigh, North Carolina 27601, in Conference Room 809.

Site visits will be in order as listed below:

One Exchange Plaza, 1 Exchange Plaza, Raleigh NC 27601

Raleigh Municipal Building, 222 W. Hargett Street, Raleigh NC 27601

Raleigh Pathways Center, 900 S. Wilmington Street, Raleigh NC 27601

Sealed proposals are due and shall be hand delivered to the Owner, City of Raleigh, at One Exchange Plaza, Raleigh North Carolina 27601, in Conference Room 809 no later than 2:00 p.m. on March 11, 2021. A bid opening will occur at 2:15 p.m. in Conference Room 809 at One Exchange Plaza, Raleigh North Carolina 27601.

Note that all bidders must wear a face covering (mask) and agree to a temperature check before being allowed to participate in the Pre-Bid and Bid Opening.

Bids may also be mailed to the Owner:

City of Raleigh

Engineering Services Department

Integrated Facility Services Division

Attn: Echo Swanzey

222 West Hargett Street, Room 605

Raleigh, North Carolina 27601

Complete set of construction drawings and project manual may be viewed via the North Carolina State Interactive Purchasing System (IPS) website. Electronic copies of the documents may be obtained by email from the Owner's representative: Echo Swanzey, [echo.swanzey@raleighnc.gov](mailto:echo.swanzey@raleighnc.gov) or from the architect of record: Sebastian Duca, AIA, [sduca@daviskane.com](mailto:sduca@daviskane.com).

On behalf of the City of Raleigh and the Engineering Services Department, thank you in advance for your interest and participation.

City of Raleigh

Engineering Services Department

Integrated Facility Services Division

Attn: Echo Swanzey

E-mail: [echo.swanzey@raleighnc.gov](mailto:echo.swanzey@raleighnc.gov)

END OF DOCUMENT

INVITATION TO BID



ADA Improvements  
Raleigh, North Carolina

## NOTICE TO BIDDERS

Sealed proposals are due and shall be hand delivered to the Owner, City of Raleigh, at One Exchange Plaza, Raleigh North Carolina 27601, in Conference Room 809 no later than 2:00 p.m. on March 11, 2021. A bid opening will occur at 2:15 p.m. in Conference Room 809 at One Exchange Plaza, Raleigh North Carolina 27601.

The scope of work associated with the project includes accessible upgrades at multiple City of Raleigh facilities: One Exchange Plaza, Raleigh Municipal Building, and Raleigh Pathways Center. The work includes upgrades to existing toilet room facilities, drinking fountains, door closers and installation of new main entry automatic door openers at the Raleigh Pathways Center. The approximate total project square footage is 3,000. It is the intent of the City of Raleigh to award this project as a single prime project.

Main Entry Doors: Raleigh Pathways Center ONLY.  
New ADA compliant, automatic door opener, push buttons.

Interior Door Closers: select locations in all 3 facilities.  
Existing interior door closers shall be adjusted to be ADA compliant.

Drinking Fountains: select locations in all 3 facilities.  
Existing, non-compliant, drinking fountains shall be removed and replaced with ADA compliant drinking fountains. This work may require the removal or cutting of existing CMU and/or drywall.

Toilet Rooms: select locations in all 3 facilities.  
Existing, non-compliant, manual sink faucets shall be removed and replaced with new, ADA compliant automatic sink faucets. Existing, non-compliant, manual flush valves shall be removed and replaced with new, ADA compliant automatic flush valves. Existing, non-compliant toilet seats shall receive new spacers to ensure heights are within ADA complaint ranges. Existing, non-compliant grab bars shall be removed and replaced with new, ADA compliant grab bars within ADA complaint height ranges. Existing, non-compliant, mirrors shall be removed and replaced with new mirrors within ADA complaint height ranges. New ADA compliant door hooks shall be provided installed at ADA compliant height. Existing, non-compliant, feminine product, paper towel and soap dispensers shall be removed and replaced with new, ADA complaint automatic dispensers.

Solid surface counter: One Exchange Plaza ONLY.  
Existing, non-compliant, counter and sinks shall be removed and replaced with new, ADA compliant solid surface counter and new sinks at ADA compliant height.

Patch and paint all areas within scope of project. All deliverables shall be turn-key.

Bidders will be notified of award and, due to the current pandemic, are encouraged to drop bids off. Complete set of construction drawings and project manual may be viewed via the North Carolina State Interactive Purchasing System (IPS) website. Electronic copies of the documents may be obtained by email from the Owner's representative: Echo Swanzey, [echo.swanzey@raleighnc.gov](mailto:echo.swanzey@raleighnc.gov) or from the architect of record: Sebastian Duca, AIA, [sduca@daviskane.com](mailto:sduca@daviskane.com). Building plans will be provided to the successful Bidder.

Note that all bidders must wear a face covering (mask) and agree to a temperature checks before being allowed to participate in the Bid Opening.

Bids may also be mailed to the Owner:

City of Raleigh  
Engineering Services Department  
Facilities and Operations Division  
Attn: Echo Swanzey  
222 West Hargett Street, Room 605  
Raleigh, North Carolina 27601

A single lump sum bid will be taken to include all construction.

All Contractors are hereby notified that they must have the proper license under the State Laws governing their respective trades. (General Statutes of North Carolina Chapter 87.)

Minority owned businesses and women-owned businesses (MWBE) are encouraged to submit bids for this construction project. The City of Raleigh awards public contracts without regard to race, religion, color, creed, national origin, sex, age or handicapping condition as defined by North Carolina General Statutes, Section 168A-3.

All MWBE contacts must be approved by the City for credit to apply. Bidders can confirm approved MWBE participants under Vendor Directories on the City's web page <https://www.raleighnc.gov/business/content/HousingNeighborhoods/Articles/BusinessAssistanceProgram.html> prior to listing them for credit.

A Mandatory Pre-Bid Conference will be held on February 25, 2021, at 10:00 a.m. at One Exchange Plaza, Raleigh, North Carolina 27601, in Conference Room 809.

Site visits will be in order as listed below:

One Exchange Plaza, 1 Exchange Plaza, Raleigh NC 27601  
Raleigh Municipal Building, 222 W. Hargett Street, Raleigh NC 27601  
Raleigh Pathways Center, 900 S. Wilmington Street, Raleigh NC 27601

Note that all bidders must wear a face covering (mask) and agree to temperature checks before being allowed to participate in the Pre-Bid Conference.

END OF DOCUMENT

NOTICE TO BIDDERS



# AIA<sup>®</sup> Document A701<sup>™</sup> – 2018

## Instructions to Bidders

for the following Project:

*(Name, location, and detailed description)*

**ADA Improvements  
Raleigh, North Carolina**

- One Exchange Plaza  
1 Exchange Plaza, Raleigh NC 27601
- Raleigh Municipal Building  
222 W. Hargett Street, Raleigh NC 27601
- Raleigh Pathways Center  
900 S. Wilmington Street, Raleigh NC 27601

**THE OWNER:**

*(Name, legal status, address, and other information)*

**City of Raleigh  
Engineering Services Department  
222 West Hargett Street, Room 605  
Raleigh, NC 27601**

**THE ARCHITECT:**

*(Name, legal status, address, and other information)*

**Davis Kane Architects P.A.  
503 Oberlin Road, Suite 300  
Raleigh, NC 27605**

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2	<b>BIDDER'S REPRESENTATIONS</b>
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5	<b>CONSIDERATION OF BIDS</b>
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7	<b>PERFORMANCE BOND AND PAYMENT BOND</b>
8	<b>ENUMERATION OF THE PROPOSED CONTRACT DOCUMENTS</b>

**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.

FEDERAL, STATE, AND LOCAL LAWS MAY IMPOSE REQUIREMENTS ON PUBLIC PROCUREMENT CONTRACTS. CONSULT LOCAL AUTHORITIES OR AN ATTORNEY TO VERIFY REQUIREMENTS APPLICABLE TO THIS PROCUREMENT BEFORE COMPLETING THIS FORM.

It is intended that AIA Document G612<sup>™</sup>-2017, Owner's Instructions to the Architect, Parts A and B will be completed prior to using this document.

## ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the Proposed Contract Documents. The Bidding Requirements consist of the advertisement or invitation to bid, Instructions to Bidders, supplementary instructions to bidders, the bid form, and any other bidding forms. The Proposed Contract Documents consist of the unexecuted form of Agreement between the Owner and Contractor and that Agreement's Exhibits, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, all Addenda, and all other documents enumerated in Article 8 of these Instructions.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, or in other Proposed Contract Documents apply to the Bidding Documents.

§ 1.3 Addenda are written or graphic instruments issued by the Architect, which, by additions, deletions, clarifications, or corrections, modify or interpret the Bidding Documents.

§ 1.4 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

§ 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents, to which Work may be added or deleted by sums stated in Alternate Bids.

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from, or that does not change, the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

§ 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, as described in the Bidding Documents.

§ 1.8 A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

§ 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment, or labor for a portion of the Work.

## ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 By submitting a Bid, the Bidder represents that:

- .1 the Bidder has read and understands the Bidding Documents;
- .2 the Bidder understands how the Bidding Documents relate to other portions of the Project, if any, being bid concurrently or presently under construction;
- .3 the Bid complies with the Bidding Documents;
- .4 the Bidder has visited the site, become familiar with local conditions under which the Work is to be performed, and has correlated the Bidder's observations with the requirements of the Proposed Contract Documents;
- .5 the Bid is based upon the materials, equipment, and systems required by the Bidding Documents without exception; and
- .6 the Bidder has read and understands the provisions for liquidated damages, if any, set forth in the form of Agreement between the Owner and Contractor.

## ARTICLE 3 BIDDING DOCUMENTS

### § 3.1 Distribution

§ 3.1.1 Bidders shall obtain complete Bidding Documents, as indicated below, from the issuing office designated in the advertisement or invitation to bid, for the deposit sum, if any, stated therein.

*(Indicate how, such as by email, website, host site/platform, paper copy, or other method Bidders shall obtain Bidding Documents.)*

Refer to Notice to Bidders for additional information.

§ 3.1.2 Any required deposit shall be refunded to Bidders who submit a bona fide Bid and return the paper Bidding Documents in good condition within ten days after receipt of Bids. The cost to replace missing or damaged paper documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the paper Bidding Documents, and the Bidder's deposit will be refunded.

§ 3.1.3 Bidding Documents will not be issued directly to Sub-bidders unless specifically offered in the advertisement or invitation to bid, or in supplementary instructions to bidders.

§ 3.1.4 Bidders shall use complete Bidding Documents in preparing Bids. Neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete Bidding Documents.

§ 3.1.5 The Bidding Documents will be available for the sole purpose of obtaining Bids on the Work. No license or grant of use is conferred by distribution of the Bidding Documents.

### § 3.2 Modification or Interpretation of Bidding Documents

§ 3.2.1 The Bidder shall carefully study the Bidding Documents, shall examine the site and local conditions, and shall notify the Architect of errors, inconsistencies, or ambiguities discovered and request clarification or interpretation pursuant to Section 3.2.2.

§ 3.2.2 Requests for clarification or interpretation of the Bidding Documents shall be submitted by the Bidder in writing and shall be received by the Architect at least seven days prior to the date for receipt of Bids.

§ 3.2.3 Modifications and interpretations of the Bidding Documents shall be made by Addendum. Modifications and interpretations of the Bidding Documents made in any other manner shall not be binding, and Bidders shall not rely upon them.

### § 3.3 Substitutions

§ 3.3.1 The materials, products, and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution.

#### § 3.3.2 Substitution Process

§ 3.3.2.1 Written requests for substitutions shall be received by the Architect at least ten days prior to the date for receipt of Bids. Requests shall be submitted in the same manner as that established for submitting clarifications and interpretations in Section 3.2.2.

§ 3.3.2.2 Bidders shall submit substitution requests on a Substitution Request Form if one is provided in the Bidding Documents.

§ 3.3.2.3 If a Substitution Request Form is not provided, requests shall include (1) the name of the material or equipment specified in the Bidding Documents; (2) the reason for the requested substitution; (3) a complete description of the proposed substitution including the name of the material or equipment proposed as the substitute, performance and test data, and relevant drawings; and (4) any other information necessary for an evaluation. The request shall include a statement setting forth changes in other materials, equipment, or other portions of the Work, including changes in the work of other contracts or the impact on any Project Certifications (such as LEED), that will result from incorporation of the proposed substitution.

§ 3.3.3 The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

§ 3.3.4 If the Architect approves a proposed substitution prior to receipt of Bids, such approval shall be set forth in an Addendum. Approvals made in any other manner shall not be binding, and Bidders shall not rely upon them.

§ 3.3.5 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.



### § 3.4 Addenda

§ 3.4.1 Addenda will be transmitted to Bidders known by the issuing office to have received complete Bidding Documents.

§ 3.4.2 Addenda will be available where Bidding Documents are on file.

§ 3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids, except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

§ 3.4.4 Prior to submitting a Bid, each Bidder shall ascertain that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

## ARTICLE 4 BIDDING PROCEDURES

### § 4.1 Preparation of Bids

§ 4.1.1 Bids shall be submitted on the forms included with or identified in the Bidding Documents.

§ 4.1.2 All blanks on the bid form shall be legibly executed. Paper bid forms shall be executed in a non-erasable medium.

§ 4.1.3 Sums shall be expressed in both words and numbers, unless noted otherwise on the bid form. In case of discrepancy, the amount entered in words shall govern.

§ 4.1.4 Edits to entries made on paper bid forms must be initialed by the signer of the Bid.

§ 4.1.5 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change" or as required by the bid form.

§ 4.1.6 Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall neither make additional stipulations on the bid form nor qualify the Bid in any other manner.

§ 4.1.7 Each copy of the Bid shall state the legal name and legal status of the Bidder. As part of the documentation submitted with the Bid, the Bidder shall provide evidence of its legal authority to perform the Work in the jurisdiction where the Project is located. Each copy of the Bid shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further name the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached, certifying the agent's authority to bind the Bidder.

§ 4.1.8 A Bidder shall incur all costs associated with the preparation of its Bid.

### § 4.2 Bid Security

§ 4.2.1 Each Bid shall be accompanied by the following bid security:

*(Paragraph deleted)*  
5% of the Bid price

§ 4.2.2 The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and shall, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. In the event the Owner fails to comply with Section 6.2, the amount of the bid security shall not be forfeited to the Owner.

§ 4.2.3 If a surety bond is required as bid security, it shall be written on AIA Document A310™, Bid Bond, unless otherwise provided in the Bidding Documents. The attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of an acceptable power of attorney. The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 4.2.4 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until (a) the Contract has been executed and bonds, if required, have been furnished; (b) the specified time has elapsed so that Bids may be withdrawn; or (c) all Bids have been rejected. However, if no Contract has been awarded or a Bidder has not been notified of the acceptance of its Bid, a Bidder may, beginning days after the opening of Bids, withdraw its Bid and request the return of its bid security.

### § 4.3 Submission of Bids

§ 4.3.1 A Bidder shall submit its Bid as indicated below:

Refer to Notice to Bidders.

§ 4.3.2 Paper copies of the Bid, the bid security, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address, and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

§ 4.3.3 Bids shall be submitted by the date and time and at the place indicated in the invitation to bid. Bids submitted after the date and time for receipt of Bids, or at an incorrect place, will not be accepted.

§ 4.3.4 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

§ 4.3.5 A Bid submitted by any method other than as provided in this Section 4.3 will not be accepted.

### § 4.4 Modification or Withdrawal of Bid

§ 4.4.1 Prior to the date and time designated for receipt of Bids, a Bidder may submit a new Bid to replace a Bid previously submitted, or withdraw its Bid entirely, by notice to the party designated to receive the Bids. Such notice shall be received and duly recorded by the receiving party on or before the date and time set for receipt of Bids. The receiving party shall verify that replaced or withdrawn Bids are removed from the other submitted Bids and not considered. Notice of submission of a replacement Bid or withdrawal of a Bid shall be worded so as not to reveal the amount of the original Bid.

§ 4.4.2 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids in the same format as that established in Section 4.3, provided they fully conform with these Instructions to Bidders. Bid security shall be in an amount sufficient for the Bid as resubmitted.

§ 4.4.3 After the date and time designated for receipt of Bids, a Bidder who discovers that it made a clerical error in its Bid shall notify the Architect of such error within two days, or pursuant to a timeframe specified by the law of the jurisdiction where the Project is located, requesting withdrawal of its Bid. Upon providing evidence of such error to the reasonable satisfaction of the Architect, the Bid shall be withdrawn and not resubmitted.

*(Paragraphs deleted)*

## ARTICLE 5 CONSIDERATION OF BIDS

### § 5.1 Opening of Bids

If stipulated in an advertisement or invitation to bid, or when otherwise required by law, Bids properly identified and received within the specified time limits will be publicly opened and read aloud. A summary of the Bids may be made available to Bidders.

### § 5.2 Rejection of Bids

Unless otherwise prohibited by law, the Owner shall have the right to reject any or all Bids.

### § 5.3 Acceptance of Bid (Award)

§ 5.3.1 It is the intent of the Owner to award a Contract to the lowest responsive and responsible Bidder, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents. Unless otherwise prohibited by law, the Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's best interests.

§ 5.3.2 Unless otherwise prohibited by law, the Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the lowest responsive and responsible Bidder on the basis of the sum of the Base Bid and Alternates accepted.

## **ARTICLE 6 POST-BID INFORMATION**

### **§ 6.1 Contractor's Qualification Statement**

Bidders to whom award of a Contract is under consideration shall submit to the Architect, upon request and within the timeframe specified by the Architect, a properly executed AIA Document A305™, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted for this Bid.

### **§ 6.2 Owner's Financial Capability**

A Bidder to whom award of a Contract is under consideration may request in writing, fourteen days prior to the expiration of the time for withdrawal of Bids, that the Owner furnish to the Bidder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. The Owner shall then furnish such reasonable evidence to the Bidder no later than seven days prior to the expiration of the time for withdrawal of Bids. Unless such reasonable evidence is furnished within the allotted time, the Bidder will not be required to execute the Agreement between the Owner and Contractor.

### **§ 6.3 Submittals**

§ 6.3.1 After notification of selection for the award of the Contract, the Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, submit in writing to the Owner through the Architect:

- .1 a designation of the Work to be performed with the Bidder's own forces;
- .2 names of the principal products and systems proposed for the Work and the manufacturers and suppliers of each; and
- .3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

§ 6.3.2 The Bidder will be required to establish to the satisfaction of the Architect and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

§ 6.3.3 Prior to the execution of the Contract, the Architect will notify the Bidder if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, withdraw the Bid or submit an acceptable substitute person or entity. The Bidder may also submit any required adjustment in the Base Bid or Alternate Bid to account for the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

§ 6.3.4 Persons and entities proposed by the Bidder and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

## **ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND**

### **§ 7.1 Bond Requirements**

§ 7.1.1 If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder.

§ 7.1.2 If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid. If the furnishing of such bonds is required after receipt of bids and before execution of the Contract, the cost of such bonds shall be added to the Bid in determining the Contract Sum.

§ 7.1.3 The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 7.1.4 Unless otherwise indicated below, the Penal Sum of the Payment and Performance Bonds shall be the amount of the Contract Sum.

*(If Payment or Performance Bonds are to be in an amount other than 100% of the Contract Sum, indicate the dollar amount or percentage of the Contract Sum.)*

The Contractor shall furnish a Contract Performance Bond and a Payment Bond, each equal to one hundred percent (100%) of the Contract Price if the base bid price exceeds \$300,000. However, the City may impose this requirement on any contract in excess of \$30,000. Bonds given shall meet the requirements of the law of the State of North Carolina including but not limited to G.S. 143-129 and G.S. 44A-26. The surety on each Bond shall be a surety company satisfactory to the City and duly authorized to do business in the State of North Carolina.

**§ 7.2 Time of Delivery and Form of Bonds**

**§ 7.2.1** The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract. If the Work is to commence sooner in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished and delivered in accordance with this Section 7.2.1.

**§ 7.2.2** Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond.

**§ 7.2.3** The bonds shall be dated on or after the date of the Contract.

**§ 7.2.4** The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix to the bond a certified and current copy of the power of attorney.

**ARTICLE 8 ENUMERATION OF THE PROPOSED CONTRACT DOCUMENTS**

**§ 8.1** Copies of the proposed Contract Documents have been made available to the Bidder and consist of the following documents:

*(Paragraphs deleted)*

**City of Raleigh - Contract for Construction / Repair (sample)**



## SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

### GENERAL

The following supplements modify, change, delete from or add to AIA Document A701, "Instructions to Bidders." Where any article of the Instructions to Bidders is modified or any paragraph, subparagraph or clause thereof is modified or deleted by these Supplementary Instructions to Bidders, the unaltered provisions of the Instructions to Bidders shall remain in effect.

### ARTICLE 3 – BIDDING DOCUMENTS

#### 3.4 ADDENDA

Add Subparagraph 3.4.4.1, to read as follows:

3.4.4.1 It is the responsibility of each prime bidder to verify for their self that he/she has received all addenda; and that materials suppliers are familiar with and include in their prices all Addenda issued up to the time of the Bid Opening. Bidders shall state the number of Addenda received in the appropriate space on the bid form.

### ARTICLE 6 – POST-BID INFORMATION

#### 6.2 OWNER'S FINANCIAL CAPABILITY

Delete Paragraph 6.2 in its entirety

END OF DOCUMENT



## CITY OF RALEIGH - GENERAL CONDITIONS

### INDEX TO GENERAL CONDITIONS

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## 1. DEFINITIONS OF TERMS

Wherever used in the Contract Documents, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:

"Addenda" shall mean written or graphic instruments issued prior to the execution of the agreement, which modify or interpret the Contract Documents by additions, deletions, clarifications, or corrections.

"Architectural Supplemental Instructions" shall mean the information that allows an architect to provide additional instructions or make minor changes without having to reWork the entire construction plan.

"Authorization Request" shall mean the final action in approving a cost event. It may result in a change in the project's contingency, which is included in the contract amount.

"Bad Weather Day" shall mean a day when construction Work cannot be performed and is attributable to unusual weather phenomena as defined herein.

"Bid" shall mean the offer or Proposal of the Bidder submitted on the prescribed form setting forth the price(s) for the Work to be performed.

"Bidder" shall mean any person, firm, or corporation submitting a Bid for the Work.

"Bonds" shall mean Bid, Performance, and Payment Bonds and other instruments of security, furnished by the Contractor and his surety in accordance with the Contract Documents.

"Change Order" shall mean the adjustment of the contract of time, or addition or deduction to the overall contract price. A Change Order shall be an amendment to the contract and requires approval by the City of Raleigh through the City Council or City Manager.

"Consultant" shall be defined as the professional services firm employed by the City or Owner.

"Contract Documents" shall consist of Advertisement for Bids, Proposal, Bid Bond, Contract, Contract Performance Bond, Payment Bond, Instructions to Bidders, General Requirements, General Conditions, Supplementary Conditions, Technical Specifications, Certificates of Insurance, and Drawings and any other pertinent documents. The intent of these documents is to include all materials, appliances, tools, labor, and services of every kind necessary for the proper execution of the Work, and the terms and conditions of payment therefore. The Contract Documents shall be considered as one, and whatever is called for by any one of them shall be as binding as if called for by all.

"Contract Price" shall mean the total monies payable to the Contractor under the terms and conditions of the Contract Documents.

"Contract Time" shall mean the number of calendar days stated in the Contract Documents for the completion of the Work.

"Contractor" or "General Contractor" shall mean the individual, firm, or corporation undertaking the execution of the Work as an independent Contractor under the terms of the Contract and acting through his or its agents or employees.

"Cost Event" shall mean a directive to perform work resulting from a proposed change. There may or may not be costs associated with the work. It is initiated as a proposal from the Contractor and sent to the Designer for review. If approved by the Designer, the Designer forwards it to the Owner as a recommendation from the Designer in the form of an Authorization Request.

"City" shall mean City of Raleigh.

"Designer" shall mean the professional architectural and/engineering firm and/or its subconsultants that are responsible for the project design and have placed their professional seals on the construction documents.

"Drawings" shall mean the part of the Contract Documents, which show largely through graphical presentation the characteristics, design and scope of the Work to be performed and which have been prepared or approved by the City.

"Final Acceptance" shall be defined as concurrence between the Designer and the Owner to accept the project from the contractor. Final acceptance of the project shall not be considered before the final inspection is conducted. Final acceptance does not infer the lack of claims on a project.

"Liquidated Damages" shall mean the amount reasonably estimated in advance to cover the consequential damages associated with the City's economic loss in not having the use of the project for its intended purposes resulting from the Contractor's failure to complete the project by the completion date.

"Notice of Award" shall mean the written notice to the successful bidder of the acceptance of the bid as approved by the City Council or City Manager. Notice may be issued in person or via regular mail, certified mail with receipt of delivery, or email with receipt of delivery.

"Notice to Proceed" shall mean written communication issued by the City or its Designer to the Contractor authorizing him to proceed with the Work and establishing the date of commencement of the Work. Notice may be issued in person or via regular mail, certified mail with receipt of delivery, or email with receipt of delivery.

"Owner" shall mean City of Raleigh.

"Owner's Contingency" shall mean the amount of funds included in the contract that represents the Owner's best estimate of funds to provide for unforeseen circumstances or conditions that may arise during the construction of the project.

"Project" shall mean the undertaking to be performed as provided in the Contract Documents.

"Project Manager" shall be the individual or individuals assigned to coordinate the project and insure that City procedures are followed and the quality of Work is up to the standards expected.

"Shall" is mandatory; "may" is permissive.

"Shop Drawings" shall mean all drawings, diagrams, illustrations, brochures, schedules, and other data, which are prepared by the Contractor, Subcontractor, manufacturer, Supplier, or distributor, which illustrate how specific portions of the Work shall be fabricated or installed.

"Specifications" shall mean a part of the Contract Documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards, and Workmanship specified for this Project.

"Subcontractor" shall mean an individual, firm, or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work at the site.

"Substantial Completion" shall mean that date determined by the City when the construction of the Project or an expressly stipulated part thereof is sufficiently completed, in accordance with the Contract Documents, so the Project or stipulated part can be fully utilized for the purposes for which it is intended.

"Supplemental General Conditions" shall mean a part of the Contract Documents consisting of modifications or additions to the General Conditions.

"Superintendent" shall mean the Contractor's authorized on job representative designated in writing by the Contractor prior to commencement of any Work

"Supplier" shall mean any person, supplier, or organization who furnishes materials or equipment for the Work, including that fabricated to a special design, but who does not perform labor at the site.

"Surety" shall mean the bonding or insurance company that represents the Contractor and that assumes responsibility for the completion of the project should the Contractor, for any reason, become unable to complete the project.

"Time Extension" shall mean an increase in the length of time specified in a contract resulting in a revised contract completion date.

"Work" of the Contractor or Subcontractor shall include all labor, material, equipment, transportation, skill, tools, machinery, and other equipment and things useful or necessary in order to complete the Contract.

"Written Notice" shall mean the notification either in handwritten, computer generated, typed, or email form that communicates information or directives.

## 2. APPLICABLE REQUIREMENTS

The Work shall comply with the Contract Documents and with all applicable codes, laws, and regulations of the City, State, or Federal agencies. In the event of any conflict between the terms of this Contract and such codes, laws, and regulations, the codes, laws, and regulations shall prevail. If the Contractor performs any Work contrary to such codes, laws, or regulations he shall assume full responsibility therefore and shall bear any and all costs necessary to correct the Work.

## 3. CONTRACT SECURITY

The Contractor shall furnish a Contract Performance Bond and a Payment Bond, each equal to one hundred percent (100%) of the Contract Price if the base bid price exceeds \$300,000. However, the

City may impose this requirement on any contract in excess of \$30,000. Bonds given shall meet the requirements of the law of the State of North Carolina including but not limited to G.S. 143-129 and G.S. 44A-26. The surety on each Bond shall be a surety company satisfactory to the City and duly authorized to do business in the State of North Carolina.

#### 4. NOTICE AND SERVICE THEREOF

Any notice to Contractor from the City relative to any part of this Contract shall be in accordance with the City's Form of Contract.

#### 5. INTENT OF DRAWINGS AND SPECIFICATIONS

The intent of the Drawings, Specifications/project manual and all other documents comprising the Contract Documents, is that the Contractor shall be held responsible to provide and pay for all labor, materials, tools, power, water, equipment, transportation, and other facilities necessary for the proper execution of the Work in accordance with the Contract Documents and all incidental Work necessary to complete the Project in an acceptable manner, ready for use, occupancy, or operation by the City.

The Drawings, Specifications/project manual, and all other documents comprising the Contract Documents, shall be supplementary to each other, and any material, Workmanship, and/or service which may be in one, but not called for in the others, shall be as binding as if indicated, called for, or implied by all. In case of discrepancy or disagreement in the contract documents, the order of precedence shall be: Construction Contract, Specifications, large-scale drawings, and small-scale drawings.

Any discrepancies found between the Drawings and Specifications and site conditions or any inconsistencies or ambiguities in the Drawings or Specifications shall be immediately reported to the Designer for the City, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. Work done by the Contractor after his discovery of such discrepancies, inconsistencies, or ambiguities shall be done at the Contractor's risk.

Each section or type of Work is described separately in the Technical Specifications. For convenience of reference and to facilitate the letting of contracts and subcontracts, these Specifications are separated into titled sections. Such separation shall not, however, operate to make the City an arbiter to establish limits to the contracts between the Contractor and Subcontractors, nor shall such separation be interpreted as superseding normal construction trade jurisdictions. Should any item of material, equipment, Work, or combinations of such be required in one section, and not be described in that section and a similar item described in another section, that description shall apply regardless of the section under which it is described. In case of conflict between the Drawings and Specifications, the Specifications shall govern. Figure dimensions on Drawings shall govern over scale dimensions, and detailed drawings shall govern over general drawings.

Attention is directed to the fact that the detailed Specifications and separate sections may be written in short or abridged form. The Contractor shall in regard to every section of the Specifications and Drawings of articles, materials, operations, or methods:

1. Provide each item mentioned and indicated, of quality or subject to qualifications noted.
2. Perform according to conditions stated, each operation prescribed.
3. Provide therefore all necessary labor, equipment and incidentals.

Whenever in these Specifications or on the Drawings the words "directed," "required," "permitted," "ordered," or words of like import are used, it shall be understood that the direction, requirement, permission or order of the City is intended, and similar words, "approved," "acceptable," "satisfactory," or words of like import shall mean approved by, acceptable to, or satisfactory to the City.

Notwithstanding the appearance of such language in the various sections of the Specifications as, "The Paving Contractor," "The Grading Contractor," etc., the Contractor is responsible to the City for the entire Contract and the execution of all Work referred to in the Contract Documents.

The Designer for the City may (without changing the scope of the Work) furnish the Contractor additional instructions and detail drawings, as necessary to carry out the Work required by the Contract Documents. The additional drawings and instructions thus supplied will become a part of the Contract Documents. The Contractor shall carry out the Work in accordance with the additional detail drawings and instructions.

## 6. PRESENT DOCUMENTS GOVERN

The Contractor shall in no case claim a waiver of any specification requirements on the basis of previous approval of material or Workmanship on other jobs of like nature or on the basis of what might be considered "standard" for material or Workmanship in any particular location. The Contract Documents for this job shall govern the Work.

## 7. CONTRACTOR'S SHOP DRAWINGS

Within thirty (30) consecutive days after the issuance of the Notice to Proceed, the Contractor shall submit a schedule for the submission of all shop drawings, product data, samples, and similar submittals to the Designer. The schedule shall indicate the items, relevant specification sections, other related submittal data, and the date when these items will be furnished to the Designer. Pay applications shall not be approved until the submittal schedule had been submitted.

The approved Drawings will be supplemented by such Shop Drawings as are needed to adequately control the Work. It is mutually agreed that all authorized alterations affecting the requirements and information given on the approved Drawings shall be in writing.

Shop Drawings to be furnished by the Contractor for any structure shall consist of such detailed drawings as may be required for the prosecution of the Work.

Shop Drawings must be approved by the Designer before the Work in question is performed. Drawings for false Work, centering, and formwork may also be required, and in such cases shall be likewise subjected to approval unless approval be waived. It is expressly understood, however, that approval of the Contractor's Shop Drawings does not relieve the Contractor of any responsibility for accuracy of dimensions and details. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of his Shop Drawings with the approved Drawings and Specifications.

It is the responsibility of the Contractor to review and approve all Shop Drawings before same are submitted to the Designer for approval. Shop Drawings that have not been reviewed and approved by the Contractor will not be approved.

Shop Drawings shall be submitted only by the Contractor who shall indicate by a signed stamp on the drawings that he has reviewed and approved the Shop Drawings and that the Work shown on them is in accordance with Contract requirements and has been checked for dimensions and relationship with Work of all other trades involved. Under no conditions shall Shop Drawings be accepted from anyone other than the Contractor.

The Contractor shall furnish the Designer at least six (6) hard copies of all Shop Drawings for approval. Shop drawings may also be electronically submitted for approval utilizing construction/project management software. Either the Designer or the Contractor shall be the license holder of the software, house the software program on its server, and provide access to the City via a secured password and username. The Designer shall review required submittals promptly, noting desired corrections, if any, and retaining three (3) copies for his use. The remaining copies will be returned to the Contractor by the Designer for his use not later than twenty-one (21) days from the date of the receipt for multiple

disciplines or fourteen (14) days from the date of receipt for single discipline. The Contractor shall furnish the required submittals with sufficient information and accuracy in order to obtain required approval of any item with no more than three submittals. Designer will record time beyond the initial three submittals for reviewing subsequent submittals of shop drawings, samples, or other items requiring approval and the Contractor shall reimburse the Owner for the charges for such time accrued by the Designer. The Contractor shall also be responsible for any delays to the project's schedule resulting from additional reviews.

The Contract Price shall include the cost of furnishing all Shop Drawings and the Contractor will be allowed no extra compensation for such drawings.

The approval of such Shop Drawings shall not relieve the Contractor from responsibility for deviations from Drawings or the Specifications unless he has in writing called attention to such deviations, and the Designer has approved the changes or deviations in writing at the time of submission, nor shall it relieve him from the responsibility for errors of any kind in Shop Drawings. When the Contractor does call such deviations to the attention of the Designer, he shall state in his letter whether or not such deviations involve any extra cost. If this is not mentioned, it will be assumed that no extra cost is involved for making the change.

#### 8. INSTRUCTIONS, CHANGES, ETC.

All changes, alterations or instructions in regard to any feature of the Work that differ from the Drawings and Specifications must be approved in writing in all cases, and no verbal orders will be regarded as a basis for claims for extra Work.

If the Contractor claims that any instruction by Drawings for a change or otherwise involves extra cost or an extension of time, he shall notify the Designer in writing within ten (10) days after the receipt of such instruction and, in any event, before proceeding to execute the Work. Thereafter, the procedure shall be the same as that described for changes in the Work. No such claim shall be valid unless made in accordance with the terms of this section.

No claims for extra cost will be considered based on an escalation of material prices throughout the period of the Contract.

No extra Work is to be performed or any change made that involves any extra cost or extension of time unless approved through an Authorization Request.

The Designer shall have authority, however to order minor changes in the Work not necessitating a cost event or change order, and not inconsistent with the intent of the Contract Documents. Such minor changes shall be effected by written order, bulletin drawing, or supplemental architectural instructions and shall be binding to the Owner and the Contractor.

#### 9. EXAMINATION OF WORK BY CONTRACTOR

It is understood and agreed that the Contractor, has by careful examination, satisfied himself as to the nature and location of the Work, the conformation of the ground, the character, quality, and quantity of the facilities needed preliminary to and during the prosecution of the Work, the general and local conditions, and all other matters which can in any way affect the Work or the cost thereof under this Contract. No verbal agreement or conversation with any officer, agent, or employee of the City, either before or after the execution of the Contract, shall affect or modify any of the terms or obligations herein contained.

The Contractor shall, in good Workmanlike manner, do and perform all Work and furnish all supplies and materials, machinery, equipment, facilities, and means, except as herein otherwise expressly specified, necessary, or proper to perform and complete all the Work required by this Contract, within the time herein specified, in accordance with the provisions of this Contract and said Specifications

and in accordance with the Drawings of the Work covered by this Contract and any and all supplemental drawings of the Work covered by this Contract. He shall furnish, erect, maintain, and remove such construction, plants, and such temporary Works as may be required. He alone shall be responsible for the safety, efficiency, and adequacy of his plants, appliances, and methods, and for any damage, which may result from their failure or their improper construction, maintenance, or operation. The Contractor shall observe, comply with, and be subject to all terms, conditions, requirements, and limitations of the Contract and Specifications, local ordinances, and State and Federal laws; and shall do, carry on, and complete the entire Work.

The Contractor is and remains fully responsible for his own acts or omissions as well as those of any subcontractor or any employee of either. The Contractor agrees that no contractual relationship exists between the subcontractor and the Owner in regard to the Contractor and that the subcontractor acts on this Work as an agent or employee of the Contractor.

## 10. MATERIALS, SERVICES AND FACILITIES

The Contractor shall at all times employ sufficient labor and equipment for prosecuting the Work to full completion in the manner and time specified. Failure of the Contractor to provide adequate labor and equipment may result in default of the Contract. The labor and equipment to be used in the Work by the Contractor shall be sufficient to meet the requirements of the Work and shall be such as to produce a satisfactory quality of Work, in accordance with accepted industry practices within the time specified in the Contract.

If at any time during the construction and completion of the Work covered by these construction documents, the language, conduct, or attire of any Workman of the various crafts be adjudged a nuisance to the Owner or Designer, or if any Workman be considered detrimental to the Work, the Contractor shall order such parties removed immediately from the ground.

Materials and equipment shall be so stored and handled as to insure the preservation of their quality and fitness for the Work. Stored materials and equipment to be incorporated in the Work shall be located so as to facilitate prompt inspection. No product that has in any way become unfit for the intended purpose shall be incorporated into the Work.

Manufactured articles, materials and equipment shall be applied, installed, connected, erected, cleaned, and conditioned as directed by the manufacturer.

Materials, supplies, and equipment to be incorporated into the Work shall be new and unused unless otherwise specifically stated in the Contract Documents. The source of supply for all such products shall be submitted to the Designer, together with detailed descriptions thereof in the form of samples, Shop Drawings, tests, or other means necessary to adequately describe the items proposed. If, after trial, it is found that sources of supply, even though previously approved by the Designer, have not furnished products meeting the intent of the Contract Documents, the Contractor shall thereafter furnish products from other approved sources, and shall remove completed Work incorporating products which do not meet Contract requirements.

## 11. "OR EQUAL" CLAUSE

In accordance with G.S. 133-3, whenever a material or article required is specified or shown on the Drawings and/or Specifications by using the name of the proprietary product or of a particular manufacturer or vendor, the Designer shall denote that the quality standard of the article desired is the intent and the Contractor is not restricted to the specific brand, make, or manufacturer so named. The Designer shall specify three or more examples of items of equal or equivalent design. Any material or article that will perform adequately the duties imposed by the general design may be considered equal and satisfactory providing the material or article so proposed is of equal substance and function. The opinion of the Designer shall be final and no substitute material or article shall be purchased or installed without such written approval.

Any proposed substitutions of materials, items, or equipment of equal or equivalent design shall be submitted to the Designer for approval or disapproval prior to the opening of bids. Proposed substitutions shall only be submitted by the prime contractors. No requests from subcontractors, manufacturers or suppliers will be accepted.

## 12. TESTING OF MATERIALS

Unless otherwise specifically provided for, testing of materials and finished articles to be incorporated in the Work at the site shall be made by bureaus, laboratories, or agencies approved by the Designer. All laboratory tests shall be paid by the Owner unless provided otherwise in the contract documents. The Contractor shall furnish evidence satisfactory to the Designer that the material and finished articles have passed the required tests prior to the incorporation of such materials and finished articles in the Work.

The Contractor shall pay for the laboratory tests to establish design mixes for concrete and for additional tests to prove compliance with contract documents where materials have tested deficient except where the testing laboratory did not follow the appropriate testing procedures as defined in the Specifications.

## 13. INSPECTION OF WORK

The Contractor shall, at all times, permit and facilitate inspection of the Work by authorized representatives of the City and authorities having jurisdiction in connection with the Work of this Contract. The presence or observations of the Designer or other City representatives at the site of the Work shall not be construed to, in any manner, relieve the Contractor of the responsibility for strict compliance with the provisions of the Contract Documents.

All Work shall be inspected by the Designer or the Owner's Consultants prior to being covered by the Contractor. The Contractor shall give a minimum of two weeks' notice unless otherwise agreed to by all parties. Not less than 48 hours prior to inspection or testing, the Contractor shall coordinate said events with the Designer, Owner, and/or respective parties. If inspection fails after the first re-inspection, all costs associated with additional re-inspections, including travel, per diem, etc. for the Designer or his authorized representative, shall be borne by the Contractor.

If the Specifications, City's instructions, laws, ordinances, or an authority having jurisdiction require any Work to be specially tested or approved, the Contractor shall give the Designer timely notice of its readiness for observation or inspection. If the inspection is by another authority, then the Designer shall be advised of the date fixed for such inspection. Required certificates of inspection shall be secured by the Contractor. Contractor having secured all certificates of inspection will deliver same to the Designer upon completion. If any Work should be covered up without approval or consent of the Designer, Project Manager, Special Inspector, it shall, if required by the Designer, be uncovered for examination at the Contractor's expense.

Should any disagreement or difference arise as to the estimate, quantities or classifications or as to the meaning of the Drawings or Specifications, or any point concerning the character, acceptability, and nature of the several kinds of Work, any materials and construction thereof, the decisions of the Designer shall be final and conclusive and binding upon all parties to the Contract.

## 14. AUTHORITY OF THE DESIGNER OF RECORD

The Contractor shall perform all of the Work herein specified under the general direction, and to the entire satisfaction, approval, and acceptance of the Designer. The Designer shall decide all questions relating to measurements of quantities; the character of the Work performed and as to whether the rate of progress is such that the Work will be completed within the time limit of the Contract. All questions as to the meaning of these Specifications will be decided by the Designer.

The approval of the Designer of any materials, plants, equipment, Drawings, or of any other items executed, or proposed by the Contractor shall be construed only to constitute an approval of general design. Such approval shall not relieve the Contractor from the performance of the Work in accordance with the Contract Documents, or from any duty, obligations, performance guarantee, or other liability imposed upon him.

#### 15. PROHIBITED INTERESTS

No official of the City who is authorized in such capacity and on behalf of the City to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction, or material supply contract, or any subcontract in connection with the construction of the Project, shall become directly or indirectly interested personally in this Contract or in any part hereof. No officer, employee, architect, attorney, engineer, or inspector of or for the City who is authorized in such capacity and on behalf of the City to exercise any legislative, executive, supervisory, or other similar functions in connection with the construction of the Project, shall become directly or indirectly interested personally in this Contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the Project.

#### 16. REJECTIONS OF WORK AND MATERIALS, AND OWNER'S RIGHT TO DO WORK

All materials and equipment furnished and all Work done that is not in accordance with the Drawings or Specifications or that is defective will be rejected. All rejected materials, equipment, or Work shall be removed immediately. If rejected materials, equipment, or Work is not removed within forty-eight hours from the date of letter of notification, the Designer shall have the right and authority to stop the Contractor and his Work immediately, and/or shall have the right to arrange for the removal of said rejected materials, equipment, or Work at the cost and expense of the Contractor. All rejected materials, equipment, or Work shall be replaced with other material, equipment, or Work that conforms with the Drawings and Specifications at no additional cost to the City.

Inspection of the Work shall not relieve the Contractor of any of his obligations to fulfill his Contract and defective Work shall be made good regardless of whether such Work, material, or equipment has been previously inspected by the Designer and accepted or estimated for payment. Neither the final certificate, final payment, occupancy of the premises by the Owner, nor any provision of the contract, nor any other act or instrument of the Owner, nor the Designer shall relieve the Contractor from responsibility for negligence or faulty material or Workmanship or failure to comply with the drawings and Specifications. The failure of the Designer to condemn improper materials or Workmanship shall not be considered as a waiver of any defect, which may be discovered later, or for Work actually defective. All Work, material, and/or equipment shall be guaranteed against defects for a period of one (1) year after final acceptance of the work performed.

If during the progress of the Work or during the period of guarantee, the Contractor fails to prosecute the Work properly or to perform any provision of the contract, the Owner, after seven days' written notice sent in person or via email with delivery confirmation or certified mail, return receipt requested, to the Contractor from the Designer, may perform or have performed that portion of Work. The cost of the Work may be deducted from any amount due or to become due to the Contractor, including retainage, such action and cost of same having been first approved by the Designer. Should the cost of such action of the Owner exceed the amount due or to become due to the Contractor, then the Contractor or his surety, or both, shall be liable for and shall pay to the Owner the amount of said excess.

#### 17. ROYALTIES AND PATENTS

The Contractor shall hold and save the City and its officers, agents, servants, and employees, harmless from liability of any nature or kind, including cost and expenses for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance



of the Contract, including its use by the City, unless otherwise specifically stipulated in the Contract Documents.

#### 18. CONTRACTOR'S PERSONNEL

The Contractor will supervise and direct the Work. He will be solely responsible for the means, methods, techniques, sequences, and procedures of construction. An experienced Superintendent and the necessary assistants competent to supervise the particular types of Work involved shall be assigned to the Project by the Contractor, and shall be present at the site at all times when Work is in progress. The name of the Superintendent shall be submitted with qualifications of same prior to start of the Work and shall be approved by the Designer prior to start of the Work. The Superintendent so named by the Contractor shall be employed by the Contractor and shall have served in a supervisory capacity on at least one Project of like description and size performed by the Contractor during the previous twelve months. Under no circumstances shall an employee of any Subcontractor serve as Project Superintendent. The Superintendent shall represent the Contractor, and all directions given to the Superintendent shall be as binding as if given to the Contractor.

Only persons skilled in the type of Work that they are to perform shall be employed. The Contractor shall, at all times, maintain discipline and good order among his employees, and shall not employ on the Work any unfit person or persons or anyone unskilled in the Work assigned him. The Contractor shall insure that all employees maintain proper respect and courtesy for the any persons/individuals on the project site or in adjacent off site areas.

#### 19. LINES, GRADES AND MEASUREMENTS

Such stakes and markings as the Designer may set for either its or the Contractor's guidance shall be preserved by the Contractor. Failure to protect such stakes or markings, or gross negligence on the Contractor's part resulting in loss of same, may result in the Contractor being charged for their replacement.

The Contractor must exercise proper care and caution to verify the grades and figures given him before proceeding with the Work, and shall be responsible for any damage or defective Work caused by his failure of such care and caution. The Contractor shall promptly notify the Designer of any errors or discrepancies he may discover in order that the proper corrections may be made.

#### 20. PERMITS, LICENSES, AND IMPACT FEES

Permits and licenses of a temporary nature necessary for the prosecution of the Work shall be secured by the Contractor. Costs for permits, licenses, and impact fees may be included in the total contract amount as an allowance. Refer to the bid documents or Supplemental General Conditions.

#### 21. LAWS AND REGULATIONS

The Contractor's attention is directed to the fact that all applicable Federal, State, and City laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the Contract Documents the same as though herein written out in full. The Contractor shall keep himself fully informed of all laws, ordinances, and regulations of the Federal, State, and City in any manner affecting those engaged or employed in the Work or the materials used in the Work or in any way affecting the conduct of the Work and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency should be discovered in this Contract, or in the Drawings or Specifications herein referred to, in relation to any such law, regulation, ordinance, order, or decree, he shall herewith report the same, in writing, to the Designer. He shall at all times himself observe and comply with all such laws, ordinances, and regulations, and shall protect and indemnify the City and its agents against any such law, ordinance, regulation, order, or decree, whether by himself or by his employees.

## 22. SUBCONTRACTING

The Contractor understands and agrees that it shall be a breach of this Contract to subcontract any portion of the Work on this Project unless the Work and the Contractor proposed to perform it have been declared in the Proposal to the Contract. Within thirty (30) days after award of the contract, the Contractor shall submit to the Designer and Owner a list giving the names and addresses of subcontractors, and equipment and material suppliers he proposes to use together with the scope of their respective parts of the Work. Should any subcontractor be disapproved by the Designer or Owner, the Designer or Owner shall communicate its decision to the Contractor. The Contractor shall present substitutions to the Designer and Owner for approval. If the subcontractor is listed on the MWBE affidavits, another MWBE subcontractor with similar certification/classification shall be substituted.

THE CONTRACTOR FURTHER UNDERSTANDS AND AGREES THAT ANY WORK ON THIS PROJECT WHICH THE CONTRACTOR SECURES IN VIOLATION OF THIS PROVISION SHALL BE DEEMED A GRATUITY FROM THE CONTRACTOR FOR WHICH THE CITY OF RALEIGH SHALL NOT BE OBLIGATED TO PAY. ALSO, THAT ANY WORK DONE BY THE SUBCONTRACTOR AND NOT MEETING THE SPECIFICATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE AT HIS OWN COST.

Nothing contained in this Contract shall create any contractual relation between any Subcontractor and the City.

## 23. ASSIGNMENTS

The Contractor shall not assign the whole or any part of this Contract or any monies due or to become due hereunder without written consent of the City.

## 24. INSURANCE REQUIREMENTS

Please see the City of Raleigh Form of Contract and Supplemental Conditions for the insurance requirements.

## 25. LAND AND RIGHTS-OF-WAY

Prior to entering on any land or right-of-way, the Contractor shall ascertain the requirements of applicable permits or easements secured by the City or required of the Contractor, and shall conduct his Work in accordance with requirements thereof including the giving of notice.

The Contractor shall provide at his own expense and without liability to the City any additional land and access thereto that the Contractor may desire for temporary construction facilities, or for storage of materials.

## 26. PROTECTION OF WORK, PROPERTY AND PERSONS

The Contractor will be required to protect all Work and materials against damage or injury from the weather. If, in the opinion of the Designer, any Work or materials shall have been damaged or injured by reason of failure to protect such, all such materials or Work shall be removed and replaced at the expense of the Contractor.

The Contractor will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, lakes, drainage ways, walks, pavements, roadways, structures

and utilities not designated for removal, relocation or replacement in the course of construction. Contractor shall provide continuously sufficient illumination at all barricades and at protective barriers around excavations so that the public is adequately warned of such hazards. The Contractor shall, where necessary, provide and maintain access to and from all adjacent properties as directed by the plans and Specifications, or the Designer, or the Owner's Representative, for street rights of way, along the line of his Work. He shall abide by the Manual on Uniform Traffic Control Devices (MUTCD) for any street closures or traffic control.

The Contractor will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain, as required by the conditions and progress of the Work, all necessary warning safeguards for devices and safety and protection of the Work, the public, and adjoining property. He will notify Owners of adjacent utilities when prosecution of the Work may affect them. The Contractor will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by 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.

The Contractor shall, prior to commencing other on-site Work, accurately locate above and below ground utilities and structures, which may be affected by the Work, using whatever means may be appropriate. The Contractor shall mark the location of existing utilities and structures, not otherwise readily visible, with flagging, stakes, barricades, or other suitable means, and shall preserve and protect all utilities and placement in the course of construction. He shall notify the Designer promptly on discovery of any conflict between the Contract Documents and any existing facility.

In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, or unanticipated conditions where delay would substantially impact the time or cost of Work, the Contractor, upon notification to the Designer, shall act to prevent threatened damage, injury, or loss. Any claim for compensation or extension of time by the Contractor due to such extra Work shall be submitted to the Designer within ten (10) days of the date of performing such Work or deviations in the manner prescribed for a cost event or change order. The Designer will evaluate and determine if the claims asserted by the Contractor warrant a cost event or change order, and will make a recommendation to the Owner.

All existing utilities, both public and private, including sewer, gas, water, electrical, and telephone services, etc., shall be protected and their operation shall be maintained through the course of the Work. Any temporary shutdown of an existing service shall be arranged between the Contractor and the utility responsible and hold the City harmless from the result of any damage that may occur as a result of the Contractor's activities.

Please see the City's Form of Contract and the Supplemental Conditions for additional safety requirements.

## 27. PRIOR USE BY CITY

Prior to completion of the Work, the City may take over operation and/or use of the uncompleted Project or portions thereof. The Contractor must agree to the prior use, and it must not prevent the Contractor from completing the Work. Such prior use of facilities by the City shall not be deemed as acceptance of any Work or relieve the Contractor from any of the requirements of the Contract Documents.

Where the City has beneficial occupancy of a usable facility prior to the expiration of the specified Contract Time, but where contract Work items remain outstanding, the City, at its option, may, in lieu of all or a proportion of liquidated damages owed by the Contractor, charge the Contractor for actual cost of administering the Contract for a period subsequent to expiration of the Contract completion date (not to exceed the total amount which could be assessed under liquidated damages).

28. CLEANING UP AND SITE ACCESS

The Contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by Contractor's employees or Work. Upon completion of the Work, the Contractor shall remove all his equipment, tools, materials, and other articles from the property of the City.

Delivery of construction materials and equipment shall be only from locations approved by the City.

29. DISPOSAL OF WASTE MATERIALS FROM ANY CONSTRUCTION

Disposal of all waste material from construction sites shall be made in strict accordance with all State laws and City ordinances pertaining to disposal of construction or hazardous waste. It shall be the responsibility of the Contractor to secure the necessary permits and provide all information required to secure said permits. The Contractor shall designate the disposal site prior to beginning construction and in the event waste material is to be disposed of on private property, a letter from the property Owner shall be furnished to the Owner or its representative granting the Contractor or his agent(s) such permission and listing the requirements made by the property Owner on the Contractor, if any.

30. CHANGES IN THE WORK

The City may at any time, as the need arises, order changes within the scope of the Work without invalidating the agreement. If such changes increase or decrease the amount due under the Contract Documents or in the time required for performance of the Work, an adjustment may be authorized by a cost event or change order.

The Designer, also, may at any time, make changes in the details of the Work. The Contractor shall proceed with the performance of any changes in the Work so ordered by the Designer unless the Contractor believes that such change entitles him to a change in contract price, time, or both, in which event he shall give the Designer written notice thereof within five (5) days after the receipt of the ordered change, and the Contractor shall not execute such changes pending the receipt of authorization from the City or the Designer.

Quotation Form for Cost Change Proposal

Project:

Brief Description of Change:

1.	Products (itemized breakdown attached)	\$ _____	1
2.	Rental of Equipment (list separately)*	\$ _____	2
	TOTAL of 1 + 2	\$ _____	A
3.	Labor (itemized breakdown)	\$ _____	3
4.	Insurance (Worker's Compensation, Social Security, or as otherwise required or specified): % [Capped at 30%]	\$ _____	4
	TOTAL (A) + 3 + 4	\$ _____	B
5.	Overhead and Profit {15% of Total (B)}**	\$ _____	5
	TOTAL (B) + 5	\$ _____	C

6.	Sales Taxes on Total (A)	\$ _____	6
	TOTAL of (C) +6	\$ _____	D
7.	Subcontracted Work (if applicable in a similar breakdown (through total (D). Profit and overhead allowance is 15%)	\$ _____	7
8.	Prime Contractor's overhead and profit on item 7 sub-contractors' bids (5%)***	\$ _____	8
	TOTAL of 7 + 8	\$ _____	E
	TOTAL of (D) + (E)	\$ _____	F
9.	Performance/Payment Bonds on total (F)	\$ _____	9

Extension of time requested: \_\_\_\_\_ calendar days

Notes:

- \*- Include current schedules with each request if equipment is involved.
- \*\*- In case of deductible changes, this figure will be ten percent (10%).
- \*\*\*- In case of deductible changes, this figure will be zero percent (0%).

Where the extra Work involved is covered by unit prices quoted in the proposal, or subsequently agreed to by the Contractor, Designer, and the City, the value of the change shall be computed by application of unit prices based on quantities, estimate or actual as agreed of the items involved, except in such cases where a quantity exceeds the estimated quantity allowance in the contract by more than 100%. In such cases, either party may elect to negotiate a new unit price, based on actual costs, or apply the unit prices in the original bid/proposal.

31. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

It is hereby understood and mutually agreed, by and between the Contractor and the City, that the date of beginning, rate of progress and the time for completion of the Work are essential conditions of this Contract; and it is further mutually understood and agreed that the Work embraced in this Contract shall be commenced on a date to be specified in the Notice to Proceed.

The Contractor agrees that said Work shall be prosecuted regularly, diligently and uninterrupted at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the City, that the time for the completion of the Work described herein is a reasonable time for the completion of the same, taking into consideration the average climate range prevailing in this locality.

If the said Contractor shall neglect, fail or refuse to complete the Work within the time herein specified, then the Contractor does hereby agree, as a part consideration for the awarding of this Contract, to pay to the City, the amount specified herein or in the Supplemental Conditions, not as a penalty, but as liquidated damages.

It is further agreed that time is of the essence of each and every portion of this Contract and of the Specifications wherein a definite portion and certain length of time is fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any Work, the new time limit fixed by such extension shall be the essence of this Contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the Work is due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, or to the public enemy, acts of the City, acts of

another Contractor in the performance of a contract with the City, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather exceeding the average climatic conditions in that area of the Work.

Provided further, that the Contractor shall within ten days from the beginning of such delay, notify the City, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the Contractor within a reasonable time of its decision in the matter.

Time of completion and liquidated damages are stated in the Supplemental General Conditions and other contract documents.

### 32. TIME EXTENSIONS

If the contract is delayed at any time in the progress of his Work, solely by an act or negligence of the Owner, Designer, or by any employee of either; by any separate Contractor employed by the Owner; by changes ordered in the Work; by labor disputes at the project site; by abnormal weather conditions not reasonably anticipated for the locality where the Work is performed; by unavoidable casualties; by any causes beyond the Contractor’s control; or by any other causes which the Designer and Owner determine may justify the delay, then the contract time may be extended by change order only for the time which the Designer and Owner may determine is reasonable.

Time extensions will not be granted for rain, wind, snow, or other natural phenomena of normal intensity for the locality where Work is performed. The time for completion includes an allowance for bad weather days based on climatological data and is adjusted to reflect the number of working days per month, which would be affected.

For the purposes of this contract bad weather days are defined as follows:

- a. Days on which precipitation exceeds 0.10 inch.
- b. Days on which the temperature fails to exceed 40 degrees F average.

(A day, which qualifies on criteria for both precipitation and temperature, shall be counted as one day.)

B. Bad weather working days included:

Month	Days	Month	Days	Month	Days
January	17	May	7	September	5
February	15	June	4	October	3
March	5	July	5	November	9
April	4	August	5	December	10

c. If the total accumulated number of working days lost to bad weather exceeds the total number tabulated above time for completion will be extended by the difference. Time of completion will not be adjusted for actual bad weather days which total less than the number included in the tabulation, or not requested within the 10 days of occurrence.

For the purposes of determining the extent of a delay attributable to unusual weather phenomena, please see the Supplemental Conditions, which define the maximum number of days by month that can be considered “bad weather” days. Time extensions for weather delays, acts of God, labor disputes, fire, delays in transportation, unavoidable casualties or other delays which are beyond the control of the Owner do not entitle the Contractor to compensable damages for delays. Any Contractor claim for compensable damages is limited to delays caused solely by the Owner or its agents. Contractor caused delays shall be accounted for before Owner or Designer caused delays in the case of concurrent delays.

No weather delays shall be considered after the building has been dried in unless Work claimed to be delayed is on the critical path of the baseline schedule or approved updated schedule. This determination can only be made in consultation with the Designer and Owner.

### 33. PAYMENTS TO CONTRACTOR

Cost Breakdown - The Contractor shall be prepared to submit a cost breakdown immediately after the opening of Bids. Cost breakdown shall be based on values of parts of the Work as divided according to sections of the Specifications, and shall be further subdivided into labor and materials. The Contractor shall use the AIA G702 & G703 Forms for cost breakdown and all payment requests.

Applications for payment shall be submitted to the Designer for review and certification prior to submittal to the Owner for payment. Applications that have not been certified by the Designer shall be rejected by the Owner and returned to the Contractor. Designers will forward certified pay applications to the Project Manager for prompt payment. The pay application shall include the following information:

- a. Total of the contract including change orders or approved authorization requests.
- b. Value of Work completed to date.
- c. Less 5% Retainage (see additional clarification in this section).
- d. Less previous payments.
- e. Current amount due.
- f. The Contractor shall provide a sales tax statement certifying the amount of sales taxes paid for the Work provided under the contract. Manufacturers are not exempt from paying North Carolina sales taxes for providing an item directly to the City of Raleigh. If you have any questions about the sales tax requirements for the state of North Carolina, please contact the North Carolina Department of Revenue at (919)707-0880.

As specified in G.S. 143-134.1(b), within seven (7) days of receipt of payment by the Contractor of each periodic or final payment, the Contractor shall pay its subcontractor(s) based on Work completed or service(s) provided. If any periodic or final payment to the subcontractor is delayed by more than seven days after receipt of periodic or final payment by the Contractor, the Contractor shall pay the subcontractor interest, beginning on the eighth day, as a rate of one percent (1%) per month or fraction thereof on the unpaid balance as is due.

In accordance with G.S. 143-134.1(b1), no retainage on periodic or final payments made by the Owner or Contractor shall be allowed on public construction contracts in which the total project costs are less than one hundred thousand dollars (\$100,000). When the project is fifty percent (50%) complete, the Owner, with written consent of the surety, shall not retain any further retainage from periodic payments due the Contractor, if the Contractor continues to perform satisfactorily and any nonconforming Work identified in writing prior to that time by the designer or Owner has been corrected and accepted by the designer or Owner. If the Owner determines that the Contractor's performance is unsatisfactory, the Owner may reinstate retainage.

Each pay application shall reference the City's assigned purchase order number.

Materials and Work Covered by Partial Payments - All materials and Work covered by progress payments shall, upon payment thereof, become the sole property of the City, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of materials and Work upon which payments have been made, or the restoration of any damaged Work.

### 34. PAYMENTS WITHHELD

The Designer may recommend to the Owner to withhold payment for any of the following reasons:

- a. Faulty Work not corrected.
- b. The unpaid balance on the contract is insufficient to complete the Work in the judgment of the Designer.
- c. To provide for sufficient contract balance to cover liquidated damages that will be assessed.
- d. Evidence that subcontractors have not been paid.

### 35. SCHEDULES, REPORTS AND RECORDS

The Contractor shall submit to the Designer such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records, and other data as the Designer may request concerning Work performed or to be performed.

The Contractor shall submit to the Designer within thirty (30) days after the issuance of the Notice to Proceed schedules showing the order in which he proposes to carry on the Work, including dates at which he will start the various parts of the Work, estimated date of completion of each part; and, as applicable, the dates at which special detail drawings will be required, and respective dates for submission of Shop Drawings, the beginning of manufacture, the testing and the installation of materials, supplies and equipment. The basic project schedule shall be presented at the preconstruction meeting and no partial payments shall be made until it has been submitted to the Designer and City. The Designer shall specify acceptable scheduling or project management software programs, type of schedule methodology, either bar chart or critical path, to be utilized by the Contractor in reflecting the construction project's progress. The Contractor shall provide the schedule to the Designer and Owner electronically and in hard copy. See supplemental conditions if there are preferred scheduling software required by the Designer and/or Owner and any specific scheduling requirements.

Where a bar chart schedule is required, it shall be time-scaled in weekly increments, shall indicate the estimated starting and completion dates for each major element of Work by trade and by area, level, or zone, and shall schedule dates for all salient features, including, but not limited to the placing of orders for materials, submission of shop drawings, and other submittals for approval, approval of shop drawings by Designers, the manufacture and delivery of material, the testing and the installation of materials, supplies and equipment and all Work activities to be performed by the Contractor. The Contractor shall allow sufficient time in his schedule for all commissioning, required inspections and completion of the final punchlist(s). Each Work activity will be assigned a time estimate by the Contractor. One day shall be the smallest time unit used.

Critical Path Method (CPM) schedule is required for all formal projects. The CPM schedule shall be in time-scaled precedence format. It shall be drawn or plotted with activities grouped or zoned by Work area of subcontract as opposed to random format. The CPM schedule shall be time-scaled on a weekly basis and shall be drawn or plotted at a level of detail or logic which will schedule all salient features of the Work to be performed by the Contractor. The Contractor shall allow sufficient time in his schedule for all commissioning, required inspections, and completion of final punchlist(s). Each Work activity will be assigned a time estimate by the Contractor. One day shall be the smallest time unit used.

The CPM will identify and describe each activity, state the duration of each activity, the calendar dates for the early and late start and the early and late finish of each activity, and clearly highlight all activities on the critical path. "Total float" and "free float" shall be indicated for all activities. Float time shall not be considered for the exclusive use or benefit of either the Owner or the Contractor, but must be allocated in the best interest of completing the Work within the contract time. Extensions to the Contract time, when granted, will be granted only when equitable time adjustment exceeds the total float in the activity or path of activities affected by the change.

The Contractor shall submit updated schedules at each monthly meeting or at the request of the Designer or Owner. If any activities are behind schedule, the Contractor must indicate in writing what measures will be taken to bring each activity back on schedule and to ensure that the contract completion date is not exceeded. A plan of action and recovery schedule shall be developed and submitted to the Designer when: (1) the Contractor's report indicates delays, that are in the opinion of the Designer or Owner, of sufficient magnitude that the Contractor's ability to complete the Work by the scheduled completion date is brought into question; or (2) the updated construction schedule is thirty (30) days behind the planned or baseline schedule and no legitimate time extensions are in process or have been approved; or (3) the Contractor desires to make changes in the logic (sequencing of Work) or the planned duration of future activities of the CPM schedule which, in the opinion of the Designer or Owner, are of a



major nature. The plan of action, when requested by the Designer or Owner, shall be submitted to the Designer and Owner, within five calendar (5) days of the request. The recovery schedule, when required, shall be submitted to the Designer and Owner, within five (5) calendar days of the request.

Failure to provide updated construction schedules, plans of action, or recovery schedules, as requested or required, shall be considered grounds for rejection of pay applications.

The Contractor shall also submit a schedule of payments that he anticipates he will earn during the course of the Work.

#### 36. CITY'S RIGHT TO TERMINATE

Please see the City of Raleigh Form of Contract concerning the City's right to terminate.

#### 37. FINAL ACCEPTANCE OF WORK AND FINAL PAYMENT

Final Acceptance shall occur when the Designer and Owner mutually agree to accept the project from the contractor. Final acceptance of the project shall not be considered before the final inspection is conducted. Final acceptance of the project may occur prior to correction of punch list items.

- A. Final Inspection: Upon notice from the Contractor that his Work is completed, the Designer and Owner shall make a final inspection of the Work, and shall notify the Contractor of all instances where his Work fails to comply with the Drawings and Specifications, as well as any defects he may discover. Deficiencies shall be recorded on a "punch list" and the Contractor shall immediately make such alterations as are necessary to make the Work comply with the Drawings and Specifications.
- B. Final Payment: When the Work under this Contract is completed, a final payment request shall be submitted representing the original Contract Price, cost events, and change orders to the Contract. The final payment shall not be due until the Contractor shall have completed all Work necessary and reasonably incidental to the Contract, including final clean up. The final payment may not be processed until the Designer has certified that the project has been completed in accordance with the contract specifications and drawings. All close-out documents, including record drawings, guarantees, warranties, reports, operations and maintenance manuals, etc., shall have been provided to the Owner for final payment to be issued. Any training requirements shall also have been satisfied before final payment shall be issued.

Final acceptance of the Work and the making of final payment shall not constitute a waiver of any claims by the City. Payments otherwise due the Contractor, including Retainage, may be withheld by the City because of defective Work not remedied and unadjusted damage to others by the Contractor or Subcontractors, vendors or laborers.

All claims for final payment must be submitted within 60 days after the Work has been completed and accepted by the City. Failure to present said claims within that period shall constitute a waiver of the claim by the Contractor. All claims are subject to final approval and audit by the City of Raleigh.

#### 38. GUARANTEE, WARRANTIES, AND CORRECTION OF WORK

The Contractor shall guarantee all Work to have been accomplished in conformance with the Contract Documents. Neither the final payment application nor any provision of the Contract Documents, nor partial or entire occupancy or use of the Work by the City, shall constitute an acceptance of any part of the Work not done in accordance with the Contract Documents, or relieve the Contractor of liability for incomplete or faulty materials or workmanship. The Contractor shall promptly remedy any omission or defect in the Work and pay for any damage to other improvements or facilities resulting from such omission or defect which shall appear within a period as defined in the Supplemental Conditions. In the

event that the Contractor should fail to make repairs, adjustments or other remedy that may be made necessary by such defects, the City may do so and charge the Contractor the cost thereby incurred.

### 39. CONTRACTOR EVALUATION

The Contractor's overall Work performance on this project shall be fairly evaluated by the Owner and the Designer for determining qualifications to bid on future City projects. In addition to the final evaluation, interim evaluations may be prepared during the progress of the project. The Owner may request the Contractor evaluate the Designer's performance.

# SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

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## SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

These Supplementary Conditions amend or supplement EJCDC® C-700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix “SC” added—for example, “Paragraph SC-4.05.”

### ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

#### 1.01 *Defined Terms*

SC-1.01.A.3. Add the following language to the end of Paragraph 1.01.A.3:

The Application for Payment form to be used on this Project is per City of Raleigh standards. Standard form to be used as a summary and signature sheet is included in Section 00620. Contractor shall use the City’s standard computerized forms, as included in these Contract Documents, for providing detail payment breakdown as an attachment to summary sheet. Contractor shall also include as part of the Application for Payment the “Certificate of the Contractor or His Duly Authorized Representative”.

SC-1.01.A.8. Add the following language to the end of Paragraph 1.01.A.8:

The Change Order form to be used on this Project is the City of Raleigh standard. The Standard Form to be used is included in these Contract Documents.

SC-1.01.A.9. Add the following language to the end of Paragraph 1.01.A.9:

The Change Proposal form to be used on this Project is the City of Raleigh standard. The Standard Form to be used is included in these Contract Documents.

SC-1.01.A.42. Amend the first sentence of Paragraph 1.01.A.42 to read as follows:

The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer and Owner, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended.

SC-1.01.A.51. Add the following definitions after Paragraph 1.01.A.50:

A.51 *City* – City of Raleigh.

A.52 *Minority Business* - A business:

- a. In which at least fifty-one percent (51%) is owned by one or more minority persons or socially and economically disadvantaged individuals, or in the case of a corporation,

in which at least fifty-one percent (51%) of the stock is owned by one or more minority persons or socially and economically disadvantaged individuals; and

- b. Of which the management and daily business operations are controlled by one or more of the minority persons or socially and economically disadvantaged individuals who own it.

A.53 *Minority Person* - A person who is a citizen or lawful permanent resident of the United States and who is:

- a. Black, that is, a person having origins in any of the black racial groups in Africa;
- b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Islands, regardless of race;
- c. Asian American, that is, a person having origins in any of the original peoples of the Far East, Southeast Asia and Asia, the Indian subcontinent, or the Pacific Islands;
- d. American Indian, that is, a person having origins in any of the original Indian peoples of North America; or
- e. Female.

A.54 *Notice of Violation* - A written notification from a governmental agency that the Owner has violated a law or regulation that the agency has jurisdiction over. Notice will take the form used by the agency and may outline action to be taken by the Owner to correct the violation and may include a monetary fine.

A.55 *Small Tools* - Tools and equipment with an individual cost of less than \$1,000.

A.56 *Socially and Economically Disadvantaged Individual* - Same as defined in 15 U.S.C. 637; "Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities". "Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged."

## **ARTICLE 2 - PRELIMINARY MATTERS**

2.01 Delivery of Performance and Payment Bonds; Evidence of Insurance

SC-2.01.A Amend the first sentence of Paragraph 2.01.A by striking out the following words:

"(if the Contract requires Contractor to furnish such bonds)."

2.02 *Copies of Documents*

SC-2.02.A Delete the word "four" and insert "five" in its place in Paragraph 2.02.A.

## **ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, REQUIREMENTS , REUSE**

### **3.01 *Intent***

SC-3.01 Add the following new paragraphs immediately after Paragraph 3.01.G:

- H. The Contract Drawings may be supplemented from time to time with additional Drawings by the Engineer as may be required to illustrate the Work or, as the Work progresses, with additional Drawings, by the Contractor, subject to the approval of the Engineer. Supplementary Drawings, when issued by the Engineer or by the Contractor, after approval by the Engineer, shall be furnished in sufficient quantity to all those who, in the opinion of the Engineer, are affected by such Drawings.

## **ARTICLE 4 - COMMENCEMENT AND PROGRESS OF THE WORK**

### **4.01 *Commencement of Contract Times; Notice to Proceed***

SC-4.01.A Delete Paragraph 4.01.A in its entirety and insert the following in its place:

The Contract Times will commence to run on the day indicated in the Notice to Proceed; but in no event will the Contract Time commence to run later than the thirtieth day after the effective date of the Agreement. By mutual consent of the parties to the Contract, these time limits may be changed.

### **4.05 *Delays in Contractor's Progress***

SC-4.05.C Amend Paragraph 4.05.C by adding the following subparagraphs:

#### **5. *Weather-Related Delays***

- a. If "abnormal weather conditions" as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions adversely affected an activity on the critical path to completion of the Work, as of the time of the weather condition.
- b. The existence of abnormal weather conditions will be determined on a month-by-month basis in accordance with the following.
  - 1) **Bad Weather Day:** a workday where weather conditions adversely affect the Work and the impacted Work is on the critical path.
    - a) Determination of actual Bad Weather Days during performance of the Work will be based on weather at the Site. When Site weather data is not available, use nearest USGS weather station data.

- b) A workday after a daily rainfall amount greater than 1 inch will be considered an additional Bad Weather Day, subject to having an adverse effect on the Work as scheduled.
- 2) Foreseeable Bad Weather Days: determination of Foreseeable Bad Weather Days during performance of the Work will be based on the weather records measured and recorded by the National Oceanic & Atmospheric Administration, National Centers for Environmental Information (NOAA-NCEI) at the nearest weather monitoring station. For example, one source of weather records is from the NOAA-NCEI website: <https://www.ncdc.noaa.gov/cdo-web/datatools/normals>. From the website, click on the "View Station Report" link to find the Summary of Monthly Totals report.
- a) Contractor shall anticipate and factor into its bid and construction schedule the number of Foreseeable Bad Weather Days per month.
- 3) Abnormal Weather Conditions: is defined as the total Bad Weather Days in each month minus the Foreseeable Bad Weather Days.
- a) The existence of Abnormal Weather Conditions will not relieve Contractor of the obligation to demonstrate and document that delays caused by Abnormal Weather Conditions are specific to the planned work activities or that such activities thus delayed were on Contractor's then-current Progress Schedule's critical path for the Project.

SC-4.05 Add the following new paragraph immediately after Paragraph 4.05.G:

- H. Claims for additional Contract Time for delays beyond the Contractor's control shall be submitted within 30 days following the event(s) that caused the delay.

## **ARTICLE 5 - SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**

### **5.02 Use of Site and Other Areas**

SC-5.02.A Delete Paragraph 5.02.A.2 in its entirety and insert the following in its place:

- 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or its Derivative Parties (as defined in SC-7.18.E.3), Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise and (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction. In addition, the Contractor's indemnity, defense and hold harmless obligations to the Indemnified Parties (as defined in SC-7.18.A) under SC-7.18 shall apply as to any and all Losses (as defined in SC-7.18.E.2),

liabilities, damages, expenses and costs arising out of, resulting from, or in connection with any and all claims or actions brought by any such owner or occupant against one or more of the Indemnified Parties when the Fault of the Contractor or its Derivative Parties is a proximate cause of the Losses, liabilities, damages, expenses and costs so indemnified. Provided, however, nothing herein shall require the Contractor to indemnify the Indemnified Parties against any Losses, liabilities, damages, expenses and costs arising out of, resulting from, or in connection with any negligent acts of one or more of the Indemnified Parties.

5.03 *Subsurface and Physical Conditions*

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.D:

- E. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which Contractor may rely:

Report Title	Date of Report	Technical Data
		n/a

- F. The following table lists the drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data, and specifically identifies the Technical Data in the drawings upon which Contractor may rely:

Drawings Title	Date of Drawings	Technical Data
		n/a

- G. Contractor may examine copies of reports and drawings identified in SC-5.03.E and SC-5.03.F that were not included with the Bidding Documents at **n/a** during regular business hours or may request copies from Engineer.

5.05 *Underground Facilities*

SC-5.05.A Add the following new subparagraphs immediately after Subparagraph 5.05.A.5:

6. following the North Carolina General Statutes, Chapter 87, Article 8 Underground Damage Prevention;
7. notifying owners of Underground Facilities prior to start of Work;
8. investigating ahead of the Work to verify the existence of Underground Facilities;



9. assuming risks and repairing damage caused by the Work to existing Underground Facilities whether indicated or not in the Contract Documents. Repairs to Underground Facilities shall be done to the satisfaction of the Underground Facility owner. Underground Facility owner reserves the right to repair damage by the Contractor to their Underground Facilities. If the owner exercises this right, the owner's cost of this Work shall be deducted from the money due the Contractor;
10. uncovering Underground Facilities, with that Owners approval, that are located within the Work as necessary for Engineer to determine the requirements for the change in the Work;
11. unforeseen Underground Facilities unless a design change is required; this includes Underground Facilities not shown on the Drawings/ Bidding Documents. The Engineer and the Owner assume no responsibility for the locations of Underground Facilities shown or not shown. There will be no compensation for "lost time" due to unforeseen utilities. If existing Underground Facilities require change(s) to the design, the Contractor shall provide a price to complete revised Work.

5.06 *Hazardous Environmental Conditions at Site*

SC-5.06.A Add the following new subparagraphs immediately after subparagraph 5.06.A.3:

4. The following table lists the reports known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and the Technical Data (if any) contained in such reports upon which Contractor may rely:

Report Title	Date of Report	Technical Data
		n/a

5. The following table lists the drawings known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and Technical Data (if any) contained in such Drawings upon which Contractor may rely:

Drawings Title	Date of Drawings	Technical Data
		n/a

SC-5.06.B Delete Paragraph 5.06.B in its entirety and insert the following:

- B. Not used.

SC-5.06.I In the first line, insert "North Carolina" between "by" and "Laws".

SC-5.06.I Add the following language at the end of Paragraph 5.06.I:

The parties understand and acknowledge that no North Carolina case, statute, or Constitutional provision authorizes a local government to indemnify a Contractor and that this contract provision may be unenforceable.

SC-5.06.J Delete Paragraph 5.06.J in its entirety and insert the following in its place:

- J. Contractor's indemnity, defense and hold harmless obligations to the Indemnified Parties under SC-7.18 shall apply as to any and all Losses, liabilities, damages, expenses and costs caused by, arising out of, resulting from, or in connection with the Contractor's or its Derivative Parties' failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or its Derivative Parties, or to a Hazardous Environmental Condition created by Contractor or its Derivate Parties when the Fault of the Contractor or its Derivative Parties is a proximate cause of the Losses, liabilities, damages, expenses and costs so indemnified. Provided, however, nothing herein shall require the Contractor to indemnify the Indemnified Parties against any such Losses, liabilities, damages, expenses and costs arising out of, resulting from, or in connection with any negligent acts of one or more of the Indemnified Parties.

## **ARTICLE 6 - BONDS AND INSURANCE**

Article 6 Delete Article 6 in its entirety and insert the following in its place:

SC-6.01 *Performance and Payment Bonds*

- A. Concurrent with execution of the Contract and within fifteen (15) days of the Notice of Award, the successful Contractor shall procure, execute and deliver to the Owner and maintain, at Contractor's own cost and expense, the following bonds, in the forms included (Sections 00610 and 00615), of a surety company approved by the State of North Carolina as a Surety:
- B. Performance Bond - in an amount not less than 100% of the total amount payable to the Contractor by the terms of the Contract as security for the faithful performance of the Work. Bond must be valid until one year after the date of issuance of the certificate of Substantial Completion.
- C. Payment Bond - in an amount not less than 100% of the total amount payable to the Contractor by the terms of the Contract as security for the payment of all persons performing labor and furnishing material in connection with the Work. Bond must be valid until one (1) year after date of issuance of the certificate of Substantial Completion.
- D. All bonds signed by an agent must be accompanied by a certified copy of the authority to act.
- E. If the surety on any bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business in the State of North Carolina is revoked, the Contractor shall within five (5) days thereafter substitute another.

## SC-6.02 *Insurance Requirements*

- A. The Owner shall not be required under this Contract to procure or maintain any insurance for the Project or for the benefit of the Project participants.
- B. The Contractor shall ensure that it and all its Subcontractors shall procure and maintain insurance as required herein and as required by Laws and Regulations.
- C. All insurance required by the Contract to be purchased and maintained by Contractor shall be obtained from insurance companies that are duly licensed or authorized to do business in the state of North Carolina and to issue insurance policies for the required limits and coverages. Unless a different standard is authorized by the Owner in writing, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- D. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract.
- E. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- F. Owner, only if specified in this agreement, shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). None Required.
- G. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- H. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's sole option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

I. Contractor shall require:

1. Subcontractors to purchase and maintain workers' compensation, commercial general liability and other insurance coverages required by Contractor where appropriate and applicable for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability, automobile liability, and excess or umbrella insurance policy. Owner, Engineer and other additional insureds shall be covered under Subcontractors' commercial general liability and any umbrella insurance with respect to liabilities arising out of both ongoing and completed operations of Subcontractor(s). Such additional insured coverage shall be subject to the terms of ISO additional insured endorsement forms CG 20 10 (ongoing operations) and CG 20 37 (products-completed operations), or substitute form(s) providing equivalent coverage and utilizing 10/01 as the edition date of the ISO endorsements; and
2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project; and
3. If the Scope of Work to be performed and/or the work site and surrounding area creates a special or high risk exposure to on-site individuals or the public, the Owner reserves the right to require the Contractor to ensure its Subcontractors, Suppliers, or categories of Subcontractor or Supplier, to provide specific insurance with policy limits as follows:

Contractor will be solely responsible for Subcontractors. Only the successful Contractor will be required to provide insurance information as noted in the Contract example, section 12 - Insurance.

- J. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- K. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.

- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, without at least 30 days prior written to Owner ( 10 days for cancellation due to non-payment of premium). Direct Notice of Cancellation endorsement is to be attached to corresponding certificates of insurance. In the event of any such cancellation, non-renewal or material limitation, the Contractor or subcontractor, as applicable, is obligated to replace such insurance within seven (7) days of any such cancellation, non-renewal or material limitation without a gap in coverage and file accordingly such notice with the Owner and other interested parties.
- O. The Work under this Contract shall not commence until the Contractor has verified to the Owner that all required insurance coverage as described herein, have been obtained and verifying Certificates of Insurance have been approved in writing by the Owner. The Owner's review and/or acceptance of certificates of insurance shall neither relieve Contractor of any requirement to provide the specific coverages set forth herein nor shall it constitute a waiver or acknowledgement of satisfaction of the specific insurance coverage requirements set forth in this Contract.
1. The Description of Operations/Locations/Vehicles section in the certificates of insurance should include the City of Raleigh Department/Division, Name of Project or Services, Project Dates of contract.

The Certificate holder address should read:

City of Raleigh  
Post Office Box 590  
Raleigh, NC 27602-0590

#### SC-6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, Automobile Liability, Excess/Umbrella insurance and any other insurance specified within these Supplementary Conditions. Any and all deductibles and Self-insured Retentions (SIRs) in the insurance policies shall be assumed by, and at the sole risk of the Contractor.
- B. *Supplemental Provisions:* The policies of insurance required by this SC-6.03 as supplemented must:
1. include at least the specific coverages required;
  2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
  3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
  4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly

employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable;

5. be primary and noncontributory, evidenced by ISO form CG 20 01 04 13 (Primary and Non-Contributory – Other Insurance condition) endorsement or its equivalent, with respect to the Owner's insurance or self-insurance to the extent of the Contractor's liability hereunder. Any other insurance or self-insurance maintained by the Owner shall be excess of, and non-contributory with the coverage afforded by Contractor's commercial general liability insurance and commercial umbrella insurance, if any;
  6. provide for reinstatement of full coverage after payment of any claim;
  7. state insurers have no right of recovery or subrogation against the Owner, its agents and agencies and shall have no recourse against them for the payment of any premiums or assessments under any form of policy; and
  8. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds*: The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must:
1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in this agreement;
  2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
  3. afford primary and noncontributory coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations); and
  4. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.
- D. *Other Additional Insureds*: If specified herein, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds (in addition to Owner and Engineer) the following:

Refer to Contract, section 12 for COI instructions.

- E. *Workers' Compensation and Employer's Liability*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.

2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
4. Foreign voluntary worker compensation (if applicable).

<b>Workers' Compensation and Related Policies</b>	<b>Policy limits of not less than:</b>
<b>Workers' Compensation</b>	
North Carolina - State	Statutory
<b>Employer's Liability</b>	
Each accident	\$1,000,000
Each employee	\$1,000,000
Policy limit	\$1,000,000

- F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:
1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
  2. damages insured by reasonably available personal injury and advertising liability coverage, and
  3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- G. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy must be written on an Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage.
    - a. Such insurance must be maintained for the period of the applicable statute of repose for any and all claims that may arise from operations of this Contract.
    - b. Contractor shall furnish Owner and each other additional insured (as identified in herein or elsewhere in the Contract) certificates of insurance evidencing continuation of such insurance at final payment and for the period of the applicable statute of limitations and repose.
  2. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in this Contract in accordance with ISO policy form CG 00 01.
    - a. Premises/Operations liability

- b. Underground fault, explosion, and collapse coverage
  - c. Independent Contractor's and Independent Subcontractor's coverage
  - d. Broad form property damage
  - e. Personal injury and advertising coverage
  - f. Cross Liability/Severability of Interest clause
  - g. Employer's Stop Gap Liability endorsement, if applicable
  - i. Amendment of the Pollution Exclusion Endorsement to allow coverage for bodily injury or property damage caused by heat, smoke, or fumes from a hostile fire
  - j. Designated General Aggregate Limit Endorsement, if required in Contract
  - k. Products completed operations including construction defect and contractual liability
  - l. Insurance coverage limits to be on a "per project" basis
3. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
  4. For design professional additional insureds, ISO Endorsement CG 20 32 07 13 "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:
1. Any modification of the standard definition of "insured contract" (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
  2. Any exclusion for water intrusion or water damage.
  3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
  4. Any exclusion of coverage relating to earth subsidence or movement.
  5. Any exclusion for the insured's vicarious liability, strict liability, or statutory liability (other than worker's compensation).
  6. Any limitation or exclusion based on the nature of Contractor's Work.



7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. *Commercial General Liability—Minimum Policy Limits*

<b>Commercial General Liability</b>	<b>Policy limits of not less than:</b>
General Aggregate	\$5,000,000
Products—Completed Operations Aggregate	\$5,000,000
Bodily Injury and Property Damage—Each Occurrence	\$2,000,000
Personal and Advertising Injury	\$2,000,000

J. *Automobile Liability:* Contractor shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle owned, hired or otherwise operated or used by or on behalf of the Contractor or any of its Derivative Parties and as used in the execution of the Work. The automobile liability policy must be written on an occurrence basis.

<b>Automobile Liability</b>	<b>Policy limits of not less than:</b>
<b>Combined Single Limit</b>	
Combined Single Limit (Bodily Injury and Property Damage) (Any/Owned, Hired, and Leased)	\$1,000,000

K. *Umbrella or Excess Liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer’s liability, commercial general liability, and automobile liability insurance described in the Paragraphs above. The coverage afforded must be at least as broad as that of each and every one of the underlying policies using a follows form coverage for all layers and coverage shall remain continuously in effect and without interruption from the date of commencement of construction until the end of the applicable statute of limitations and repose.

<b>Excess or Umbrella Liability</b>	<b>Policy limits of not less than:</b>
Each Occurrence	\$2,000,000
General Aggregate	\$2,000,000

L. *Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements:* Contractor may meet the policy limits specified for employer’s liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy’s policy limits and limits of an umbrella or excess liability policy.

M. *Contractor’s Pollution Liability Insurance:* Contractor shall purchase and maintain a policy that must include Asbestos Legal Liability and Errors and Omissions due to potential environmental hazards.

1. Coverage shall apply to the scope of work described in this Contract including transportation and shall include coverage for bodily injury, property damage, including loss of use of damaged property, clean-up costs, mold, defense and investigative costs. Contractor shall maintain Completed Operations coverage for three (3) years following final acceptance of the project or termination of the Contract.
2. If the insurance policy is written on a claims-made basis, Contractor warrants that continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) following final acceptance of the Work under the Contract is completed or termination of the Contract..
3. If coverage is canceled or non-renewed, and not replaced with another claims made policy form with a retroactive date prior to the Contract effective date or start of work date the Contractor must purchase an extended period coverage for a minimum of five (5) years following final acceptance of the Work or termination of the Contract.. A copy of the claims reporting requirements must be submitted to Owner for review. Pollution Liability shall not contain lead-based paint or asbestos exclusions.

This insurance must be maintained for no less than three years after final completion.

<b>Contractor's Pollution Liability</b>	<b>Policy limits of not less than:</b>
Each Occurrence/Claim	\$3,000,000
General Aggregate	\$3,000,000

- N. *Contractor's Professional Liability Insurance:* If Contractor will provide or furnish professional services under this *Contract*, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance to protect Owner from liability arising out of or resulting from the performance of professional services by Contractor or its Derivative Parties.
1. This insurance must cover negligent acts, errors, or omissions in the performance of professional design or related services by the insured or others for whom the insured is legally liable and shall contain full prior acts coverage.
  2. Coverage shall not include any exclusions or limitations related to a) Scope of professional services; b) Delays in project completion or cost overruns; c) Who is authorized to notify the carrier of a claim or a potential claim; and d) Mold, fungus, asbestos, pollutants or hazardous substances.
  3. The insurance must be maintained continuously throughout the duration of the Contract and through the applicable statute of limitations and repose.
  4. Claims made coverage is permitted providing the retroactive date on the policy pre-dates the commencement of furnishing services on the Project.

<b>Contractor's Professional Liability</b>	<b>Policy limits of not less than:</b>
Each Claim	\$1,000,000
Annual Aggregate	\$3,000,000

- O. *Railroad Protective Liability Insurance*: Prior to commencing any Work within 50 feet of railroad-owned and controlled property, Contractor shall (1) endorse its commercial general liability policy with ISO CG 24 17, removing the contractual liability exclusion for work within 50 feet of a railroad, (2) purchase and maintain railroad protective liability insurance from an insurer or directly from the subject railroad(s) meeting their specific requirements, (3) furnish a copy of the endorsement to Owner, and (4) submit a copy of the railroad protective policy and other railroad-required documentation to the railroad, and notify Owner of such submittal.

<b>Railroad Protective Liability Insurance</b>	<b>Policy limits of not less than:</b>
Each Claim	\$6,000,000
Aggregate	\$6,000,000

- P. *Unmanned Aerial Vehicle Liability Insurance*: If Contractor or its Subcontractors uses unmanned aerial vehicles (UAV—commonly referred to as drones) at the Site or in support of any aspect of the Work, Contractor shall obtain UAV liability insurance in the amounts stated; name Owner, Engineer, and all individuals and entities identified herein as additional insureds; and provide a certificate to Owner confirming Contractor's compliance with this requirement.

1. Such insurance will provide coverage for property damage, bodily injury or death, and invasion of privacy. The operator of the aircraft and their insurer(s) must hold the Owner and all additional insureds harmless and waive subrogation with respect to damage to the aircraft. If the aircraft is to be used to perform lifts at the Site, a "slung cargo" endorsement must be included to cover the full replacement value of any equipment being lifted.

<b>Unmanned Aerial Vehicle Liability Insurance</b>	<b>Policy limits of not less than:</b>
Each Claim	\$1,000,000
General Aggregate	\$1,000,000

- Q. *Other Required Insurance*: n/a

#### SC-6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: If applicable, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in this Section or required by Laws and Regulations) and name the Owner a Loss Payee on the insurance coverage(s).
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each Owner owned structure, building, or facility in which any part of the Work will occur, or to

which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.

- C. *Property Insurance for Substantially Complete Facilities:* Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this SC-6.04, it may do so at Contractor's sole expense.
- F. *Builder's Risk Requirements:* The builder's risk insurance must:
  - 1. be written on a builder's risk "all risk" policy form that at a minimum includes insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment stored and in transit, and must not exclude the coverage of the following risks:

Blasting and explosion, fire; windstorm; hail; flood; earthquake, volcanic activity, and other earth movement; lightning; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; collapse of or structural injury to any structure due to the Contractor's operations; damage to underground structures, pipes or conduits; debris removal; demolition occasioned by enforcement of Laws and Regulations; and water damage (other than that caused by flood).

    - a. The builder's all-risk coverage shall not contain an exclusion for resulting damage caused by faulty workmanship, design or materials.
    - b. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake, volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk

policies, by endorsement or otherwise, such insurance will be provided through other insurance policies acceptable to Owner and Contractor.

2. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
3. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of Contractors, Engineers, and Architects).
4. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
5. extend to cover damage or loss to insured property while in transit.
6. allow for the waiver of the insurer's subrogation rights, as set forth in this Contract.
7. allow for partial occupancy or use by Owner by endorsement, and without cancellation or lapse of coverage.
8. include performance/hot testing and start-up, if applicable.
9. be maintained in effect until the Work is complete, or until written confirmation of Owner's procurement of property insurance following Substantial Completion, whichever occurs first.
10. include as named insureds the Owner, Contractor, Subcontractors (of every tier), all lenders with security interests in the Site or the Project, and any other individuals or entities required by this Contract to be insured under such builder's risk policy. For purposes of SC-6.04, SC-6.05, and SC-6.06 of this and all other corresponding Supplementary Conditions, the parties required to be insured will be referred to collectively as "insureds." In addition to Owner, Contractor, and Subcontractors of every tier, include as insureds the following:  
  
n/a
11. if applicable, include, in addition to the Contract Price amount, the value of the following equipment and materials to be installed by the Contractor but furnished by the Owner or third parties:  
  
n/a

### G. *Installation Floater*

n/a

1. Contractor shall provide and maintain installation floater insurance on a broad form or “all risk” policy providing coverage for materials, supplies, machinery, fixtures, and equipment that will be incorporated into the Work (“Covered Property”). Coverage under the Contractor’s installation floater will include loss from covered “all risk” causes (perils) to Covered Property:
  - a. of the Contractor, and Covered Property of others that is in Contractor’s care, custody, and control;
  - b. while in transit to the Site, including while at temporary storage sites;
  - c. while at the Site awaiting and during installation, erection, and testing;
  - d. continuing at least until the installation or erection of the Covered Property is completed, and the Work into which it is incorporated is accepted by Owner.
2. The installation floater coverage cannot be contingent on an external cause or risk, or limited to property for which the Contractor is legally liable.
3. The installation floater coverage will be in an amount sufficient to protect Contractor’s interest in the Covered Property. The Contractor will be solely responsible for any deductible carried under this coverage.
4. This policy will include a waiver of subrogation applicable to Owner, Contractor, Engineer, all Subcontractors, and the officers, directors, partners, employees, agents and other consultants and Subcontractors of any of them.

H. *Builder’s Risk and Other Property Insurance Deductibles:* The purchaser of any required builder’s risk, installation floater, or other property insurance will be responsible for costs not covered because of the application of a policy deductible.

1. The builder’s risk policy (or if applicable the installation floater) will be subject to a deductible amount of no more than **\$10,000** for direct physical loss in any one occurrence.

### SC-6.05 *Property Losses; Subrogation/Waiver of Rights*

- A. The builder’s risk insurance policy purchased and maintained in accordance with SC-6.04 (or an installation floater policy if new construction is limited and authorized by the Owner), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.
  1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by,

arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.

2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03 as modified by these Supplemental Conditions, or after final payment pursuant to Paragraph 15.06 as modified by these Supplemental Conditions, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this SC-6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

#### SC-6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by SC-6.04 will be adjusted and settled with the named insured that

purchased the policy. Such named insured shall act as fiduciary for the other insureds and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after receipt of notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by SC-6.04 shall maintain such proceeds in a segregated account and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

## **ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES**

### *7.02 Supervision and Superintendence*

SC-7.02 Add the following new paragraph immediately after Paragraph 7.02.B:

C. Contractor's On-Site Supervision: For pipeline Contractors who have more than two construction crews performing work under one contract, a general superintendent shall be assigned to the Project Site to supervise all construction crews on site. The general superintendent shall be responsible for addressing any construction related issues from the Owner, the Engineer, and/or the Department of Transportation having jurisdiction.

### *7.03 Labor; Working Hours*

SC-7.03 Add the following new paragraphs immediately after Paragraph 7.03.C:

- D. Regular Working Hours: [8:00] am to [5:00] pm, Eastern Standard Time. No overtime work permitted.
- E. Overtime Work: n/a
- F. Paragraph 7.03.C will not prevent the Contractor from working outside the regular working hours provided the work will not require the inspector to be present. Such work may include start up, clean up, seeding, painting (after the base surface has been approved by the inspector), and similar items. Contractor shall submit a written request to the Owner one (1) working day prior to the scheduled Work.
- G. Contractor shall not be charged for RPR's time for Work specifically identified by the Contract Documents to be performed outside the above Work time or on weekends.

### *7.05 "Or Equals"*



SC-7.05 Add the following new paragraph immediately after Paragraph 7.05.E:

- F. Requirements for “or equals” shall be submitted prior to bidding. Reference Section 00100 (Advertisement for Bids) and Section 00200, Article 11 (Instructions to Bidders) for submission deadlines of requirements for “or equals”.

7.07 *Concerning Subcontractors and Suppliers*

SC-7.07.C Add the following sentences to the end of Paragraph 7.07.C:

1. Bidder shall indicate subcontractors as required on the Bid Form.
2. Bidder shall indicate Minority Business Participation on the attachment to the Bid Forms. Low Bidder shall be required to submit the followings Affidavits as included in the City of Raleigh Business Assistance Program Guidelines:
  - a. Affidavit C, Portion of the Work to be Performed by Minority Firms.
  - b. Affidavit D, Good Faith Efforts
3. Contractor whose Bid is accepted shall not substitute any person as Subcontractor in the place of the Subcontractor listed in the Bid, except:
  - a. If the listed Subcontractor’s bid is later determined by the Contractor to be non-responsible or non-responsive, or the listed Subcontractor refuses to enter into a contract for the complete performance of the bid work;
  - b. or with the approval of the City for good cause shown by the Contractor.

SC-7.07.K Delete Paragraph 7.07.K in its entirety and insert the following in its place:

- K. All work performed for Contractor by a Subcontractor shall be pursuant to an appropriate agreement between the Contractor and Subcontractor. The Subcontractor shall not commence work until the Contractor has obtained all insurance as required by Paragraphs 6.02 through 6.03 inclusive as amended by these Supplementary Conditions.

SC-7.07.N Add the following new paragraph immediately after Paragraph 7.07.M:

- N. Contractor shall not award work valued at more than [fifty (50%)] percent of the Contract Price to Subcontractor(s). Contractor shall perform at least [fifty (50%)] percent of the labor with own forces, unless prior written approval is provided by the Owner.

7.08 *Patent Fees and Royalties*

SC-7.08.B In the first line, insert “North Carolina” between “by” and “Laws”.

SC-7.08.B Add the following language at the end of Paragraph 7.08.B:

The parties understand and acknowledge that no North Carolina case, statute, or Constitutional provision authorizes a local government to indemnify a Contractor and that this contract provision may be unenforceable.

SC-7.08.C Delete Paragraph 7.08.C in its entirety and insert the following in its place:

- C. Contractor's indemnity, defense and hold harmless obligations to the Indemnified Parties under SC-7.18 shall apply as to any and all Losses, liabilities, damages, expenses and costs caused by, arising out of, resulting from, or in connection with any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents when the Fault of the Contractor or its Derivative Parties is a proximate cause of the Losses, liabilities, damages, expenses and costs so indemnified. Provided, however, nothing herein shall require the Contractor to indemnify the Indemnified Parties against any such Losses, liabilities, damages, expenses and costs arising out of, resulting from, or in connection with any negligent acts of one or more of the Indemnified Parties.

#### 7.09 *Permits*

SC-7.09.A Amend the last sentence of Paragraph 7.09.A to read as follows:

Contractor shall pay all charges of utility owners for connections for providing permanent service to the Work.

SC-7.09.B Add the following new paragraphs after Paragraph 7.09.A:

- B. Owner obtained encroachment agreements and permits are included as part of the Contract Documents. The encroachment agreements and permits are attached as an appendix to the specifications or project manual. This Paragraph does not relieve Contractor of responsibility to comply with applicable Laws and Regulations as stated in Paragraph 7.11.
- C. Contractor shall be responsible for compliance with the terms of the encroachment agreements and permits issued by Federal/State/Local regulatory agencies. Compliance with the terms listed in the encroachment agreements and permits shall be at no additional cost to the Owner. This shall include generating and submitting any reports that may be required as a condition of the encroachment agreements and permits. All costs shall be included in the bid prices of applicable items.

#### 7.10 *Taxes*

SC-7.10 Add the following new paragraphs after Paragraph 7.10.A:

- B. Procedures for reporting sales tax are included in Section 00805.

## 7.11 *Laws and Regulations*

SC-7.11.B Delete Paragraph 7.11.B in its entirety and insert the following in its place:

- B. If Contractor observes that the Specifications or Drawings are at variance with any Laws or Regulations, Contractor shall give Engineer prompt written notice thereof. If Contractor performs any Work knowing it to be contrary to such Laws or Regulations, and without such notice to Engineer, Contractor shall bear all costs arising therefrom. Contractor shall, at all times, observe and comply with and shall cause its Derivative Parties to observe and comply with all such existing Laws or Regulations. Further, Contractor's indemnity, defense and hold harmless obligations to the Indemnified Parties under SC-7.18 shall apply as to any and all Losses, liabilities, damages, expenses and costs caused by, arising out of, resulting from, or in connection with any claim, civil penalty, fine or liability arising from or based on the violation of any such Law or Regulations by the Contractor or its Derivative Parties.

SC-7.11 Add the following new paragraphs after Paragraph 7.11.C:

- D. Contractor shall be responsible for conforming to the requirements of the approved sedimentation control plan, the rules and regulations of the Erosion Control Laws of the State of North Carolina, specifically the Sedimentation Pollution Control Act of 1973 (G.S. 113A) as amended, and the local jurisdiction where the Project is located as it relates to land disturbing activities undertaken by Contractor. Contractor shall be responsible to Owner for any fines imposed on Owner as a result of Contractor's failure to comply with the above as it is further described in the Erosion Control Section of the Specifications.
- E. Contractor shall be responsible for conforming to the requirements of the NC Department of Transportation Encroachment Agreement, if attached to the Contract Documents.
- F. Should the Contractor cause the Owner to receive a Notice of Violation from a governmental agency, Contractor shall pay costs associated with Notice of Violation within ten (10) days of receipt of written notification. Costs shall include, but not be limited to:
  - 1. Fines imposed on the Owner by the agency.
  - 2. Required legal newspaper publications concerning violation.
  - 3. Required mailings to customers concerning notification of violation.
  - 4. Administrative and engineering costs associated with resolving the Notice of Violation.
- G. Notice of Violation may include, but not be limited to, the following problems:
  - 1. Sewage spill.
  - 2. Inadequate erosion control measures.

- 3 Equipment failure during the warranty period.
- H. In the event of a sewage spill during construction, Contractor shall take the following steps as a minimum:
1. Take immediate action to contain the spill.
  2. Notify the Owner and Engineer within 30 minutes of realizing a spill has occurred.
  3. Clean up the spill as directed by the Owner. Contractor shall bear all costs associated with the cleanup.

7.12 *Record Documents*

SC-7.12 Add the following new paragraph after Paragraph 7.12.A:

- B. Record Documents shall be updated daily. Should the Owner or Engineer determine that the Record Documents are not being properly maintained, approval of future payment requests shall be withheld.

7.13 *Safety and Protection*

SC-7.13.A Add the following new subparagraph after Paragraph 7.13.A:

1. When tasks (operating valves, lock out – tag out, etc.) must be accomplished by City staff to allow Contractor to perform or continue its Work, Contractor shall independently verify and confirm the performance of the tasks prior to performing the impacted Work.

SC-7.13.D Delete Paragraph 7.13.D its entirety and insert the following in its place:

- D. Contractor shall be responsible for remedying damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 as follows:
1. To the fullest extent allowed by Laws and Regulations, Contractor shall remedy at its own expense any and all damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 arising out of, or resulting from the sole negligence of the Contractor, the Contractor's agents, the Contractor's employees, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
  2. In matters other than those covered by subsection SC-7.18.A, and to the fullest extent allowed by Laws and Regulations, Contractor shall remedy at its own expense any and all damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 arising out of, resulting from, or in connection with the execution of the Work provided for in this Contract when the Fault of the Contractor or its Derivative Parties is a proximate cause of such damage, injury, or loss. For the purposes of this section, the terms "Fault" and

“Derivative Parties” shall have the same meaning as that set forth in SC-7.18.E.

7.16 *Submittals*

SC-7.16D.2 In the first sentence, replace “two” with “three”.

SC-7.16 Add the following new paragraph immediately after Paragraph 7.16.F:

- G. All materials or equipment delivered to the Site shall be accompanied by certificates, signed by an authorized officer of the supplier, and notarized guaranteeing that the materials or equipment conform to specification requirements. Such certificates shall be immediately turned over to the Engineer. Materials or equipment delivered to the Site without such certificates will be subject to rejection.

7.18 *Indemnification*

SC-7.18 Delete Paragraphs 7.18.A and 7.18.B in their entirety and insert the following in their place:

- A. To the fullest extent allowed by Laws and Regulations, Contractor shall indemnify, defend, and hold harmless the Owner, its officers, officials, employees, agents, or indemnities (collectively called “Indemnified Parties”) from and against those Losses, liabilities, damages, and costs proximately caused by, arising out of, or resulting from the sole negligence of the Contractor, the Contractor’s agents, or the Contractor’s employees.
- B. In matters other than those covered by subsection 7.18A, above, and to the fullest extent allowed by Laws and Regulations, Contractor shall indemnify, defend, and hold harmless the Indemnified Parties from and against those Losses, liabilities, damages, and costs caused by, arising out of, resulting from, or in connection with the execution of the Work provided for in this Contract when the Fault of the Contractor or its Derivative Parties is a proximate cause of the Loss, liability, damage, or expense indemnified.
- C. Costs and expenses shall include attorneys’ fees, litigation or arbitration expenses, or court costs actually incurred by the Indemnified Parties to defend against third-party claims alleged in any court, tribunal, or alternative dispute resolution procedure required of any of the Indemnified Parties by Laws and Regulations or by contract, only if the Fault of the Contractor or its Derivative Parties is a proximate cause of the attorney’s fees, litigation or arbitration expenses, or court costs to be indemnified.
- D. The Contractor’s duty to indemnify, defend, and hold harmless described hereinabove shall survive the termination or expiration of this Contract.
- E. Definitions:
  - 1. For the purposes of SC-7.18, the term “Fault” shall mean any breach of contract; negligent, reckless, or intentional act or omission constituting a tort

under applicable statutes or common law; or violation of applicable statutes or regulations.

2. For the purposes of SC-7.18, the term "Loss" or "Losses" shall include, but not be limited to, fines, penalties, and/or judgments issued or levied by any local, state, or federal governmental entity.
3. For the purposes of SC-7.18, the term "Derivative Parties" shall mean any of the Contractor's Subcontractors, agents, employees, or other persons or entities for which the Contractor may be liable or responsible as a result of any statutory, tort, or contractual duty.

## **ARTICLE 8 - OTHER WORK AT THE SITE**

### 8.01 *Other Work*

SC-8.01.E Amend the first sentence of Paragraph 8.01.E to read as follows:

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and within seven days report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work.

SC-8.01 Add the following new paragraphs immediately after Paragraph 8.01.F.

- G. Prime contracts will be let in connection with the Project as outlined in Specification Section - Summary of Work.
- H. The Owner, Engineer, and Engineer's consultants shall not be liable to Contractor for any claims, costs, losses or damages incurred or sustained by Contractor on or in connection with any other project or anticipated project.

### 8.02 *Coordination*

SC-8.02 Add the following new Paragraph 8.02.C immediately after Paragraph 8.02.B:

- C. If Owner intends to contract with others for the performance of other work at or adjacent to the Site:

n/a

### 8.03 *Legal Relationships*

SC-8.03 Delete Paragraph 8.03.C in its entirety and insert the following in its place:

- C. If Contractor or its Derivative Parties damage(s), delay(s), disrupt(s), or interfere(s) with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's or its Derivative Parties' failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's or its Derivative Parties' action(s), inaction(s), or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor or Owner, then Contractor shall promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction. In addition, the Contractor's indemnity, defense and hold harmless obligations to the Indemnified Parties under SC-7.18 shall apply as to any and all Losses, liabilities, damages, expenses and costs arising out of, resulting from, or in connection with any and all claims brought by any such other contractor or utility owner against one or more of the Indemnified Parties that arise out of or relate to any such damage, delay, disruption or interference when the Fault of the Contractor or its Derivative Parties is a proximate cause of the Losses, liabilities, damages, expenses and costs so indemnified. Provided, however, nothing herein shall require the Contractor to indemnify the Indemnified Parties against any such claims arising out of, resulting from, or in connection with any negligent acts of one or more of the Indemnified Parties.

## **ARTICLE 9 - OWNER'S RESPONSIBILITIES**

9.11 *Evidence of Financial Arrangements*

SC-9.11 Add the following new paragraph immediately after Paragraph 9.11.A:

- B. On request of Contractor, prior to the execution of any Change Order involving a significant increase in the Contract Price, Owner shall furnish to Contractor reasonable evidence that adequate financial arrangements have been made by Owner to enable Owner to fulfill the increased financial obligations to be undertaken by Owner as a result of such Change Order.

## **ARTICLE 10 - ENGINEER'S STATUS DURING CONSTRUCTION**

10.01 *Owner's Representative*

SC-10.01.A Delete Paragraph 10.01.A in its entirety and replace with the following:

- A. Engineer will be Owner's representative during the construction period and Engineer's instructions shall be followed promptly and efficiently.

10.03 *Resident Project Representative*

SC-10.03.A Add the following new subparagraphs immediately following Paragraph 10.03.A:

1. The Resident Project Representative (RPR) will serve as the Engineer's liaison with the Contractor, working principally through the Contractor's superintendent to assist the Contractor in understanding the intent of the Contract Documents.

2. The RPR shall conduct on-site observations of the Work in progress to confirm that the Work is proceeding in accordance with the Contract Documents. They will verify that tests, equipment and systems start-ups and operating and maintenance instructions are conducted as required by the Contract Documents. They will have the authority to disapprove or reject defective Work in accordance with Article 14.
3. The RPR will be Engineer's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:
  - a. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
  - b. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.
  - c. *Liaison*
    - i) Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
    - ii) Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
    - iii) Assist in obtaining from Owner additional details or information, when required for Contractor's proper execution of the Work.
  - d. *Review of Work; Defective Work*
    - i) Conduct on-Site observations of the Work to assist Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.
    - ii) Observe whether any Work in place appears to be defective.
    - iii) Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.
  - e. *Inspections and Tests*



- i) Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.
    - ii) Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.
  - f. *Payment Requests*: Review Applications for Payment with Contractor.
  - g. *Completion*
    - i) Participate in Engineer's visits regarding Substantial Completion.
    - ii) Assist in the preparation of a punch list of items to be completed or corrected.
    - iii) Participate in Engineer's visits to the Site in the company of Owner and Contractor regarding completion of the Work and assist in preparation of a final punch list of items to be completed or corrected by Contractor.
    - iv) Observe whether items on the final punch list have been completed or corrected.
- 4. Except upon written instructions of the Engineer, the RPR or Owner's field staff shall not have authority to:
  - a. Authorize any deviation from the Contract Documents or approve any substitute materials or equipment (including "or-equal" items).
  - b. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
  - c. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
  - d. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.
  - e. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
  - f. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
  - g. Authorize Owner to occupy the Project in whole or in part.

- h. Supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.
  - i. Be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
  - j. Be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
5. Any decision made by RPR or Owner's field staff in good faith either to exercise or not exercise such authority or responsibility, or the undertaking, exercise, or performance of any authority or responsibility by RPR or Owner's field staff, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by RPR or Owner's field staff to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
  6. RPR's or Owner's field staff's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with, the Contract Documents.

SC-10.03.B Add the following new subparagraph immediately following Paragraph 10.03.B:

1. When the Owner assigns City field staff to monitor the project, such staff's limitations shall be as described in SC-10.03.A.4, SC-10.03.A.5 and SC-10.03.A.6.

## **ARTICLE 11 - CHANGES TO THE CONTRACT**

### **11.07            *Change of Contract Price***

SC-11.07.B.2 Delete this subparagraph in its entirety and replace with the following:

2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (with allowances for overhead and profit in accordance with Paragraph 11.07.C.2); or"

11.08 *Change of Contract Times*

SC-11.08 Add the following paragraph after Paragraph 11.08.B:

- C. Time Extension: Contract time extensions for weather delays do not entitle Contractor to "extended overhead" recovery.

**ARTICLE 12 - CLAIMS**

No Supplementary Conditions in this Article.

**ARTICLE 13 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

13.01 *Cost of the Work*

SC-13.01.B.1 Delete Paragraph 13.01.B.1 in its entirety and replace with the following:

Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Labor will be based on direct labor cost, Contractor to provide certified payroll upon request. No claims for extra cost shall be considered based on an escalation of labor costs throughout the period of the Contract.

SC-13.01.B.2 Add the following language at the end of the Paragraph:

No claims for extra cost shall be considered based on an escalation of material costs throughout the period of the Contract.

SC-13.01.B.3 Delete the second sentence "If required...be acceptable."

SC-13.01.B.4 Delete in its entirety.

SC-13.01.B.5.a Delete Paragraph in its entirety.

SC-13.01.B.5.c Delete Paragraph 13.01.B.5.c in its entirety and insert the following in its place:

c. Construction Equipment and Machinery:

1. Rentals of all construction equipment and machinery, and the parts thereof in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment,

machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

2. Full rental cost for rented, leased, and/or owned equipment shall not exceed rates listed in the current version of Rental Rate Blue Book for Construction Equipment (Blue Book). If rental rates for the equipment being used for the Work are not listed in the Blue Book, the Contractor will receive the prevailing rental rates being paid for such equipment in the area where the Project is located. Computed durations will be based upon the Work completed. Computed rates will include all operating costs; costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than \$1,000 will be considered small tools. The Engineer/Owner reserves the right to request four rental quotes as backup.
3. The hours of operation shall be based upon actual equipment usage to the nearest full hour, as recorded by the Engineer.

<u>Usage</u>	<u>Blue Book Payment Category</u>
Less than 8 hours	Hourly Rate
8 or more hours but less than 4 days	Daily Rate
4 or more days but less than 16 days	Weekly Rate
16 or more days	Monthly Rate

SC-13.01.B.5.d Add the following language at the end of the Paragraph:

However, reimbursable sales and use taxes paid to the State of North Carolina or to local governments in North Carolina shall be included or excluded from the Cost of the Work as described in Section 00805.

SC-13.01.B.5.f Delete Paragraph in its entirety.

SC-13.01.B.5.g Delete Paragraph in its entirety.

SC-13.01.B.5.h Delete Paragraph in its entirety.

SC-13.01.C.1 Add the following language at the end of the Paragraph.

Project Management will not be included in the Cost of the Work.

13.03 *Unit Price Work*

SC-13.03.E.1.a Delete Paragraph 13.03.E.1.a in its entirety and insert the following in its place:

- a. The extended Bid price of a particular item of Unit Price Work (excluding rock excavation and undercut) amounts to five (5) percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than twenty-five (25) percent from the estimated quantity of such item indicated in the Agreement at the time of Contract formation; and

#### **ARTICLE 14 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK**

14.02 *Tests, Inspections, and Approvals*

SC-14.02.B Delete Paragraph 14.02.B in its entirety and insert the following in its place:

- B. Owner shall employ and pay for inspections and testing services specifically noted as such in the Contract. All others required shall be the responsibility of the Contractor.

SC-14.02.C Delete Paragraph 14.02.C in its entirety and insert the following in its place:

- C. If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any Work to be specifically inspected, tested, or approved by some public body, Contractor shall assume full responsibility therefore, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection, testing or approval.

SC-14.02.G Add the following paragraph(s) immediately following Paragraph 14.02.F:

- G. Owner reserves the right to independently perform at its own expense, laboratory tests on random samples of material or performance tests on equipment delivered to the Site. These tests if made will be conducted in accordance with the appropriate referenced standards or Specification requirements. The entire shipment represented by a given sample, samples or piece of equipment may be rejected on the basis of the failure of samples or pieces of equipment to meet specified test requirements. All rejected materials or equipment shall be removed from the Site, whether stored or installed in the Work, and the required replacement shall be made, all at no additional cost to the Owner.

14.03 *Defective Work*

SC-14.03.G Add a new paragraph after Paragraph 14.03.F:

- G. At any time during the progress of the Work and up to the date of final acceptance, the Engineer shall have the right to reject any Work which does not conform to the requirements of the Contract Documents, even though such Work has been previously inspected and paid for. Any omissions or failure on the part of the Engineer to disapprove or reject any Work or materials at the time of

inspection shall not be construed as an acceptance of any defective Work or materials.

14.06 *Owner May Stop the Work*

SC-14.06.A Add the following language to the first sentence of Paragraph 14.06.A after:

".....will conform to the Contract Documents," add "or if the Work interferes with the operation of the existing facility", and then continue "then Owner may order..."

## **ARTICLE 15 - PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

15.01 *Progress Payments*

SC-15.01.A Add the following paragraph immediately following Paragraph 15.01.A:

1. The Contractor shall submit for the Engineer's approval, a complete breakdown of all Lump Sum Items in the Bid. This breakdown, modified as directed by the Engineer, will be used as a basis for preparing estimates and establishing progress payments.

SC-15.01.B.4 Delete Subparagraph 15.01.B.4 in its entirety and replace with the following:

4. Progress payment request shall include the percentage of the total amount of the Contract which has been completed from the start-up of the Project to and including the last day of the preceding month, or other mutually agreed upon day of the month accompanied by such data and supporting evidence as Owner or Engineer may require.

SC-15.01.B. Add the following new subparagraphs after Subparagraph 15.01.B.4:

5. Forms shall be prepared by the Contractor and submitted to the Engineer for approval. Forms to be used are included in Section 00620 and will be supplied by the Engineer.
6. At the option of the Owner, partial payment up to the estimated value, less retainage, may be allowed for any materials and equipment not incorporated in the Work, pursuant to the following conditions:
  - a. Major equipment items stored off site shall be stored in a bonded warehouse and properly maintained during storage.
  - b. Equipment or materials stored on the Site shall be properly stored, protected and maintained.
  - c. For any partial payment the Contractor shall submit, with the monthly progress payment from each material or equipment manufacturer, bills or invoices indicating actual material cost.
  - d. Contractor shall submit evidence that payment has been made for materials or equipment stored and for which the Engineer has authorized

partial payment and previous progress payments, prior to submission of the next monthly payment request.

7. The Owner will retain five percent (5%) of the amount of each such estimate until Work covered by the Contract is 50% complete. When 50% of the Work of the original Contract has been completed and in the opinion of the Owner the Contractor continues to perform satisfactorily and nonconforming Work identified in writing prior to that time by the Engineer or Owner has been corrected by the Contractor and accepted by the Owner, the Owner with written consent of surety will adjust future partial payments so that two and one-half percent (2-1/2%) of the original Contract Price is retained.
8. The Project shall be deemed 50% complete when the Contractor's gross project invoices, excluding the value of materials stored off-site, equals or exceeds 50% of the original value of the Contract, except the value of materials stored on-site shall not exceed 20% of the Contractor's gross invoices for the purpose of determining whether the project is 50% complete.
9. If the Owner determines it is appropriate to reduce retainage, the method used for such adjustment shall be to fix retainage at two and one-half percent (2-1/2%) of the original Contract amount (when the Work is 50% complete) and to pay all subsequent Partial Payment Requests to the full approved amount. The intent of such an adjustment is to gradually reduce retainage to two and one-half percent (2-1/2%) of the original Contract amount when the Work is 100% complete. Following 50% completion of the Project, the Owner may also withhold additional retainage from any subsequent periodic payment, not to exceed five percent (5%), in order to allow the Owner to retain two and one-half percent (2-1/2%) total retainage through the completion of the Project.
10. If the Owner determines the Contractor's performance is unsatisfactory, the Owner may reinstate retainage for each subsequent periodic payment application up to a maximum amount of five (5) percent of the original Contract amount.
11. Within 60 days after the submission of a final pay application, the Owner with written consent of the surety shall release to the Contractor all retainage on payments held by the Owner if (1) the Owner receives a certificate of substantial completion from the Engineer, or (2) the Owner receives beneficial occupancy or use of the Project. However, the Owner may retain sufficient funds to secure completion of the Project or corrections on any Work. If the Owner retains funds, the amount retained shall not be more than 2.5 times the Engineer's estimated value of the Work to be completed or corrected. Any reduction in the amount of the retainage on payments shall be with the written consent of the Contractor's surety.
12. Retainer provisions contained in Contractor's subcontracts may not exceed the terms and conditions for retainage provided herein. Contractor is further required to satisfy the retainage provisions of N.C.G.S. 143-134.1(b2) with regard to subcontracts for early finishing trades (structural steel, piling, caisson, and demolition) and to coordinate the release of retainage for such

trades from the retainage held by the Owner from the Contractor pursuant to statute.

13. Nothing shall prevent the Owner from withholding payment to the Contractor in addition to the amounts identified herein for unsatisfactory job progress, defective construction not remedied, disputed work, or third-party claims filed against the Owner or reasonable evidence that a third-party claim will be filed.

SC-15.01.C.6 Add the following new subparagraphs after Subparagraph 15.01.C.6.e:

- f. Sedimentation and erosion control are determined to be unsatisfactory or unacceptable. A deduction of up to 10% of the payment amount for bid items that include sedimentation and erosion control installed during the payment period may be withheld in order to ensure remediation of the unsatisfactory or unacceptable work. Upon remediation, Contractor may receive payment for the deduction in subsequent Application for Payment.
- g. Seeding and mulching are determined to be unsatisfactory or unacceptable. A deduction of up to 20% of the payment amount for bid items that include seeding and mulching installed during the payment period may be withheld in order to ensure remediation of the unsatisfactory or unacceptable work. Upon remediation, Contractor may receive payment for the deduction in subsequent Application for Payment.
- h. Record Documents are not maintained satisfactorily and in accordance with the Contract Documents. Payment requests shall not be approved until the deficiencies are satisfactorily corrected.

SC-15.01.D.1 Delete Paragraph 15.01.D.1 in its entirety and insert the following in its place:

1. Upon receipt from Engineer of an Application for Payment bearing Engineer's recommendation of payment, Owner shall set off against the amount recommended by Engineer any sums to which Owner is entitled pursuant to Sec. 15.01.E of the General Conditions and shall then approve the Application for Payment. Owner shall tender the resulting balance due to Contractor within thirty (30) days of Owner's approval of the Application for Payment

15.03 *Substantial Completion*

SC-15.03 Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, will be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under this Article 15.

15.06 *Final Payment*

SC-15.06.E Delete Paragraph 15.06.E in its entirety and insert the following in its place:



*Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment bearing Engineer's recommendation of payment, Engineer's notice of acceptability, and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled pursuant to Sec. 15.01.E of the General Conditions, and shall then approve the final Application for Payment. Owner shall tender the resulting balance due to Contractor within thirty (30) days of Owner's approval of the final Application for Payment.

## **ARTICLE 16 - SUSPENSION OF WORK AND TERMINATION**

16.01 *Owner May Suspend Work*

SC-16.01 Add the following new paragraph immediately after Paragraph 16.01A:

- B. Should the Owner suspend Work due to unsafe Work conducted by the Contractor, the Contractor shall not be allowed any adjustment in Contract Price or extension of Contract Time attributed to this delay.

16.02 *Owner May Terminate for Cause*

SC-16.02.A.3 Add the following after "jurisdiction":

"(including those governing employee safety)"

SC-16.04.A Amend the first sentence of paragraph 16.04.A as follows:

Strike out the phrase "Owner fails for 30 days" and replace with "Owner fails for 45 days after Approval by Owner".

SC-16.04.B Amend the first sentence of paragraph 16.04.B as follows:

Strike out the phrase "Owner has failed for 30 days" and replace with "Owner has failed for 45 days after Approval by Owner".

## **ARTICLE 17 - FINAL RESOLUTION OF DISPUTES**

SC-17.01.B Delete in its entirety and replace with the following:

- B. Either Owner or Contractor may request mediation of any claim submitted to Engineer for a decision under Article 12 - Claims before such decision becomes final and binding.

SC-17.01 Add the following new paragraphs after SC-17.01.B:

- C. In accordance with GS 143-128(f), any claim, dispute or other matter in question (involving greater than \$15,000) arising out of or related to this Agreement shall be subject to mediation as a condition precedent to the institution of legal or

equitable proceeding by either party. The dispute resolution process adopted by the N.C. State Building Commission shall be followed. The process entitled "Rules Implementing Mediated Settlement Conferences in North Carolina Construction Projects" are included in Section 00810.

- D. All matters relating to this Contract shall be governed by the laws of the State of North Carolina, without regard to its choice of law provisions, and venue for any action relating to this Contract shall be Wake County Civil Superior Court or the United States District Court for the Eastern District of North Carolina, Western Division.

## **ARTICLE 18 - MISCELLANEOUS**

### 18.01 *Giving Notice*

SC-18.01.A.3 Delete in its entirety and replace with the following:

- 3. by e-mail to the recipient, with the words "Formal Notice" in the e-mail's subject line.

SC-18.01 Add the following new paragraph after Paragraph 18.01.A:

- B. No oral statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of this Contract. Any notice by a party to this Contract to another party or parties to this Contract relative to any part of this Contract shall be in writing.

### 18.07 *Controlling Law*

SC-18.07.A Delete in its entirety and replace with the following:

- A. All matters relating to this Contract shall be governed by the laws of the State of North Carolina, without regard to its choice of law provisions, and venue for any action relating to this Contract shall be Wake County Civil Superior Court or the United States District Court for the Eastern District of North Carolina, Western Division.

END OF SECTION

**BID FORM**

PROJECT:

**ADA Improvements  
Raleigh, North Carolina**

- One Exchange Plaza  
1 Exchange Plaza, Raleigh NC 27601
- Raleigh Municipal Building  
222 W. Hargett Street, Raleigh NC 27601
- Raleigh Pathways Center  
900 S. Wilmington Street, Raleigh NC 27601

CITY BID NO.: [Number]

BID FROM: \_\_\_\_\_

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**ARTICLE 1 – BID RECIPIENT**

1.01 This Bid is submitted to:

City of Raleigh  
Engineering Services Department  
Facilities and Operations Division  
Attn: Echo Swanzey

222 West Hargett Street, Room 605  
Raleigh, North Carolina 27601

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS**

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 120 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

**ARTICLE 3 – BIDDER’S REPRESENTATIONS**

3.01 In submitting this bid, bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

- No. \_\_\_\_\_, dated \_\_\_\_\_
- No. \_\_\_\_\_, dated \_\_\_\_\_
- No. \_\_\_\_\_, dated \_\_\_\_\_
- No. \_\_\_\_\_, dated \_\_\_\_\_
- No. \_\_\_\_\_, dated \_\_\_\_\_

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in Supplemental Conditions - 5.02 as containing reliable Technical Data, and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in SC-5.06 as containing reliable Technical Data.

E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific sequences of construction expressly required by the Bidding Documents; and (3) Bidder’s safety precautions and programs.

F. Based on the information and observations referred to in Paragraph 3.01.E above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and

within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

#### ARTICLE 4 – BIDDER’S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
  - 1. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
  - 2. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
  - 3. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.A:
    - a. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
    - b. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
    - c. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
    - d. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

#### ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

A. For all Work, **other than Unit Price Work**, a Lump Sum of:

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

B. All specified cash allowances are included in the price(s) set forth above, and have been computed in accordance with Paragraph 13.02 of the General Conditions.

C. Lump Sum for the following Work Items:

LS-1 Building Permit fees, in total, for required permits	\$	5,000
The Total Contract for the Lump Sum Price of:	\$	5,000

D. For the following Alternates in priority order as selected by the Owner for inclusion in the Project as follows:

Alternate No. G1 (preferred brand alternate): Swing Door Operator	\$
Alternate No. G2 (preferred brand alternate): Single ADA Water Cooler (Drinking Fountain) with Bottle Filling Station	\$
Alternate No. G3 (preferred brand alternate): Sensor Operated Faucet	\$
Alternate No. G4 (preferred brand alternate): Sensor Operated Retrofit Kit for Water Closet and Urinal Flush Valve	\$
Alternate No. G5 (preferred brand alternate): Concealed Sensor Operated Water Closet Flush Valve	\$
Alternate No. G6 (preferred brand alternate): Automated Feminine Hygiene Dispenser	\$
Alternate No. G7 (preferred brand alternate): Combination Automated Towel Dispenser / Waste Receptacle	\$
Alternate No. G8 (preferred brand alternate): Automated Soap Dispenser	\$

E. For Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in the Bid Schedule below.

**THIS AREA INTENTIONALLY LEFT BLANK**

**UNIT PRICE BID SCHEDULE**

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Estimated Quantity</b>	<b>Bid Unit Price</b>	<b>Extended Bid Price</b>
Q-1	New toilet seat	Ea.	10		
Q-2	New toilet seat spacers	1 set	6		
Q-3	New under-lavatory plumbing guard (P-trap)	Ea.	10		
Q-4	New 4"x4" ceramic wall tile	10 sf.	6		
Q-5	New coat hook	Ea.	6		
Q-6	New frameless mirror	20 sf.	5		
Q-7	New interior paint on existing GWB walls	100 sf.	10		
Q-8	New door closer	Ea.	15		
Q-9	New countertop support bracket	Ea.	5		
Q-10	New wall molding at existing lay-in ceiling system	12 ft.	3		

**TOTAL BID PRICE (Sum of Items Q-1 through Q-10) \$** \_\_\_\_\_

5.02 Bidders are hereby notified that GS 143-128(d), requires all bidders on single prime projects to identify on their Bid form the contractors they have selected for the subdivisions for branches of work for (1) HVAC, (2) Plumbing, (3) Electrical, and (4) General. Accordingly, bidder shall list below applicable selected contractors for the following branches of work (write "N/A" if not applicable or self-performed).

HVAC _____	_____
Name	License No.
Plumbing _____	_____
Name	License No.
Electrical _____	_____
Name	License No.
General _____	_____
Name	License No.

- A. Unit Prices have been computed in accordance with Paragraph 13.03.B of the General Conditions.
- B. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

- C. Bidder acknowledges that the rights of the Owner and the recommendations of the Engineer are not to be questioned in the Award of Contracts.
- D. Bidder acknowledges that it is the intention of the Mayor and City Council to let contracts on a basis of the Bids received in accordance with GS 143-129 and in such manner as they deem to be for the best interests of the Owner.
- E. Bidder acknowledges that the Owner reserves the right to accept or reject any or all bids and to waive any informalities in the bidding.
- F. Bidder acknowledges that should the total bid exceed the funds available to construct the project, the Owner reserves the right to reduce the scope of work from the project by deleting certain lump sum or unit price bid items prior to awarding the contract to bring the project within the funds available.
- G. Bidder acknowledges that if this contract is awarded, Bidder must, with every pay request, furnish to the Public Utilities Director of the City of Raleigh an accurate itemized statement of North Carolina Sales Taxes paid on materials, supplies, equipment, and other items charged to this contract, and otherwise fully comply with the "Procedure for Reporting North Carolina Sales Tax Expenditures.". A sales tax form must be submitted even if there is no sales tax incurred.
- H. Bidder agrees to begin work within 10 days from the date of the Notice to Proceed.
- I. Bidder agrees that should the Owner reduce the scope of work by 25% or less of the Total Bid price prior to award of the contract, the lump sum and the unit price on all bid items shall remain unchanged.
- J. Bidder agrees that in the case of failure on his part to execute the said Contract and the Bonds within 15 consecutive calendar days after written notice being given of the award of the Contract, the check, cash or Bid Bond accompanying this Bid shall be paid into the funds of the Owner's Account set aside for this Project, as liquidated damages for such failure; otherwise the check, cash or Bid Bond accompanying this Bid shall be returned to the Bidder.
- K. Bidder agrees to provide all necessary tools, machinery, equipment, apparatus, and all other means necessary to do all the work and will 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 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 Engineers under them, in a first class manner.

## **ARTICLE 6 – TIME OF COMPLETION**

- 6.01 Bidder agrees that the Base Bid Work will be substantially complete within 86 calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06.B of the General Conditions within 96 calendar days after the date when the Contract Times commence to run.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the Contract Times. This amount is agreed upon as the proper measure of liquidated damages the Owner will sustain, per day, by the failure of the undersigned to complete the work, within the stipulated time, and it is not to be construed, in any sense, as a penalty.
- 6.03 Milestone Dates



- A. The following principal events shall be completed and ready for final payment in accordance with paragraph 15.06 of the General Conditions within days indicated below after the date when the Contract Time commences to run. In accordance with paragraph 6.02 above as liquidated damages for delay (but not as penalty) Contractor shall pay Owner the amounts indicated below for each day that expires after the time specified below for completion and readiness for final payment.

Milestone Event	Calendar Days
N/A	

**ARTICLE 7 – ATTACHMENTS TO THIS BID**

7.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security in the form of a Bid Bond or Certified Check;
- B. In accordance with GS 143-128.2(c), Bidder shall identify on its bid the minority businesses that it will use on the project and the total dollar value of the bid that will be performed by the minority businesses and list the good faith efforts (Affidavit A) made to solicit participation. A Bidder that will perform all of the work with its own workforce may submit an Affidavit B to that effect in lieu of the affidavit A required above.
  - 1. Nondiscrimination Agreement
  - 2. Use of MWBE Businesses
  - 3. Identification of Minority Business Participation, and
  - 4. Affidavit A, Listing of Good Faith Effort, or Affidavit B, Intent to Perform Contract with Own Workforce
- C. Contractor’s Certificates, Affidavit of Organization and Authority of Sworn Statement
- D. City of Raleigh – Contractor’s Poor Performance Policy
- E. Non-Collusive Affidavit
- F. Notice to Contractor Regarding Intrusions Beyond Project Limits
- G. Evidence of authority to do business in the state of the Project (i.e., copy of contractor’s license).

7.02 Submit the Bidder’s Checklist as provided in the bidding documents with the bid submittal. The Checklist shall be completed and included as the first page of the submittal.

7.03 After the bid opening the Owner will consider all bids and alternates and determine the lowest responsible, responsive bidder. Upon notification of being the apparent low Bidder, the Bidder shall then file within 72 hours of the notification of being the apparent lowest bidder, the following:

- A. An Affidavit (C) that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the goal established by the Owner and indicated in the Instruction to Bidders, paragraph Minority Participation Goals. This affidavit shall give rise to the presumption that the bidder has made the required good faith effort; or,
- B. Affidavit (D) of its good faith effort to meet the goal. The document must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations and other

specific actions demonstrating recruitment and selection of minority businesses for participation in the contract.

7.04 Bidder understands that if this Bid is accepted by the Owner, Bidder shall not substitute for the subcontractors named in the Bid Documents except as allowed in the Supplementary Conditions.

**ARTICLE 8 – DEFINED TERMS**

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

**ARTICLE 9 – BID SUBMITTAL**

9.01 Bidder’s License

- A. Number: \_\_\_\_\_
- B. Classification: \_\_\_\_\_
- C. Limitation: \_\_\_\_\_
- D. Employer’s Tax ID No.: \_\_\_\_\_
- E. Business Address: \_\_\_\_\_
- F. Phone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_
- G. Contact Person: \_\_\_\_\_ E-mail Address: \_\_\_\_\_
- H. Phone No. w/ Ext.: \_\_\_\_\_

9.02 This Bid is submitted by:

If Bidder is:

**An Individual**

Name (typed or printed): \_\_\_\_\_

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

(Individual’s signature)

Doing business as: \_\_\_\_\_

**A Partnership**

Partnership Name: \_\_\_\_\_

The Organization and Internal Affairs of the Partnership are governed by the laws of the State of: \_\_\_\_\_

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

(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title (typed or printed): \_\_\_\_\_

Attest: \_\_\_\_\_

(Signature of Corporate Secretary)

**A Corporation**

Corporation Name: \_\_\_\_\_ (SEAL)

State of Incorporation: \_\_\_\_\_

Type (General Business, Professional, Service, Limited Liability): \_\_\_\_\_  
\_\_\_\_\_

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

(Signature -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title (typed or printed): \_\_\_\_\_  
(CORPORATE SEAL)

Attest: \_\_\_\_\_

(Signature of Corporate Secretary)

Date of Qualification to do business in North Carolina is \_\_\_\_/\_\_\_\_/\_\_\_\_.

**Limited Liability Company - LLC**

Name of LLC: \_\_\_\_\_

Name of State under whose Laws the Limited Liability Company was formed:

\_\_\_\_\_

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

(Signature of Manager)

Name (typed or printed): \_\_\_\_\_

Title (typed or printed): \_\_\_\_\_





# AIA<sup>®</sup> Document A310™ – 2010

## Bid Bond

**CONTRACTOR:**

*(Name, legal status and address)*

**SURETY:**

*(Name, legal status and principal place of business)*

**OWNER:**

*(Name, legal status and address)*

**City of Raleigh**  
**Engineering Services Department**  
222 West Hargett Street, Room 605  
Raleigh, NC 27601

**BOND AMOUNT: \$****PROJECT:**

*(Name, location or address, and Project number, if any)*

**ADA Improvements**  
**Raleigh, North Carolina**

- One Exchange Plaza  
1 Exchange Plaza, Raleigh NC 27601
- Raleigh Municipal Building  
222 W. Hargett Street, Raleigh NC 27601
- Raleigh Pathways Center  
900 S. Wilmington Street, Raleigh NC 27601

**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.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

Init.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_,

\_\_\_\_\_  
*(Contractor as Principal)* *(Seal)*

\_\_\_\_\_  
*(Witness)*

\_\_\_\_\_  
*(Title)*

\_\_\_\_\_  
*(Surety)* *(Seal)*

\_\_\_\_\_  
*(Witness)*

\_\_\_\_\_  
*(Title)*

## **INFORMATION FOR BIDDERS REGARDING COMPLIANCE WITH THE CITY OF RALEIGH'S MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISE (MWBE) PROGRAM**

### **Policy**

In accordance with North Carolina law, the City of Raleigh encourages and provides an equal opportunity for Certified Minority and Women-Owned Business Enterprises (MWBE) to participate in all aspects of the City's contracting and procurement programs.<sup>1</sup> The prime contractor or a first-tier subcontractor on a construction manager at risk (CMAR) project (collectively, "Bidder") shall be required to identify participation of MWBE businesses in its proposal, and document how that participation will be achieved. Bidders are subject to the City's MWBE subcontracting requirements (including good faith efforts as applicable), regardless if a Bidder is itself a Certified MWBE.<sup>2</sup>

The City has an aspirational goal of 15% of the total contract amount to be performed by MWBE businesses in contracts awarded by the City for: (i) construction and building projects of \$300,000 or more; and (ii) construction and building projects of \$100,000 or more that have any state funding.

### **Definitions**

#### *Certified Minority Business (MWBE)*

A business which:

- a. At least fifty-one percent (51%) is owned by one or more Minority Persons or Socially and Economically Disadvantaged Individuals; or in the case of a corporation, in which at least fifty-one percent (51%) of the stock is owned by one or more Minority Persons or Socially and Economically Disadvantaged Individuals;
- b. The management and daily business operations are controlled by one or more Minority Persons or Socially and Economically Disadvantaged Individuals; and
- c. Is certified in one of the MWBE categories as defined by the NC Department of Administration/Historically Underutilized Business (HUB) and the NC Department of Transportation/Disadvantaged Business Enterprise (DBE).

#### *Minority Person*

A person who is a citizen or lawful permanent resident of the United States and who is:

- a. Black, that is, a person having origins in any of the black racial groups in Africa;
- b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Islands, regardless of race;
- c. Asian American, that is, a person having origins in any of the original peoples of the Far East, Southeast Asia, Asia, the Indian subcontinent, or the Pacific Islands;
- d. American Indian, that is, a person having origins in any of the original peoples of North America; or
- e. Non-minority Female.

#### *Socially and Economically Disadvantaged Individual*

Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities. Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged.<sup>3</sup>

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<sup>1</sup> See, N.C.G.S. §§ 143-128.2, 143-128.4, 143-129, and 143-131.

<sup>2</sup> See, City of Raleigh SOP 505-2.

<sup>3</sup> See, 15 U.S.C. 637.



## **Bidder Responsibilities**

Bidders agree to comply with all the terms and conditions of the City of Raleigh's Minority and Women-Owned Business Enterprise (MWBE) Program. Bidders must use good faith efforts (if applicable) to meet participation goals through the award of subcontracts to certified MWBE businesses consistent with City policy and North Carolina law.

## **Pre-Bid Opening**

The City's Solicitation Documents include forms that: (a) capture information about MWBEs and any other subcontractors or suppliers that a Bidder intends to use on a contract ("Identification of MWBE Participation") and (b) affidavits to be completed by the Bidder.

### *Identification of MWBE Participation*

The "Identification of MWBE Participation" must be completed by the Bidder on the City's form and submitted with its bid. If the project work is to be self-performed by the Bidder, the Bidder must so designate by checking the appropriate box on the form. For all Bidders which will not be self-performing the project work, the "Identification of MWBE Participation" form must be completed in its entirety. The Bidder must list on the City's form all MWBE businesses which will be construction subcontractors, vendors, or suppliers (collectively, "Subcontractors") on the project, and the total dollar value of its bid that will be performed by MWBEs. The failure to complete the "Identification of MWBE Participation" form in its entirety, or the failure to submit a completed "Identification of MWBE Participation" form with its bid, will render the bid non-responsive and the Bidder's bid will not be considered for award. The City will only credit MWBE participation for those Subcontractors listed on the "Identification of MWBE Participation" form.

### *Affidavit A: Listing of Good Faith Efforts*

If the Bidder intends to subcontract any portion of the project work on a contract, an Affidavit A must be properly executed and submitted with its bid, listing the good faith efforts the Bidder made to achieve MWBE subcontracting goals for the contract prior to submitting its bid. The Affidavit A must be completed using the City's form. A minimum of fifty (50) good faith efforts points is required, the failure to achieve at least 50 points is grounds for rejection of a bid.

### *Affidavit B: Intent to Perform Contract with Own Workforce*

In lieu of an Affidavit A, a Bidder that intends to perform 100% of the project work on a contract with its own current workforce may submit an Affidavit B with its bid. In submitting an Affidavit B, a Bidder certifies that the Bidder does not customarily subcontract elements of this type of project, and normally performs, has the capability to perform, and will perform all elements of the project work on the contract with its own current workforce. The Affidavit B must be completed using the City's form.

The failure to submit a properly executed Affidavit A or Affidavit B with a bid will render the bid non-responsive and the bid will not be considered for award.

## **Bid Opening**

At the project bid opening, the total MWBE participation for each bid will be recorded. Upon being named the apparent low bidder, the Bidder must comply with the following:

- a. If the Bidder submitted an Affidavit B with its bid indicating its intent to perform 100% of the project work on the contract with its own current workforce, then the Bidder is not required to resubmit its Affidavit B or to submit any additional affidavits (i.e., Affidavit C or Affidavit D). The City, in its discretion, may request that the Bidder submit additional information or documentation, including, but not limited to, information relating to the Bidder's subcontracting history and its ability to perform all elements of the project work on the contract with its own current workforce.

- b. If the Bidder submitted an Affidavit A with its bid and the amount of MWBE participation as a percentage of the total contract price meets or exceeds the applicable goal, then the Bidder must submit to the City an Affidavit C within three (3) business days after being notified by City Staff that it is the apparent low bidder. The Bidder must complete the Affidavit C in its entirety using the City's form.
- c. If the Bidder submitted an Affidavit A with its bid and the amount of MWBE participation as a percentage of the total contract price does not meet the applicable goal, then the Bidder must submit an Affidavit D to the City within three (3) business days after being notified by City Staff that it is the apparent low bidder. The Bidder must complete Affidavit D in its entirety on the City's form. In conjunction with the Affidavit D, the Bidder must include supplemental documentation of the good faith efforts made to meet the applicable goal. The City, in its discretion, may request that the Bidder submit additional information or documentation, including, but not limited to, information or documentation relating to any good faith efforts claimed by the Bidder, and completion of the City's Good Faith Negotiation Form and Solicitation Form. Good faith efforts can be demonstrated using, among other factors, the following:
  - i. Attending pre-solicitation or pre-bid meetings that are scheduled by the City to inform MWBE firms of contracting, subcontracting, and supply opportunities.
  - ii. Advertising in general circulation, trade association, or minority-focus media concerning subcontracting opportunities.
  - iii. Providing written notice, to a reasonable number of specific MWBE firms that their interest in the contract is being solicited, at least 10 days before bids are due, to allow MWBE firms time to participate.
  - iv. Following up initial solicitation of interest by contacting MWBE firms to determine with certainty whether the MWBE firms are interested.
  - v. Identifying and selecting portions of the work to be performed by MWBE firms in order to increase the likelihood of MWBE participation (including where appropriate, breaking down contracts into economically feasible units to facilitate MWBE participation).
  - vi. Providing interested MWBE firms with equal access to plans, specifications, and requirements of the contract.
  - vii. Negotiating fairly with interested MWBE firms, not rejecting MWBE firms as unqualified without sound reasons based on a thorough investigation of their capabilities.
  - viii. Using the services of the City's MWBE office; available minority community organizations; minority contractors' groups; local, state, and federal minority business offices; and other organizations that provide assistance in the recruitment and placement of MWBE firms.
  - ix. Assisting interested MWBE firms in need of equipment, loan capital, lines of credit or joint pay agreements to secure loans, supplies or letters of credit, including waiving credit that is ordinarily required.
  - x. Assisting interested MWBE firms in obtaining bonding, insurance, or providing alternatives to bonding or insurance for Subcontractors.
  - xi. Negotiating joint venture and partnership arrangements with minority businesses to increase the opportunities for minority participation when possible.
  - xii. Provide for quick pay agreements and policies to enable minority contractors and suppliers to meet cash flow demands.

For each unmet MWBE participation goal, for which an Affidavit D is submitted, a Bidder must earn at least fifty (50) good faith efforts points. The failure to achieve at least fifty (50) points is grounds for rejection of a bid. All

actions necessary to earn good faith efforts points must occur prior to bid opening. In determining whether a Bidder has made good faith efforts, the City will evaluate the efforts made by the Bidder and will determine compliance with regard to quantity, intensity, and results of these efforts prior to recommendation of award.

## **Post-Award**

### *Payment*

For purposes of this section the word “Contractor” means both the prime contractor and the CMAR for CMAR projects. The Contractor must submit a completed **Payment Affidavit - Subcontractor / Supplier Utilization Form** with each payment application, including periodic payments and final payment. Payment applications will not be processed by the City until a completed Payment Affidavit – Subcontractor/ Supplier Utilization Form is submitted. Within seven (7) days of receipt by the Contractor of a periodic or final payment from the City, the Contractor must pay each first-tier Subcontractor based on work completed or services provided under each subcontract. If the Contractor has made a quick pay commitment with any MWBE Subcontractor, they must comply with the provisions of their quick pay commitment.

### *Changing a Certified MWBE Subcontractor*

If the situation arises that it becomes necessary to terminate, replace, or reduce the work of a MWBE Subcontractor counted toward a committed MWBE subcontracting goal, the Contractor must submit a completed **Request to Change MWBE Subcontractor** form to the applicable department project manager and the City’s MWBE Program Manager. Any change in the work of a MWBE Subcontractor, including its termination and/or replacement, must first be approved by the City based upon good cause shown. Any further explanation or detail to the City in addition to what is identified in the Request to Change MWBE Subcontractor form must be on company letterhead. Good faith efforts shall apply to the selection of any substitute Subcontractor.

NONDISCRIMINATION AGREEMENT 4/16

This agreement is made and executed this \_\_\_ day of \_\_\_\_\_, 20\_\_\_, by and between the undersigned.

To the extent permitted by North Carolina law, the parties hereto for themselves, their agents, officials, employees and servants agree not to discriminate in any manner on the basis of race, color, creed, national origin, sex, age, handicap, or sexual orientation with reference to the subject matter of this Contract. The parties further agree, to the extent permitted by law, to conform with the provisions and intent of City of Raleigh Ordinance 1969-889, as amended. This provision is hereby incorporated into this Contract for the benefit of the City of Raleigh and its residents, and may be enforced by action for specific performance, injunctive relief, or other remedy as provided by law. This provision shall be binding on the successors and assigns of the parties with reference to the subject matter of this Contract.

This agreement shall be binding on the successors and assigns of the parties with reference to the subject matter of this contract.

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

\_\_\_\_\_  
(Corporate Name)

ATTEST:

\_\_\_\_\_  
(Assistant) Secretary

By: \_\_\_\_\_  
(Vice) President

(AFFIX CORPORATE SEAL)

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

By: \_\_\_\_\_(SEAL)

WITNESS:

\_\_\_\_\_

## USE OF CERTIFIED MWBE BUSINESSES

The City's policy is to encourage Bidders to use Certified MWBE businesses as subcontractors. A presentation of that policy is made at the pre-bid conference. All construction Bid documents include the listing of the businesses in the construction-related fields that have been certified by the City is included following the Supplementary Conditions.

### Formal Bid Process

The City requires all Bidders to submit a list of their subcontractors with their Bid and to identify all Certified Minority & Women-Owned Businesses (MWBE). After the Bid opening, the City will attempt to verify if those listed by the low Bidder are Certified MWBE businesses and that those listed have had contact with the low Bidder relative to constructing a portion of the Project. It is understood that this information will be provided to the City Council in the agenda packet with the Bid tabulation on the Project. It is further understood that the Contract Documents include a provision that the City will be notified of any changes in subcontractors. The low Bidder will be informed of that responsibility prior to signing the Contract.

I have read and understand the City of Raleigh's policy as stated above.

---

Signature

---

Printed Name

---

Title

---

Date

## IDENTIFICATION OF CERTIFIED MWBE PARTICIPATION

**\*\*SUBMIT WITH BID\*\***

I, \_\_\_\_\_,  
**(Name of Bidder)**

I do hereby certify that on this project, we will use the following Certified MWBE businesses as construction subcontractors, vendors, suppliers or providers of professional services.

**Project Name:** \_\_\_\_\_

**Total Project Bid \$** \_\_\_\_\_ **Bid Date:** \_\_\_\_\_

Business Name, Phone #, Email	Work Type	*MWBE	CERTIFIED NCHUB/NCDOT-DBE	Dollar Value	%

\*MWBE Program Categories:

American Indian **(AI)**, Asian American **(AA)**, Black, African American **(B)**, Hispanic **(H)**, Non-minority female **(NMF)** Socially and Economically Disadvantaged **(D)**

**Total dollar value of MWBE subs will be (\$)** \_\_\_\_\_ **Total MWBE percentage** \_\_\_\_\_ %  
**Minority** \_\_\_\_\_ %\* **- Non-minority Female** \_\_\_\_\_ %\*  
**Socially and Economically Disadvantaged** \_\_\_\_\_ %\*

\*For informational purposes only

**AFFIDAVIT A**  
**Listing of Good Faith Effort**  
**\*\*SUBMIT WITH BID, if subcontracting\*\***

County of \_\_\_\_\_  
Affidavit of \_\_\_\_\_

(Name of Bidder)

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

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

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

**10-Provided quick pay agreements and policies to enable Certified MWBE business contractors and suppliers to meet cash flow demands.**

**Value=20 points.**

**TOTAL POINTS OBTAINED \_\_\_\_\_.**

In accordance with GS143-128.2 (d) the undersigned will enter into a formal agreement with the firms listed on the Identification of Certified MWBE Participation schedule conditional upon execution of a contract with the Owner. Failure to abide by this statutory provision will constitute a breach of the contract.

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

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

Name of Authorized Officer: \_\_\_\_\_

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

Title: \_\_\_\_\_

State of North Carolina, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

Notary Public \_\_\_\_\_ My commission expires \_\_\_\_\_

SEAL



**AFFIDAVIT B**

**Intent to Perform Contract with Own Workforce**

**\*\*SUBMIT WITH BID – If Self-performing, don't submit Affidavit A \*\***

County of \_\_\_\_\_

Affidavit of \_\_\_\_\_

(Name of Bidder)

I hereby certify that it is our intent to perform 100 % of the work required for the \_\_\_\_\_ Contract. **Total Project Bid \$** \_\_\_\_\_ **Bid Date** \_\_\_\_\_

**(Name of Project)**

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

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

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

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

Name of Authorized Officer: \_\_\_\_\_

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

Title: \_\_\_\_\_

State of North Carolina, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

Notary Public \_\_\_\_\_ my commission expires \_\_\_\_\_

SEAL

**AFFIDAVIT C**

**Portion of the work to be performed by Certified MWBE Businesses**

\*\*This form is to be submitted only by the apparent lowest responsible, responsive bidder\*\*

County of \_\_\_\_\_

If the portion of the work to be executed by Certified MWBE Businesses as defined in GS 143-128.2 (g) **is equal to or greater than 15%** of the bidder's total contract price, then the bidder must complete this affidavit. *This affidavit shall be provided by the apparent lowest responsible, responsive bidder within 72 hours after notification of being low bidder.*

Affidavit of \_\_\_\_\_ I do hereby certify that on the  
 \_\_\_\_\_  
 (Name of Bidder)  
 \_\_\_\_\_ Total Project Bid \$ \_\_\_\_\_ Bid Date \_\_\_\_\_  
 (Project Name)

**Total dollar value of Certified MWBE businesses is \$ \_\_\_\_\_ for a total of \_\_\_\_\_% of this contract.** The Certified MWBE Businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. Attach additional sheets if required.

Business Name, Phone #, Email	Work Type	*MWBE	CERTIFIED NCHUB/NCDOT-DBE	Dollar Value	%

**\*Certified MWBE Business Program Categories:**

American Indian (AI), Asian American (AA), Black, African American (B), Hispanic (H), Non-minority female (NMF) Socially and Economically Disadvantaged (D)

Pursuant to GS 143-128.2 (d), the undersigned will enter into a formal agreement with Certified MWBE Business Program Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

Bidder must submit the Certified Subcontractor Payment with each payment request and final payment to the Project Manager.

Bidder must submit a Request to Change a Certified MWBE Subcontractor form to the Project Manager if necessary to replace/discontinue a MWBE Subcontractor.

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

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

Name of Authorized Officer: \_\_\_\_\_

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

Title: \_\_\_\_\_

State of North Carolina, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_ my commission expires \_\_\_\_\_

SEAL

**AFFIDAVIT D  
Good Faith Efforts**

\*\*This form is to be submitted only by the apparent lowest responsible, responsive bidder with GFE Documents\*\*

County of \_\_\_\_\_

If the goal of 15% participation by Certified MWBE Businesses **is not** achieved, the Bidder shall provide the following documentation to the Owner of his Good Faith Efforts:

Affidavit of \_\_\_\_\_ I do hereby certify that the attached documentation is true  
(Name of Bidder) and accurate presentation of my good faith efforts.

\_\_\_\_\_ Total Project Bid \$ \_\_\_\_\_ Bid Date \_\_\_\_\_  
(Project Name)

**Total dollar value of Certified MWBE businesses is \$ \_\_\_\_\_ for a total of \_\_\_\_\_% of this contract.** The Certified MWBE Businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. Attach additional sheets if required.

(Attach additional sheets if required)

Business Name, Phone #, Email	Work Type	*MWBE	CERTIFIED NCHUB/NCDOT-DBE	Dollar Value	%

\*Certified MWBE Business Program Categories:  
American Indian (AI), Asian American (AA), Black, African American (B), Hispanic (H), Non-minority female (NMF) Socially and Economically Disadvantaged (D)

Documentation of the Bidder's Good Faith Efforts to meet the goals set forth in these provisions. Examples of documentation include, but are not limited to, the following evidence:

- A. Copies of solicitations for quotes to at least three (3) Certified MWBE businesses from the source list provide by the City of Raleigh for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be

subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contract, and location, date and time when quotes must be received.

- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where a Certified MWBE business is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- E. Documentation of any contacts or correspondence to Certified MWBE business. Community or contractor organizations in an attempt to meet the goal.
- F. Copy of the pre-bid letter.
- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for Certified MWBE business.
- H. Letter detailing reasons for rejections of Certified MWBE business due to lack of qualification.
- I. Letter documenting proposed assistance offered to Certified MWBE business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

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

Bidder must submit the Certified Subcontractor Payment with each payment request and final payment to the Project Manager.

Bidder must submit a Request to Change a Certified MWBE Subcontractor form to the Project Manager if necessary to replace/discontinue a MWBE Subcontractor.

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

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Title: \_\_\_\_\_

State of North Carolina, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_ My commission expires \_\_\_\_\_

SEAL

**APPENDIX E - CERTIFIED SUBCONTRACTOR PAYMENT FORM**  
**\*\*SUBMIT WITH EACH PAYMENT REQUEST AND FINAL PAYMENT \*\***

**City of Raleigh MWBE Report For Subcontractor Payments**

Prime Contractor: \_\_\_\_\_

City of Raleigh Contract ID Number: \_\_\_\_\_

Total Contract Amount: \$\_\_\_\_\_

City of Raleigh Project Manager Name: \_\_\_\_\_

Total MWBE Subcontractor Amount: \$\_\_\_\_\_ Total MWBE \_\_\_\_\_%

City Project Name: \_\_\_\_\_

Prime Contractor's Pay Application Number: \_\_\_\_\_ Thru Date: \_\_\_\_\_

Project Completed Date: \_\_\_\_\_

**The Prime Contractor shall list below all payments for work completed by MWBEs including amounts requested for this pay application period.**

MWBE Subcontractor Name	Contact Person Name	Contact Phone	Description of Work being performed	Total Subcontract amount	% of total contract per sub	Amount billed Previously	Amount billed this period	Amount Paid to date	% of total subcontract amount completed	MWBE	PROJECT COMPLETED DATE
<b>Totals:</b>											

MWBE Categories: American Indian (AI), Asian American (AA), Black African-American (B), Hispanic (H), Non-Minority Female (NMF), Socially and Economic Disadvantaged (D)

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

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

Title: \_\_\_\_\_

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

**REQUEST TO CHANGE A CERTIFIED MWBE SUBCONTRACTOR**

Project Name: \_\_\_\_\_

Prime Contractor: \_\_\_\_\_ Contact Name: \_\_\_\_\_

Phone #: \_\_\_\_\_ Email Address: \_\_\_\_\_

Project Manager Name: \_\_\_\_\_ Division: \_\_\_\_\_

Will this request change the dollar amount of the contract? Yes \_\_\_ No \_\_\_ If yes,  
Original total contract amount \$ \_\_\_\_\_ and proposed total contract: \$ \_\_\_\_\_

The proposed request will do the following to overall MWBE participation (please check one):

Increase \_\_\_ Decrease \_\_\_ No Change \_\_\_

Name current MWBE subcontractor: \_\_\_\_\_

Service provided: \_\_\_\_\_

**Proposed Action:**

\_\_\_ Replace MWBE subcontractor

\_\_\_ Perform work in-house

You must provide one of the following reasons (Please check applicable reason):

\_\_\_ The listed MWBE, after having had a reasonable opportunity to do so, fails or refuses to execute a written contract.

\_\_\_ The listed MWBE is bankrupt or insolvent.

\_\_\_ The listed MWBE fails or refuses to perform his/her subcontract or furnish the listed materials.

\_\_\_ The work performed by the listed subcontractor is unsatisfactory according to industry standards and is not in accordance with the plans and specifications; or the subcontractor is substantially delaying or disrupting the progress of the work.

\_\_\_ Other. Explain on company letter head.

Name of replacement subcontractor: \_\_\_\_\_

Is the subcontractor a certified MWBE? \_\_\_ Yes \_\_\_ No

***If no, please attach documentation of outreach efforts employed by the firm to utilize an MWBE.***

Dollar amount of amended subcontractor \$ \_\_\_\_\_ MWBE \_\_\_\_\_ %

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**Interoffice Use Only:**

Approval Yes No

Date \_\_\_\_\_

Signature \_\_\_\_\_



# AIA<sup>®</sup> Document A312™ – 2010

## Performance Bond

**CONTRACTOR:**

(Name, legal status and address)

**SURETY:**

(Name, legal status and principal place of business)

**OWNER:**

(Name, legal status and address)

**City of Raleigh**  
**Engineering Services Department**  
222 West Hargett Street, Room 605  
Raleigh, NC 27601

**CONSTRUCTION CONTRACT**

Date:

Amount: \$

Description:

(Name and location)

**ADA Improvements**  
**Raleigh, North Carolina**

- One Exchange Plaza  
1 Exchange Plaza, Raleigh NC 27601
- Raleigh Municipal Building  
222 W. Hargett Street, Raleigh NC 27601
- Raleigh Pathways Center  
900 S. Wilmington Street, Raleigh NC 27601

**BOND**

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond:  None  See Section 16

**CONTRACTOR AS PRINCIPAL**

Company: (Corporate Seal)

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

Name and

Title:

(Any additional signatures appear on the last page of this Performance Bond.)

**SURETY**

Company: (Corporate Seal)

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

Name and

Title:

**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.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

Init.

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**User Notes:**

(1110519892)



(FOR INFORMATION ONLY — Name, address and telephone)

**AGENT or BROKER:**

**OWNER'S REPRESENTATIVE:**

*(Architect, Engineer or other party:)*



Init.

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**User Notes:**

(1110519892)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

#### § 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

*(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)*

**CONTRACTOR AS PRINCIPAL**

Company: \_\_\_\_\_ (Corporate Seal)

Signature: \_\_\_\_\_  
Name and Title: \_\_\_\_\_  
Address: \_\_\_\_\_

**SURETY**

Company: \_\_\_\_\_ (Corporate Seal)

Signature: \_\_\_\_\_  
Name and Title: \_\_\_\_\_  
Address: \_\_\_\_\_





# AIA<sup>®</sup> Document A312™ – 2010

## Payment Bond

**CONTRACTOR:**

(Name, legal status and address)

**SURETY:**

(Name, legal status and principal place of business)

**OWNER:**

(Name, legal status and address)

**City of Raleigh**  
**Engineering Services Department**  
222 West Hargett Street, Room 605  
Raleigh, NC 27601

**CONSTRUCTION CONTRACT**

Date:

Amount: \$

Description:

(Name and location)

**ADA Improvements**  
**Raleigh, North Carolina**

- One Exchange Plaza  
1 Exchange Plaza, Raleigh NC 27601
- Raleigh Municipal Building  
222 W. Hargett Street, Raleigh NC 27601
- Raleigh Pathways Center  
900 S. Wilmington Street, Raleigh NC 27601

**BOND**

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond:  None  See Section 18

**CONTRACTOR AS PRINCIPAL**

Company: (Corporate Seal)

**SURETY**

Company: (Corporate Seal)

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

Name and

Title:

(Any additional signatures appear on the last page of this Payment Bond.)

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

Name and

Title:

**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.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

*(FOR INFORMATION ONLY — Name, address and telephone)*

**AGENT or BROKER:**

**OWNER'S REPRESENTATIVE:**

*(Architect, Engineer or other party:)*



Init.

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**User Notes:**

(1497911915)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.



§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

## § 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

*(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)*

**CONTRACTOR AS PRINCIPAL**

Company: \_\_\_\_\_ (Corporate Seal)

Signature: \_\_\_\_\_  
Name and Title: \_\_\_\_\_  
Address: \_\_\_\_\_

**SURETY**

Company: \_\_\_\_\_ (Corporate Seal)

Signature: \_\_\_\_\_  
Name and Title: \_\_\_\_\_  
Address: \_\_\_\_\_



**PROCEDURE FOR REPORTING NORTH CAROLINA SALES TAX  
EXPENDITURES ON CITY OF RALEIGH CONTRACTS**  
*(for projects with reimbursable sales tax excluded from Bid)*

1. The following procedure in handling the North Carolina Sales Tax is applicable to this project. Contractors shall comply fully with the requirements outlined hereinafter, in order that the owner may recover the amount of the tax permitted under the law. For the purposes of this section, "Sales Taxes" shall mean sales and use taxes paid to the State of North Carolina or to local governments in North Carolina.
  - (a) Reimbursable Sales Taxes are to be excluded from the bid price for this project.
  - (b) The City is entitled to refunds from the State of North Carolina for these reimbursable sales taxes. The Contractor that performs work under this contract is allowed to obtain a reimbursement from the City for those Sales Taxes for which the State will grant a refund to the City. The City will reimburse the Contractor, and the City later obtains a refund from the State.
  - (c) It shall be the general contractor's responsibility to furnish the City documentary evidence showing the materials used and sales tax paid by the general contractor and each of his subcontractors. Any county sales tax included in the contractor's statements must be shown separately from the state sales tax. If more than one county is shown, each county shall be listed separately.
  - (d) The documentary evidence shall be the attached Reimbursable Sales and Use Tax Statement. This evidence shall consist of a certified statement, by the general contractor and each of his subcontractors individually, showing total purchases of materials from each separate vendor and total sales taxes by each county paid each vendor. The certified statement must show the invoice number (s) covered and inclusive dates of such invoices. State sales tax shall be listed separately from county sales tax. If more than one county is shown, each county shall be listed separately. The invoices shall be provided to substantiate the information on the statement.
  - (e) Materials used from general contractor's or subcontractor's warehouse stock shall be shown in a certified statement at warehouse stock prices.
  - (f) The general contractor shall not be required to certify the subcontractor's statements. However, the subcontractor may submit for reimbursement by certifying a Reimbursable Sales and Use Tax Statement, submitting it to the general contractor for the general contractor to submit with the pay application for the properties listed on that form. The City will make the reimbursement payable to the Contractor.
  - (g) The documentary evidence to be furnished to owners eligible for Reimbursable Sales Tax refunds covers sales and/or use taxes paid on building materials used by general contractors and subcontractors in the performance of contracts with churches, orphanages,

hospitals not for profit, educational institutions not operated for profit and other charitable or religious institutions or organizations not operated for profit and incorporated cities, towns and counties in this State. The documentary evidence is to be submitted to the above-named institutions, organizations and governmental units to be included in claims for refunds to be prepared and submitted by them to obtain refunds provided by G.S. 105-164.14 and is to include the purchase of building materials, supplies, fixtures and equipment which become a part of or annexed to buildings or structures being erected, altered or repaired under contracts with such institutions, organizations or governmental units.

- (h) The Contractor may seek reimbursement separately from, but at the same time as, the application for payment is made for the properties that were taxed. The Contractor shall not file for reimbursement for Sales Taxes before the Contractor has the right to file an application for payment for the properties that were taxed.
- 2. If the State refuses to refund any such Sales Tax to the City, or if after a refund is made, the City is told to return a refund to the State, the Contractor shall upon demand repay the City for the amount of the failed refunds.
- 3. The contractor or contractors to whom an award is made on this project will be required to follow the procedure outlined above.
- 4. The contractor is advised that all requests for payment, partial or final, for work completed under this contract must include a sales tax report submitted in accordance with the procedures outlined above.

# North Carolina Reimbursable Sales and Use Tax Statement

(Paid During This Estimate Period)

Project \_\_\_\_\_ County \_\_\_\_\_ Estimate No. \_\_\_\_\_

Name of Contractor \_\_\_\_\_ Project Location \_\_\_\_\_ Period Ending \_\_\_\_\_

Date	Vendor	Type of Property Purchased	Invoice Number	Invoice Amount	State Tax 4.75%	County Tax 2.00%	Total Tax 6.75%	County
<b>TOTALS</b>								

The undersigned individual certifies (1) that he or she is an employee or principal of the Contractor that is filing this form with the City to request reimbursement for N.C. State and local sales and use taxes that the Contractor has paid, (2) that the above listed vendors were paid sales tax upon purchases of building materials during the period covered by the construction estimate, and the property upon which such taxes were paid with or will be used in the performance of this contract, (3) that no tax on purchases or rentals of tools and/or equipment is included in the above list, (4) that all of the material above became a part of or is annexed to the building or structure being erected, altered or repaired, and (5) that all of the information on this form, and any additional pages added to this page, if any, is true and accurate.

\_\_\_\_ County, North Carolina  
 Signed and sworn to (or affirmed) before this day by \_\_\_\_\_  
 \_\_\_\_\_ (signature of principal)  
 Date: \_\_\_\_\_  
 \_\_\_\_\_ Notary Public's Signature  
 \_\_\_\_\_ (Official Seal) My commission expires: \_\_\_\_\_  
 \_\_\_\_\_ (Notary's printed or typed name, Notary Public)

# North Carolina Reimbursable Sales and Use Tax Statement by Subcontractor

(Paid During This Estimate Period)

Project \_\_\_\_\_ Project Location \_\_\_\_\_ County \_\_\_\_\_ Estimate No. \_\_\_\_\_

Name of Subcontractor \_\_\_\_\_ Period Ending \_\_\_\_\_

Date	Vendor	Type of Property Purchased	Invoice Number	Invoice Amount	State Tax 5.50%	County Tax 2.25%	Total Tax 7.75%	County
<b>TOTALS</b>								

The undersigned individual certifies (1) that he or she is an employee or principal of the Subcontractor that is submitting this form with the Contractor so that the Contractor may request reimbursement for N.C. State and local sales and use taxes that the Subcontractor has paid, (2) that the above listed vendors were paid sales tax upon purchases of building materials during the period covered by the construction estimate, and the property upon which such taxes were paid with or will be used in the performance of this contract, (3) that no tax on purchases or rentals of tools and/or equipment is included in the above list, (4) that all of the material above became a part of or is annexed to the building or structure being erected, altered or repaired, and (5) that all of the information on this form, and any additional pages added to this page, if any, is true and accurate.

\_\_\_\_\_ County, North Carolina  
 Signed and sworn to (or affirmed) before this day by \_\_\_\_\_  
(name of principal)

\_\_\_\_\_  
(signature of principal)

Date: \_\_\_\_\_  
 \_\_\_\_\_  
Notary Public's Signature

\_\_\_\_\_  
(Notary's printed or typed name, Notary Public)

\_\_\_\_\_ My commission expires: \_\_\_\_\_  
(Official Seal)

NORTH CAROLINA  
WAKE COUNTY

CONTRACT FOR CONSTRUCTION/REPAIR

THIS CONTRACT (the "Contract") is entered into by and between \_\_\_\_\_, hereinafter referred to as the "Contractor", and the City of Raleigh, a North Carolina municipal corporation, hereinafter referred to as the "City" for the project entitled:

And for the not to exceed total Contract Amount of: \_\_\_\_\_ (in written word and numerals), unless changed by a duly authorized amendment or change order.

WITNESSETH:

WHEREAS, the City desires to procure a contractor to perform services; and

WHEREAS, the City has completed necessary steps for retention of construction/repair services under State law and applicable City policies; and

WHEREAS, the City has agreed to engage the Contractor, and the Contractor has agreed to contract with the City, for performance of services as described, and according to the further terms and conditions, set forth herein.

NOW THEREFORE, in consideration of sums to be paid to the Contractor, and other good and valuable consideration, the Contractor and City do contract and agree as follows:

1. Description of Work

The Contractor, at its own proper cost and expense and with skill and diligence, shall furnish all labor, tools, materials and equipment and do all things necessary for the proper construction and completion ready for use of the following improvements:

In strict accordance with and as shown in the specifications, schedules, drawings and other documents set forth herein or incorporated by reference as follows:

The Contractor shall further perform in accordance with the directions (not inconsistent therewith) given from time to time during the construction by the project engineer or of such other official, employee, or other agent of the City as the City may designate.

2. General Obligations of the Contractor

The Contractor will accept the prices specified in this Contract in full compensation and satisfaction for the performance of this Contract and as consideration of this Contract. The Contractor shall be responsible for all loss and damages of every kind and nature which may arise out of or an account of the performance of the work required by this Contractor, and for all risks of every description connected with the said work; and the Contractor shall be responsible for well and faithfully completing the whole work according to all applicable plans and specifications and the terms and conditions of this Contract.



### 3. Time of Commencement and Completion

The entire work required by this Contract shall be completed by the Contractor not later than \_\_\_\_\_ days after the date of Notice-to-Proceed.

### 4. Workmanship and Quality of Services/Warranties

All work under this Contract shall be done and performed to the satisfaction of the project engineer of the City of Raleigh, or of such other official, employee, or agent of the City as may be designated by the City, and such official, employee or agent designated by the City shall in all cases of dispute determine the quantity, quality, acceptability and fitness of the work and materials and of several portions thereof which are to be paid for under this Contract and shall decide and determine all questions which may arise as to the measurements, lines, levels and dimensions of the work and all questions respecting the true construction, interpretation or meaning of the plans and specifications. In case of dispute between the Contractor and the said official, employee, or agent of the City, the decision and determination of the latter shall be taken and shall be final and conclusive.

The Contractor, in executing this Contract, warrants that it will be responsible for the maintenance or correction of any work completed under this Contract that may become defective due to faulty workmanship or materials for a period of one (1) year after final acceptance of the work performed.

It is understood and agreed by the parties hereto that work done under this Contract shall be subject to all ordinances of the City of Raleigh relating to work done in the public streets or other public property of the City. Particularly reference is made to the provisions of Part 11, Chapter 6 of the Raleigh City Code.

### 5. Compensation

In consideration of the performance of this Contract and the full completion of the work required of the Contractor by the terms and conditions of this Contract, the City agrees to pay to the Contractor the contract amount based on the following: Partial payments will be made to the Contractor by the City NET thirty (30) days after presentation of a true and accurate payment application to the City as certified by the Project Engineer or agent of the City. **All invoices must include the following Purchase Order Number \_\_\_\_\_.** Final estimate of the amount due to the Contractor will be made within thirty (30) days after the certified completion and final acceptance of all the work required by the Contract less retainage per Section 6. Payment to the Contractor by the City of the amounts so determined to be due, in accordance with this Contract, shall relieve the City from all claims for work done and materials and equipment furnished under this Contract.

It is further mutually agreed between the parties that no estimate or partial payment made under this Contract shall be conclusive evidence of the performance of this Contract, either wholly or in part, and that no such payment shall be construed to be an acceptance of defective work or improper materials.

### 6. Retainage

This section will only apply if this public construction contract pertains to a project in which the total project costs are equal to or greater than one hundred thousand dollars (\$100,000.00).

To ensure proper performance of the Contract, the City may retain five percent (5%) of the amount of each approved partial or periodic payment application until the project work is fifty percent (50%) complete, provided that the Contractor continues to perform satisfactorily and any non-conforming work identified in writing prior to that date has been corrected by the Contractor and accepted by the construction manager.

If the City determines the Contractor's performance is unsatisfactory, the City may reinstate retainage in the amount of five percent (5%) for each subsequent partial or periodic payment application until the Contractor's

performance becomes satisfactory. The project shall be deemed fifty percent (50%) complete when the contractor's gross project invoices, excluding the value of materials stored off-site, equal or exceed fifty percent (50%) of the value of the contract, except 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. Following fifty percent (50%) completion of the project, the City may also withhold additional retainage from any subsequent periodic payment, not to exceed five percent (5%), in order to allow the City to retain two and one-half percent (2 ½%) total retainage through the completion of the project.

Within sixty (60) days after the submission of a pay request, the City with written consent of the surety shall release to the Contractor all retainage on payments held by the City if (1) the City receives a certificate of substantial completion from the architect, engineer, or designer in charge of the project; or (2) the City receives beneficial occupancy or use of the project. However, the City may retain sufficient funds to secure completion of the project or corrections on any work. If the City retains funds, the amount retained shall not exceed two and one-half (2 ½) times the estimated value of the work to be completed or corrected. Any reduction in the amount of the retainage on payments shall be with the consent of the contractor's surety.

Retainer provisions contained in Contractor's subcontracts may not exceed the terms and conditions for retainage provided herein. Contractors are further required to satisfy the retainage provisions of N.C.G.S. 143-134.1(b2) with regard to subcontracts for early finishing trades (structural steel, piling, caisson, and demolition) and to coordinate the release of retainage for such trades from the retainage held by the City from the Contractor pursuant to statute. Nothing shall prevent the City from withholding payment to the Contractor in addition to the amounts identified herein for unsatisfactory job progress, defective construction not remedied, disputed work, or third-party claims filed against the City or reasonable evidence that a third-party claim will be filed.

## 7. Notices

All notices, requests for payment, or other communications arising hereunder shall be sent to the following:

City of Raleigh  
Attn:  
Telephone:  
P.O. Box 590  
Raleigh, NC 27602

Contractor

## 8. Non-Discrimination

To the extent permitted by North Carolina law, the parties hereto for themselves, their agents, officials, employees and servants agree not to discriminate in any manner on the basis of race, color, creed, national origin, sex, age, handicap, or sexual orientation with reference to the subject matter of this Contract. The parties further agree, to the extent permitted by North Carolina law, to conform with the provisions and intent of City of Raleigh Ordinance 1969-889, as amended. This provision is hereby incorporated into this Contract for the benefit of the City of Raleigh and its residents, and may be enforced by action for specific performance, injunctive relief, or other remedy as provided by law. This provision shall be binding on the successors and assigns of the parties with reference to the subject matter of this Contract.

## 9. Minority and Women Owned Business Enterprise

The City prohibits discrimination in any manner on the basis of race, color, creed, national origin, sex, age or handicap or sexual orientation and will pursue an affirmative policy of fostering, promoting and conducting business with women and minority owned business enterprises. The City has adopted a goal of 15% for participation by small disadvantaged minority and women-owned businesses in order to reach the above stated goal.

The percentage of MWBE business participation engaged in this contract based on total contract amount is proposed to be \_\_\_\_%. Any variation from this amount is to be immediately conveyed to the City by written notice, Attention: MWBE Program Manager, PO BOX 590 Raleigh, NC 27602, with a copy to the City of Raleigh contact listed in the 'Notices' section of this Contract.

If this is a building project, documentation of good faith efforts to meet this goal is required. If this is a building project over \$300,000, this documentation must include the applicable MWBE affidavits. If there are any questions, Contact the MWBE Program Manager, PO BOX 590 Raleigh, NC 27602, [mwbe@raleighnc.gov](mailto:mwbe@raleighnc.gov), or 919-996-4330.

10. Assignment

This Contract may not be assigned without the express written consent of the City.

11. Applicable Law

All matters relating to this Contract shall be governed by the laws of the State of North Carolina, without regard to its choice of law provisions, and venue for any action relating to this Contract shall be Wake County Civil Superior Court or the United States District Court for the Eastern District of North Carolina, Western Division.

12. Insurance

Contractor agrees to purchase at its own expense insurance coverages to satisfy the following minimum requirements. A certificate reflecting the following minimum coverages shall accompany this Contract:

**Workers' Compensation Insurance:**

Limits:

Workers Compensation:	Statutory for the State of North Carolina
Employers Liability:	Bodily Injury by Accident \$1,000,000 each accident
Bodily Injury by Disease	\$1,000,000 policy limit
Bodily Injury by Disease	\$1,000,000 each employee

**Commercial General Liability:**

Limits:

Each Occurrence:	\$1,000,000
Personal and Advertising Injury	\$1,000,000
General Aggregate Limit	\$2,000,000
Products and Completed Operations Aggregate	\$2,000,000

The aggregate limit must apply per project. The form of coverage must be the ISO CG 00 01 policy as approved by the State of North Carolina Department of Insurance. If a form of coverage other than the CG 00 01 is used it must be approved by the City's risk manager. Any endorsed exclusions or limitations from the standard policy must be clearly stated in writing and attached to the Certificate of Insurance. Completed Operations coverage must be maintained for the period of the applicable statute of limitations.

The City of Raleigh must be added as an Additional Insured to the Commercial General Liability policy.

**Commercial Automobile Liability:**

Limits:

\$1,000,000 combined single limit.

The City of Raleigh must be added as an Additional Insured on the Commercial Auto Liability policy.

**Additional Insured** – Contractor agrees to endorse the City as an Additional insured on the Commercial General Liability, Auto Liability and Umbrella Liability if being used to meet the minimum liability limits for General Liability and Automobile Liability. The Additional Insured shall read ‘**City of Raleigh is named additional insured as their interest may appear**’.

The Certificate Holder address should read:

**City of Raleigh  
Post Office Box 590  
Raleigh, NC 27602-0590**

**Builders Risk Coverage:**

Limits:

Minimum limit in the amount of total bid price.

The Builder Risk policy must be endorsed to increase the limit of insurance for all change orders.

Policy Form:

Builder Risk coverage must be on a direct physical loss basis and contain no exclusion for theft, collapse or damage to foundations or underground structures, pipes or conduits.

Named Insured:

The Named Insured shall be The City of Raleigh, the Contractor and all sub-contractors with a contractual assumption of responsibility for damage to the project.

All insurance companies must be admitted to do business in North Carolina and be acceptable to the City’s risk manager. If the insurance company(s) is a permitted surplus lines insurer, the insurance company name, and NAIC number must be submitted to the City’s risk manager for approval before commencing work. Contractor shall be required to provide the City no less than thirty (30) days’ notice of cancellation, or any material change, to any insurance coverage required by this Contract.

A Certificate of Insurance (COI) must be issued by an authorized representative of the insurance carrier(s). Certificates of Insurance must have the insurance company name and NAIC number clearly identified. The acceptance of or the review of Certificates of Insurance by the City does not relieve Contractor of any requirements in the Contract to provide specific insurance coverage required by the Contract, nor does the acceptance of or review of Certificates of Insurance covenant all insurance requirements have been met.

### 13. Surety Bonds

If Surety Bonds are required by the City for this project, the Contractor shall have furnished and attached hereto a performance bond and a payment bond each in the penal sum of the full Contract amount covering the faithful performance of the Contract and the payment of all obligations arising hereunder, in such form and content as the City may prescribe and with surety approved by the City. Should any surety upon the bond for the performance of this Contract become unacceptable to the City, the Contractor must promptly furnish additional security as may be required from time to time by the City to protect the interests of the City and of persons, firms and corporations supplying labor or materials in the performance of the work contemplated by the Contract.

## 14. Indemnity

- A. To the fullest extent allowed by law, Contractor shall indemnify, defend, and hold harmless the City, its officers, officials, employees, agents, or indemnities (collectively called "Indemnified Parties") from and against those Losses, liabilities, damages, and costs proximately caused by, arising out of, or resulting from the sole negligence of the Contractor, the Contractor's agents, or the Contractor's employees.
- B. In matters other than those covered by subsection 14.A. above, and to the fullest extent allowed by law, Contractor shall indemnify, defend, and hold harmless the Indemnified Parties from and against those Losses, liabilities, damages, and costs caused by, arising out of, resulting from, or in connection with the execution of the work provided for in this Agreement when the Fault of the Contractor or its Derivative Parties is a proximate cause of the Loss, liability, damage, or expense indemnified.
- C. Costs and expenses shall include attorneys' fees, litigation or arbitration expenses, or court costs actually incurred by the Indemnified Parties to defend against third-party claims alleged in any court, tribunal, or alternative dispute resolution procedure required of any of the Indemnified Parties by law or by contract, only if the Fault of the Contractor or its Derivative Parties is a proximate cause of the attorney's fees, litigation or arbitration expenses, or court costs to be indemnified.
- D. The Contractor's duty to indemnify, defend, and hold harmless described hereinabove shall survive the termination or expiration of this Contract.
- E. Definitions:
  - 1. For the purposes of this Section 14, the term "Fault" shall mean any breach of contract; negligent, reckless, or intentional act or omission constituting a tort under applicable statutes or common law; or violation of applicable statutes or regulations.
  - 2. For the purposes of this Section 14, the term "Loss" or "Losses" shall include, but not be limited to, fines, penalties, and/or judgments issued or levied by any local, state, or federal governmental entity.
  - 3. For the purposes of this Section 14, the term "Derivative Parties" shall mean any of the Contractor's subcontractors, agents, employees, or other persons or entities for which the Contractor may be liable or responsible as a result of any statutory, tort, or contractual duty.

## 15. Force Majeure

Except as otherwise provided in any environmental laws, rules, regulations or ordinances applicable to the parties and the services performed under this Contract, neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations by an act of war, hostile foreign actions, nuclear explosion, earthquake, hurricane, tornado, or other catastrophic natural event or act of God. Either party to the Contract must take reasonable measures and implement reasonable protections when a weather event otherwise defined as a force majeure event is forecast to be eligible to be excused from the performance otherwise required under this Contract by this provision.

## 16. Advertising

The Contractor shall not use the existence of this Contract, or the name of the City, as part of any advertising without prior written approval of the City.

## 17. Termination

If the Contractor fails to perform the work described herein by the time allowances provided in Section 3, or fails to provide adequate staff and resources required to properly execute said work in a workmanlike and safe manner, the City can declare the Contractor in Default. If the Contractor fails to complete the work in the provided project duration as stated in Section 3 of this Contract, or fails to meet periodic schedules describing work sequence, or fails to comply with all appropriate local, federal, or state laws, rules and regulations, then the City may, without prejudice to any other right or remedy and after giving the Contractor and its surety a maximum of seven (7) days from delivery of a written notice, declare the Contract in default, take possession of the project and of all equipment, tools, materials thereon owned by the Contractor and call upon the surety or appropriate legal recourse to finish the work by whatever method deemed expedient.

## 18. Laws/Safety Standards

The Contractor shall comply with all laws, ordinances, codes, rules, regulations, safety standards and licensing requirements that are applicable to the conduct of its business, including those of federal, state, and local agencies having jurisdiction and/or authority.

All manufactured items and/or fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and approved in a manner acceptable to the appropriate state inspector which customarily requires the label or re-examination listing or identification marking of the appropriate safety standard organization, such as the American Society of Mechanical Electrical Engineers for pressure vessels; the Underwriters' Laboratories and/or National Electrical Manufacturers' Association for electrically operated assemblies; or the American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type(s) of devices offered and furnished. Further, all items furnished by the Contractor shall meet all requirements of the Occupational Safety and Health Act (OSHA), and state and federal requirements relating to clean air and water pollution.

Contractor must comply with *North Carolina Occupational Safety and Health Standards for General Industry 13 NCAC 07F (29CFR 1910)*. In addition, Contractor shall comply with all applicable occupational health and safety and environmental rules and regulations.

Contractor shall effectively manage its safety and health responsibilities including:

### a. Accident Prevention

Prevent injuries and illnesses to its employees and others on or near the job site. Contractor managers and supervisors shall ensure personnel safety by strict adherence to established safety rules and procedures.

### b. Environmental Protection

Protect the environment on, near, and around the work site by compliance with all applicable environmental regulations.

### c. Employee Education and Training

Provide education and training to all contractors employees before they are exposed to potential workplace or other hazards as required by specific OSHA Standards.

## 19. Applicability of North Carolina Public Records Law

Notwithstanding any other provisions of this Contract, this Contract and all materials submitted to the City by the Contractor are subject to the public records laws of the State of North Carolina and it is the responsibility of the Contractor to properly designate materials that may be protected from disclosure as trade secrets under North Carolina law as such and in the form required by law prior to the submission of such materials to the City. Contractor understands and agrees that the City may take any and all actions necessary to comply with federal, state, and local laws and/or judicial orders and such actions will not constitute a breach of the terms of this Contract. To the extent that any other provisions of this Contract conflict with this section, the provisions of this section shall control.

## 20. Miscellaneous

The Contractor shall be responsible for the proper custody and care of any property furnished or purchased by the City for use in connection with the performance of this Contract, and will reimburse the City for the replacement value of its loss or damage. The Contractor shall keep the job sites and surrounding area reasonably free from rubbish at all times and shall remove debris from the site from time to time or when directed to do so by the City. Before final inspection and acceptance of the project, the Contractor shall thoroughly clean the job sites, and completely prepare the project and site for use by the City.

The Contractor shall be considered to be an independent contractor and as such shall be wholly responsible for the work to be performed and for the supervision of its employees. Nothing herein is intended or will be construed to establish any agency, partnership, or joint venture. Contractor represents that it has, or will secure at its own expense, all personnel required in performing the services under this Contract. Such employees shall not be employees of or have any individual contractual relationship with the City.

This Contract may be amended only by written agreement of the parties executed by their authorized representatives.

## 21. Right of Audit and Examination of Records

- a. The City may conduct an audit of any services performed and fees paid subject to this Contract. The City, or its designee, may perform such an audit throughout the contract period and for three (3) years after termination thereof or longer if otherwise required by law.
- b. The Contractor and its agents shall maintain all books, documents, papers, accounting records, contract records and such other evidence as may be appropriate to substantiate costs incurred under this Contract. The City, or its designee, shall have the right to, including but not limited to: review and copy records; interview current and former employees; conduct such other investigation to verify compliance with Contract terms; and conduct such other investigation to substantiate costs incurred by this Contract.
- c. "Records" shall be defined as data of every kind and character, including but not limited to books, documents, papers, accounting records, contract documents, information, and materials that, in the City's sole discretion, relate to matters, rights, duties or obligations of this Contract.
- d. Records and employees shall be available during normal business hours upon advanced written notice. Electronic mail shall constitute written notice for purposes of this section.
- e. Contractor shall provide the City or its designee reasonable access to facilities and adequate and appropriate workspace for the conduct of audits.

- f. The rights established under this section shall survive the termination of the Contract, and shall not be deleted, circumvented, limited, confined, or restricted by contract or any other section, clause, addendum, attachment, or the subsequent amendment of this Contract.
- g. The Contractor shall reimburse the City for any overcharges identified by the audit within ninety (90) days of written notice of the City's findings.
- h. If an audit discloses overpricing or overcharges by the Contractor or Subcontractor in excess of one percent (1%) of the total contract billings, the Contractor shall reimburse the City for the cost of the audit.
- i. Contractor shall ensure that all contracts with any subcontractors provide the City with an equivalent right to audit as contained herein.
- j. Contractor shall, upon request, provide any records associated with this engagement to the North Carolina State Auditor that are necessary to comply with the provisions of G.S. § 147-64.7.

22. Incorporation of Documents/Complete Agreement

This Contract, and any documents incorporated below, represent the entire Contract between the parties and suspend all prior oral or written statements, agreements or Contracts.

Specifically incorporated into this Contract are the following attachments, or if not physically attached, are incorporated fully herein by reference:

- Advertisement for Proposals
- Contractor's Proposal
- Procedure for N.C. Sales Tax Reporting
- Performance Bond (w/Power-of-Attorney)
- Payment Bond (w/Power-of-Attorney)
- Certificate of Insurance
- General Conditions
- Special or Supplemental Conditions
- Job Specifications
- SDMWOB Affidavits/documentation
- Other (Describe) \_\_\_\_\_

In case of conflict between this Contract and any of the incorporated attachments or references listed above, the terms of this Contract shall prevail.

23. E – Verify

Contractor shall comply with *E-Verify*, the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law and as in accordance with N.C.G.S. §64-25 *et seq.* In addition, to the best of Contractor's knowledge, any subcontractor employed by Contractor as a part of this contract shall be in compliance with the requirements of E-Verify and N.C.G.S. §64-25 *et seq.* In cases of



conflict between this Contract and any of the above incorporated attachments or references, the terms of this Contract shall prevail.

24. Iran Divestment Act Certification

Contractor certifies that, as of the date listed below, it is not on the final divestment list as created by the State Treasurer pursuant to N.C.G.S. § 147-86.55, et seq. In compliance with the requirements of the Iran Divestment Act and N.C.G.S. § 147-86.59, Contractor shall not utilize in the performance of the Contract any subcontractor that is identified on the final divestment list.

25. Companies Boycotting Israel Divestment Act Certification

Contractor certifies that it has not been designated by the North Carolina State Treasurer as a company engaged in the boycott of Israel pursuant to N.C.G.S. 147-86.81.

*The remainder of this page is left blank intentionally.*

SAMPLE

THIS CONTRACT is entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

IN WITNESS WHEREOF, the Contractor has executed the foregoing with the signature(s) of its duly authorized officer(s), under seal, and the City has executed with the signature of its City Manager, attested by its (Assistant/Deputy) Clerk-Treasurer, with the official seal affixed, the day and year first above written.

**CONTRACTOR:**

**CITY OF RALEIGH**

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

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

\_\_\_\_\_  
City Manager or Authorized Designee

\_\_\_\_\_  
Printed Name/Title

(If corporate)

ATTEST:

ATTEST:

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

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

(Deputy) Clerk-Treasurer

\_\_\_\_\_  
Printed Name/Title  
(Affix Seal)

(Affix Seal)

THIS INSTRUMENT APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney



## Application and Certificate for Payment

**TO OWNER:** PROJECT: ADA Improvements  
Raleigh, North Carolina

**APPLICATION NO:** 001

**PERIOD TO:** \_\_\_\_\_

**CONTRACT FOR:** General Construction

**CONTRACT DATE:** \_\_\_\_\_

**PROJECT NOS:** Davis Kane Architects P.A. /  
/ City of Raleigh

**DISTRIBUTION TO:**

OWNER:

ARCHITECT:

CONTRACTOR:

FIELD:

OTHER:

**FROM CONTRACTOR:** VIA ARCHITECT:

### CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract. AIA Document G703<sup>®</sup>, Continuation Sheet, is attached.

1. ORIGINAL CONTRACT SUM ..... \$0.00
2. NET CHANGE BY CHANGE ORDERS ..... \$0.00
3. CONTRACT SUM TO DATE (Line 1 ± 2) ..... \$0.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) ..... \$0.00
5. RETAINAGE:
  - a. 0 % of Completed Work (Column D + E on G703) ..... \$0.00
  - b. 0 % of Stored Material (Column F on G703) ..... \$0.00
- Total Retainage (Lines 5a + 5b or Total in Column I of G703) ..... \$0.00
6. TOTAL EARNED LESS RETAINAGE ..... \$0.00  
(Line 4 Less Line 5 Total)
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT ..... \$0.00  
(Line 6 from prior Certificate)
8. CURRENT PAYMENT DUE ..... \$0.00
9. BALANCE TO FINISH, INCLUDING RETAINAGE ..... \$0.00  
(Line 3 less Line 6)

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

**CONTRACTOR:**

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

State of: \_\_\_\_\_

County of: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_

Notary Public: \_\_\_\_\_

My Commission expires: \_\_\_\_\_

### ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED ..... \$0.00  
(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

**ARCHITECT:**

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

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$0.00	\$0.00
Total approved this Month	\$0.00	\$0.00
TOTALS	\$0.00	\$0.00
NET CHANGES by Change Order		\$0.00



## SECTION 011000 – SUMMARY OF THE WORK

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Work covered by the Contract Documents.
  - 2. Drawing Index.

#### 1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: **ADA Improvements, Raleigh North Carolina**
- B. Project Location:
  - 1. One Exchange Plaza (OEP)  
1 Exchange Plaza, Raleigh NC 27601
  - 2. Raleigh Municipal Building (RMB)  
222 W. Hargett Street, Raleigh NC 27602
  - 3. Raleigh Pathways Center (RPC)  
900 S. Wilmington Street, Raleigh NC 27601
- C. Owner: City of Raleigh/ Engineering Services Dept.
  - 1. Owner's Representative: Echo Swanzey, Engineer Senior
- D. Architect: Davis Kane Architects, PA
  - 1. 503-300 Oberlin Road, Raleigh, North Carolina 27605  
Phone: (919) 833-3737
  - 2. Contact: Robert Stevenson and Sebastian Duca  
Email: [rstevenson@daviskane.com](mailto:rstevenson@daviskane.com) and [sduca@daviskane.com](mailto:sduca@daviskane.com)
- E. Briefly, and without force and effect upon contract documents, work of Contract can be summarized as follows:

Accessible upgrades at multiple City of Raleigh facilities: One Exchange Plaza, Raleigh Municipal Building, and Raleigh Pathways Center. The work includes upgrades to existing toilet room facilities, drinking fountains, door closers and installation of new main entry automatic door openers at the Raleigh Pathways Center.

  - 1. Main Entry Doors: Raleigh Pathways Center ONLY.
    - a. New ADA compliant, automatic door opener, push buttons.
  - 2. Interior Door Closers: select locations in all 3 facilities.
    - a. Existing interior door closers shall be adjusted to be ADA compliant.
  - 3. Drinking Fountains: select locations in all 3 facilities.

- a. Existing, non-compliant, drinking fountains shall be removed and replaced with ADA compliant drinking fountains. This work may require the removal or cutting of existing CMU and/or drywall.
  4. Toilet Rooms: select locations in all 3 facilities.
    - a. Existing, non-compliant, manual sink faucets shall be removed and replaced with new, ADA compliant automatic sink faucets.
    - b. Existing, non-compliant, manual flush vales shall be removed and replaced with new, ADA compliant automatic flush valves.
    - c. Existing, non-compliant toilet seats shall receive new spacers to ensure heights are within ADA complaint ranges.
    - d. Existing, non-compliant grab bars shall be removed and replaced with new, ADA compliant grab bars within ADA complaint height ranges.
    - e. Existing, non-compliant, mirrors shall be removed and replaced with new mirrors within ADA complaint height ranges.
    - f. New ADA compliant door hooks shall be provided installed at ADA compliant height.
    - g. Existing, non-compliant, feminine product, paper towel and soap dispensers shall be removed and replaced with new, ADA complaint automatic dispensers.
  5. Solid surface counter: One Exchange Plaza ONLY.
    - a. Existing, non-compliant, counter and sinks shall be removed and replaced with new, ADA compliant solid surface counter and new sinks at ADA compliant height.
  6. Patch and paint all areas within scope of project. All deliverables shall be turn-key.
- F. Contract Documents: Related requirements and conditions that are or are not indicated on the Contract Documents include, but are not necessarily limited to, the following:
1. Existing conditions and restrictions.
  2. Other work (furnishings and equipment) to be performed by Owner.
- G. Summary by References: As may be applicable, work of Separate Prime Contracts or Single Prime Contract (the Contract) can be summarized by reference to the Contract, General Conditions, Supplementary Conditions, Specification Sections as included in the "Table of Contents" bound herein, Drawings as listed in "Drawing Index" bound herein, Addenda and Modifications to the Contract Documents as issued after the initial printing of this project manual, and including but not necessarily limited to printed matter referenced by any of these. It is recognized that work of Contract may also be unavoidably affected or influenced by governing regulations, natural phenomenon including weather conditions, and other forces outside the Contract Documents.

#### 1.4 DRAWING INDEX

- A. The following is provided for information and coordination purposes.
1. Refer to the construction drawings Title Sheet.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

## SECTION - 011400 – WORK RESTRICTIONS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- 1. Provisions of this section include restrictions and provisions for working within the Work related to time, disturbances and general impact to building occupant in the existing facility.

- B. Related Requirements:

- 1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

#### 1.3 USE OF SITE

- A. Use of Site: Limit use of site to areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.

- 1. Ongoing facility occupancy: Allow for uninterrupted ongoing occupancy of the premises by the building tenants and visitors.
- 2. Staging and materials storage areas will be limited to the areas indicated in the documents or as approved by the Owner.
- 3. On-site parking during business hours will be limited to the locations indicated in the Documents.
- 4. Deliveries and pickup and haul-off activities during business hours will be restricted.
- 5. Construction operations will be coordinated to keep materials, debris and equipment in a neat and orderly arrangement and contained within the confines of the Area of Work.

- B. General: Contractor shall have limited use of Project site for construction operations during construction period. Contractor's use of Project site is limited by provisions stated below and by Owner's right to perform work or to retain other contractors on portions of Project.

- 1. Driveways, Walkways and Entrances: Keep driveways, parking areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

- a. Schedule deliveries to minimize use of driveways and entrances by construction operations.

- b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

- C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.



#### 1.4 COORDINATION WITH OCCUPANTS

- A. Partial Owner Occupancy: Owner will not occupy the Area of Work during construction, Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.
1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
  2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
  3. Area of Work will continue to serve as exit way for building occupants during construction. Ensure an unobstructed path to exit is maintained at all times.

#### 1.5 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Work in the existing buildings is restricted to normal business working hours, unless otherwise indicated.
1. Business Hours, Monday through Friday: Work hours are limited to General Public Hours, 8am-5pm.
  2. Utility Shutdowns: Work for utility shutdowns is not limited to specific hours. Obtain written permission from the Owner approving all utility interruptions.
  3. Disruptive Work: Work that is disruptive to the occupants may be performed during business hours unless the disruptive activities reach unacceptable levels as determined solely by the building occupants.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
1. Notify Architect and Owner not less than two days in advance of proposed utility interruptions.
  2. Obtain Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
1. Notify Architect and Owner not less than two days in advance of proposed disruptive operations.
- E. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet (8 m) of entrances, operable windows, or outdoor-air intakes.
- F. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.
- G. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.

- H. For the purposes of these Work Restrictions Business Hours are **8:00 AM to 5:00 PM, Monday through Friday** except for holidays and other days on which the business is closed. Non-business hours work will have differing Work Restrictions.
- I. Any request from Contractor to deviate from these requirements must be in writing to the **Architect** not less than 72 hours prior to the time the event is to occur.
  - A. At a minimum the request must include the following information
    - 1. The nature of the activity.
    - 2. The reason for the occurrence
    - 3. The areas affected by the activities.
    - 4. The days, and hours the occurrence will take place.
    - 5. What personnel will be on-site during the occurrence
    - 6. What steps, if any, the Owner must complete to allow the occurrence to take place.
  - B. Denial of any request by the Owner is not justifiable grounds for extension of time or increase in Contract Sum.

## 1.6 DEFINITIONS

- A. Disturbances: For the purposes of these Work restrictions disruptions and disturbances includes noise, vibrations, fumes, dust, water leakage, unplanned power outages, unplanned activation of the Fire Alarm or fire suppression system, unplanned interruptions of building systems, interaction between contracting personnel and building occupants or visitors, perceived disturbances or other occurrences that affect building occupants or staff or visitors. Building occupants are the final authority as to what constitutes an unacceptable level of disturbance. Any Work stoppage directed by Owner due to unacceptable disturbances is not justifiable cause for extension of Contract Time or increase in scope.
  - 1. Noise is any sound related to construction made by machinery, equipment, tools, vehicles or personnel. Excessive noise is noise of a type of volume that is disruptive to the building occupants and is subjective by nature.
  - 2. Vibration is movement felt by building occupants of any frequency that is not part of the normal building and site environment. It may be very high frequency such as that as produced by drilling, low frequency such as that produced by earth compaction equipment or irregular such as when produced by hammering or pounding
  - 3. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
  - 4. Dust Control. Any construction activities that create dust must be performed in a manner that does not allow dust to float or drift onto vehicles, other parts of the building or on any person visiting or working at the facility. Dust must be contained or it may be declared a disturbance.
  - 5. Unplanned outages or accidental alarms include any sudden change in the normal operation of building system including lighting, alarm systems, fire suppression system, mechanical or plumbing systems.
  - 6. Perceived disturbances by construction personnel include suggestive behavior, unwanted interaction or contact or other behavior that may cause building occupants any trepidation or discomfort.
  - 7. Notify Architect and Owner not less than two days in advance of proposed disruptive operations.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014000



## SECTION 012100 - ALLOWANCES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. See Division 1 specification section Unit Prices for requirements related to the Allowances.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
  - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in order to allow Owner to implement Work during construction without requiring modification to the Contract.
- B. Types of allowances include the following:
  - 1. Lump Sum allowances.
  - 2. Quantity allowances.
- C. Related Requirements:
  - 1. Section 012200 "Unit Prices" for procedures for using unit prices.

#### 1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when work performed under Allowances provisions must be commenced to avoid delaying the Work. Include this information in the Project Schedule.

#### 1.4 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders when required by Architect.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.6 COORDINATION

- A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.7 LUMP SUM AND QUANTITY ALLOWANCES

- A. Allowance shall include all costs to Contractor for materials, labor, freight, delivery, overhead profit, markups and all other costs to complete the work described in the Allowance.
- B. Contractor shall provide Work in the Allowances under same provisions as for all other requirements in the Work.
- C. Allowances are used only at the discretion of the Owner. The contractor shall not implement Work under the Allowances unless directed by the Architect. Allowances are part of the base scope of Work and are in addition to Work indicated elsewhere in the Documents.

1.8 FINAL ADJUSTMENT OF ALLOWANCES

- A. Prior to issuing Final Application for Payment credit the total value of all unused Allowances to Owner by Change Order.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.2 SCHEDULE OF ALLOWANCES

- A. See Section 012200 Unit Prices for complete descriptions of Work included under applicable Allowances.

Lump Sum Allowances.

Item	Description	Amount
LS-1	Building Permit fees, in total, for required permits	\$5,000

Quantity Allowances.

Description	Unit Measure	Unit Qty.
Unit Price Q-1: New toilet seat	1 ea.	10
Unit Price Q-2: New toilet seat spacers	1 pack (for 1 toilet seat)	6
Unit Price Q-3: New under-lavatory plumbing guard (P-trap)	1 ea.	10
Unit Price Q-4: New 4"x4" ceramic wall tile	10 sf	6
Unit Price Q-5: New coat hook	1 ea.	6
Unit Price Q-6: New frameless mirror	20 sf	5
Unit Price Q-7: New interior paint on existing GWB wall	100 sf	10
Unit Price Q-8: New door closer	1 ea.	15
Unit Price Q-9: New countertop support brackets	1 ea.	5
Unit Price Q-10: New wall molding at existing lay-in ceiling system	12 lf	3

END OF SECTION 012100



## SECTION 012200 - UNIT PRICES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Sections:
  - 1. Division 1 Section "Modification Procedures" for procedures for submitting and handling Change Orders.
  - 2. Division 1 Section "Allowances".

#### 1.3 DEFINITIONS

- A. Unit price is an amount proposed by bidders, as stated on the Bid Form, and is a price per unit of Work including materials, labor and/or services added to or deducted from the contract sum by appropriate modification, if quantities of work required the contract documents are increased or decreased.

#### 1.4 PROCEDURES

- A. Unit prices include all necessary materials and labor, plus cost for delivery, freight installation, insurance, applicable taxes, overhead, and profit.
- B. The unit price provided by the Contractor shall be used for Work added or deducted to the contract.
- C. The Owner reserves the right to revise the quantities (increase or decrease) listed in the Allowances for any unit price Work utilizing the unit cost provided by the Contractor on the Bid Form.
- D. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- E. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- F. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.



PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

- A. Unit Price Q-1: New toilet seat.
  - 1. Description: Demolish existing toilet seat. Provide and install new toilet seat to accommodate existing water closet.
  - 2. Unit of Measurement: ea.
  
- B. Unit Price Q-2: New toilet seat spacers.
  - 1. Description: Remove existing toilet seat and save for re-use. Provide and install new spacers to achieve indicated ADA toilet seat height. Re-install existing toilet seat.
  - 2. Unit of Measurement: 1 set (as required for 1 toilet seat)
  
- C. Unit Price Q-3: New under-lavatory plumbing guard (P-trap).
  - 1. Description: Provide and install new under-lavatory plumbing guard (P-trap).
  - 2. Unit of Measurement: ea.
  
- D. Unit Price Q-4: New 4"x4" ceramic wall tile.
  - 1. Description: Provide and install new ceramic wall tile, size to match existing (4"x4", field verify dimensions). Color to be selected by Architect from the manufacturer's full range.
  - 2. Unit of Measurement: 10 sf
  
- E. Unit Price Q-5: New coat hook.
  - 1. Description: Provide and install new coat hook.
  - 2. Unit of Measurement: ea.
  
- F. Unit Price Q-6: New frameless mirror.
  - 1. Description: Provide and install new frameless mirror.
  - 2. Unit of Measurement: 20 sf
  
- G. Unit Price Q-7: New interior paint on existing GWB walls.
  - 1. Description: Provide and install new paint on existing GWB walls.
  - 2. Unit of Measurement: 100 sf
  
- H. Unit Price Q-8: New door closer.
  - 1. Description: Demolish existing door closer. Provide and install new door closer to provide the required ADA door opening force and closing speed.
  - 2. Unit of Measurement: 1 ea.
  
- I. Unit Price Q-9: New countertop support bracket.
  - 1. Description: Demolish existing support brackets. Provide and install new countertop support brackets, painted. Load capacity 1100 lbs., factory primed gray, Hebgo by Hafele 287.45.459 or approved equal. Install wood blocking in existing metal stud framed wall for each bracket, repair GWB and paint to match existing.

2. Unit of Measurement: 1 ea.
- J. Unit Price Q-10: New wall molding at existing lay-in ceiling system.
1. Description: Demolish existing wall molding. Provide and install new wall molding to accommodate new work and to match existing lay-in ceiling system.
  2. Unit of Measurement: 12 lf.

END OF SECTION 012200



## SECTION 012300 - ALTERNATES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

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

#### 1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
  - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

#### 1.4 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION

### 3.1 SCHEDULE OF ALTERNATES

- A. Alternate No. G1: Swing Door Operator (Preferred brand alternate).
  - 1. Base Bid: Provide swing door operator as specified in Division 8.
  - 2. Alternate: Provide AutoEntry Control door operator by Security Door Controls (SDC) with push plates in lieu of swing door operator components by other acceptable manufacturer.
  
- B. Alternate No. G2: Single ADA Water Cooler (Drinking Fountain) with Bottle Filling Station (Preferred brand alternate).
  - 1. Base Bid: Provide ADA water cooler (drinking fountain), approved equal to preferred brand alternate.
  - 2. Alternate: Provide EZH2O bottle filling station with single ADA water cooler, non-filtered 8 GPH stainless by Elkay in lieu of ADA water cooler (drinking fountain) by other acceptable manufacturer.
  
- C. Alternate No. G3: Sensor Operated Faucet (Preferred brand alternate).
  - 1. Base Bid: Provide sensor operated faucet, approved equal to preferred brand alternate.
  - 2. Alternate: Provide Z6950-XL Aqua-Fit faucet by Zurn in lieu of sensor operated faucet by other acceptable manufacturer.
  
- D. Alternate No. G4: Sensor Operated Retrofit Kit for Water Closet and Urinal Flush Valve (Preferred brand alternate).
  - 1. Base Bid: Provide sensor operated retrofit kit for water closet and urinal flush valve, approved equal to preferred brand alternate.
  - 2. Alternate: Provide Sloan EL-700A retrofit kit for water closet and urinal flush valve by Sloan in lieu of sensor operated retrofit kit for water closet and urinal flush valve by other acceptable manufacturer.
  
- E. Alternate No. G5: Concealed Sensor Operated Water Closet Flush Valve (Preferred brand alternate).
  - 1. Base Bid: Provide concealed sensor operated water closet flush valve, approved equal to preferred brand alternate.
  - 2. Alternate: Provide Sloan Royal 150 ESS-3.5 water closet flush valve by Sloan in lieu of sensor operated retrofit kit for water closet and urinal flush valve by other acceptable manufacturer.
  
- F. Alternate No. G6: Automated Feminine Hygiene Dispenser (Preferred brand alternate).
  - 1. Base Bid: Provide automated feminine hygiene dispenser as specified in Division 10.
  - 2. Alternate: Provide EVNT3-SS no-touch menstrual care dual vendor, stainless steel by Evogen in lieu of automated feminine hygiene dispenser by other acceptable manufacturer.
  
- G. Alternate No. G7: Combination Automated Towel Dispenser / Waste Receptacle (Preferred brand alternate).
  - 1. Base Bid: Provide combination automated towel dispenser / waste receptacle as specified in Division 10.
  - 2. Alternate: Provide combination enMotion 59466 recessed automated towel dispenser, stainless steel / 59491 trash receptacle, stainless steel by Georgia-Pacific in lieu of combination automated towel dispenser / waste receptacle by other acceptable manufacturer.
  
- H. Alternate No. G8: Automated Soap Dispenser (Preferred brand alternate).
  - 1. Base Bid: Provide automated soap dispenser as specified in Division 10.
  - 2. Alternate: Provide enMotion automated soap and sanitizer dispenser, stainless steel by Georgia-Pacific in lieu of automated soap dispenser by other acceptable manufacturer.

END OF SECTION 012300

## SECTION 012600 - MODIFICATION PROCEDURES

### PART 1 – GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Related Documents: Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification sections, apply to work specified in this section.

#### 1.2 SUMMARY

- A. This section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections:
  - 1. General Conditions to the Contract.
  - 2. Division 1 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after award of the Contract.

#### 1.3 MINOR CHANGES IN THE WORK

- A. Minor changes in the Work, not involving an adjustment to the Contract Sum or Contract Time, will be authorized by the Architect. If a form is required for documentation of minor changes, AIA form G710 – Architect's Supplemental Instruction, or other mutually agreed upon form, will be used.

#### 1.4 CHANGE ORDER PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Proposed changes in the Work that will require an adjustment to the Contract Sum or Contract Time will be issued by the Architect, with a description of the proposed change and supplemental or revised Drawings and Specifications, if necessary.
  - 1. Proposal requests issued by the Architect are for information only. Do not consider them an instruction either to stop work in progress, or to execute the proposed change.
  - 2. Unless otherwise indicated in the proposal request, within 10 days of receipt of the proposal request, submit to the Architect for the Owner's review an estimate of cost necessary to execute the proposed change. Include, with the submittal, a list of: the quantities of products to be purchased and unit costs tabulated to reflect the total amount of purchases, the quantities and rates reflecting labor involved, applicable taxes, delivery charges, equipment rental and amounts of trade discounts. Include appropriate credit for any work of the Contract no longer required as a result of the proposed change. Include amounts reflecting overhead and profit, as addressed in the Owner-Contractor Agreement. Include a statement indicating the net effect the proposed change will have on the Contract Sum and Contract Time.
- B. Contractor-Initiated Change Order Proposal Requests: When latent or other unforeseen conditions require modifications to the Contract, the Contractor may propose changes by submitting a request for a change to the Architect.
  - 1. Include a statement outlining the reasons for the change and the effect of the change on the Work. Provide a comprehensive description of the proposed change.

2. Submit to the Architect for the Owner's review an estimate of cost necessary to execute the proposed change. Include, with the submittal, a list of: the quantities of products to be purchased and unit costs tabulated to reflect the total amount of purchases, the quantities and rates reflecting labor involved, applicable taxes, delivery charges, equipment rental and amounts of trade discounts. Include appropriate credit for any work of the Contract no longer required as a result of the proposed change. Include amounts reflecting *overhead and profit, as addressed in the Owner-Contractor Agreement*. Include a statement indicating the net effect the proposed change will have on the Contract Sum and Contract Time.
3. Comply with the requirements in Section "Products and Substitutions" if the proposed change in the Work requires the substitution of one product or system for a product or system specified.

#### 1.5 PROPOSAL REQUEST FORM

- A. Proposal Request Form: AIA Document G709 will be submitted for Change Order Proposal Requests, along with all required pertinent and complete data as stated above.

#### 1.6 CHANGE ORDER PROCEDURES

- A. Upon the Owner's approval of a Change Order Proposal Request, the Architect will issue a Change Order on AIA Form G701 for signature of the Owner and Contractor, as provided for in the Conditions of the Contract. Accompanying the form will be copies of all required pertinent and complete data from the Contractor, submitted as previously stated.

#### 1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: When the Owner and Contractor are not in total agreement on the terms of a Change Order Proposal Request, the Architect may issue a Construction Change Directive on AIA Form G714, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
  1. The Construction Change Directive will contain a complete description of the change in the Work and designate the method to be followed to determine change in the Contract Sum or Contract Time.
- B. Documentation: Maintain detailed records on time and material basis of work required by the Construction Change Directive.
  1. After completion of this change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

END OF SECTION 012600

## SECTION 012900 - PAYMENT PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections:
  - 1. Division 1 Section "Modification Procedures" for administrative procedures for handling changes to the Contract.
  - 2. Division 1 Section "Unit Prices" for administrative requirements governing the use of unit prices.
  - 3. Division 1 Section "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of Contractor's construction schedule.
  - 4. Division 1 Section "Submittal Procedures" for administrative requirements governing the preparation and submittal of submittal schedule.

#### 1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

#### 1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
  - 1. Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:
    - a. Application for Payment forms with continuation sheets.
    - b. Submittal schedule.
    - c. Items required to be indicated as separate activities in Contractor's construction schedule.
  - 2. Submit the schedule of values to Architect at earliest possible date but no later than **seven** days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
  - 1. Identification: Include the following Project identification on the schedule of values:
    - a. Project name and location.



- b. Name of Architect.
  - c. Contractor's name and address.
  - d. Date of submittal.
2. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
- a. Related Specification Section or Division.
  - b. Description of the Work.
  - c. Name of subcontractor.
  - d. Name of manufacturer or fabricator.
  - e. Name of supplier.
  - f. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
    - 1) Labor.
    - 2) Materials.
    - 3) Equipment.
3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of **five** percent of Contract Sum.
- a. Include separate line items under Contractor and principal subcontracts for LEED documentation and other project closeout requirements in an amount totaling five percent of the Contract Sum and subcontract amount.
4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored **on-site**, but not yet installed.
6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
7. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
- a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.

#### 1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
  - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: Progress payments shall be submitted to Architect by the 5th of the month. The period covered by each Application for Payment is one month, ending on the last day of the month.
- C. Application for Payment Forms: Use forms acceptable to Architect and Owner for Applications for Payment. Submit forms for approval with initial submittal of schedule of values.

- D. **Application Preparation:** Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
  2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
  3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
  4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- E. **Stored Materials:** Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored **on-site**, but not yet installed.
1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
  2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
  3. Provide summary documentation for stored materials indicating the following:
    - a. Materials previously stored and included in previous Applications for Payment.
    - b. Work completed for this Application utilizing previously stored materials.
    - c. Additional materials stored with this Application.
    - d. Total materials remaining stored, including materials with this Application.
- F. **Transmittal:** Submit four signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- G. **Initial Application for Payment:** Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
  2. Schedule of values.
  3. Contractor's construction schedule (preliminary if not final).
  4. Submittal schedule (preliminary if not final).
- H. **Application for Payment at Substantial Completion:** After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
  2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. **Final Payment Application:** Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evidence of completion of Project closeout requirements.
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
6. AIA Document G707, "Consent of Surety to Final Payment."

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

## SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. Coordination Drawings.
  - 2. Administrative and supervisory personnel.
  - 3. Project meetings.
- B. Related Sections include the following:
  - 1. Division 1 Section "Construction Progress Documentation" for preparing and submitting Contractor's Construction Schedule.
  - 2. Division 1 Section "Closeout Procedures" for coordinating closeout of the Contract.

#### 1.3 COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
  - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
  - 1. Preparation of Contractor's Construction Schedule.
  - 2. Preparation of the Schedule of Values.
  - 3. Installation and removal of temporary facilities and controls.
  - 4. Delivery and processing of submittals.
  - 5. Progress meetings.
  - 6. Preinstallation conferences.
  - 7. Startup and adjustment of systems.
  - 8. Project closeout activities.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

#### 1.4 SUBMITTALS

- A. Key Personnel Names: Within 5 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
  1. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

#### 1.5 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.

#### 1.6 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated. The architect is to establish and conduct both the pre-construction and progress meetings.
  1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner of scheduled meeting dates and times.
  2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner, within three days of the meeting.
- B. Preconstruction Conference: Architect will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect.
  1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Tentative construction schedule.
    - b. Critical work sequencing and long-lead items.
    - c. Designation of key personnel and their duties.
    - d. Procedures for processing field decisions and Change Orders.
    - e. Procedures for RFIs.
    - f. Procedures for testing and inspecting.
    - g. Procedures for processing Applications for Payment.
    - h. Distribution of the Contract Documents.
    - i. Submittal procedures.
    - j. Preparation of Record Documents.
    - k. Use of the premises.
    - l. Work restrictions.
    - m. Responsibility for temporary facilities and controls.
    - n. Construction waste management and recycling.

- o. Parking availability.
  - p. Office, work, and storage areas.
  - q. Equipment deliveries and priorities.
  - r. First Aid.
  - s. Security.
  - t. Progress cleaning.
  - u. Working hours.
3. Minutes: Architect will record and distribute meeting minutes.
- C. Progress Meetings: Architect will conduct progress meetings at **weekly** intervals. Coordinate dates of meetings with preparation of payment requests.
- 1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  - 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
      - 1) Review schedule for next period.
    - b. Review present and future needs of each entity present, including the following:
      - 1) Interface requirements.
      - 2) Sequence of operations.
      - 3) Status of submittals.
      - 4) Deliveries.
      - 5) Off-site fabrication.
      - 6) Access.
      - 7) Site utilization.
      - 8) Temporary facilities and controls.
      - 9) Work hours.
      - 10) Hazards and risks.
      - 11) Progress cleaning.
      - 12) Quality and work standards.
      - 13) Status of correction of deficient items.
      - 14) Field observations.
      - 15) RFIs.
      - 16) Status of proposal requests.
      - 17) Pending changes.
      - 18) Status of Change Orders.
      - 19) Pending claims and disputes.
      - 20) Documentation of information for payment requests.
  - 3. Minutes: Architect will record and distribute the meeting minutes.
  - 4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.

- a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

## SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
  - 1. Startup construction schedule.
  - 2. Contractor's construction schedule.
  - 3. Construction schedule updating reports.
  - 4. Daily construction reports.
  - 5. Material location reports.
  - 6. Site condition reports.
  - 7. Special reports.
- B. Related Requirements:
  - 1. Section 013300 "Submittal Procedures" for submitting schedules and reports.
  - 2. Section 014000 "Quality Requirements" for submitting a schedule of tests and inspections.

#### 1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
  - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
  - 2. Predecessor Activity: An activity that precedes another activity in the network.
  - 3. Successor Activity: An activity that follows another activity in the network.
- B. Cost Loading: The allocation of the schedule of values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum unless otherwise approved by Architect.
- C. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- E. Event: The starting or ending point of an activity.



- F. Float: The measure of leeway in starting and completing an activity.
  - 1. Float time belongs to Owner.
  - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
  - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- G. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
  - 1. Cover letter.
  - 2. Narrative.
    - a. State activity changes, including missing data, upcoming changes, documented delays, potential delays and other facts.
  - 3. Working electronic copy of schedule file, where indicated.
  - 4. PDF electronic file.
  - 5. Four paper copies.
- B. Startup construction schedule.
  - 1. Approval of cost-loaded, startup construction schedule will not constitute approval of schedule of values for cost-loaded activities.
- C. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.
- D. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
  - 1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.
- E. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
  - 1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
  - 2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
  - 3. Total Float Report: List of all activities sorted in ascending order of total float.
  - 4. Earnings Report: Compilation of Contractor's total earnings from the Notice to Proceed until most recent Application for Payment.
- F. Construction Schedule Updating Reports: Submit with Applications for Payment, and at each Progress Meeting.
- G. Daily Construction Reports: Submit at monthly intervals.

- H. Material Location Reports: Submit at monthly intervals.
- I. Site Condition Reports: Submit at time of discovery of differing conditions.
- J. Special Reports: Submit at time of unusual event.
- K. Qualification Data: For scheduling consultant.

#### 1.5 QUALITY ASSURANCE

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of Architect's request.
- B. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to the preliminary construction schedule and Contractor's construction schedule, including, but not limited to, the following:
  - 1. Review software limitations and content and format for reports.
  - 2. Verify availability of qualified personnel needed to develop and update schedule.
  - 3. Discuss constraints, including phasing, work stages, area separations, interim milestones and partial Owner occupancy.
  - 4. Review delivery dates for Owner-furnished products.
  - 5. Review schedule for work of Owner's separate contracts.
  - 6. Review submittal requirements and procedures.
  - 7. Review time required for review of submittals and resubmittals.
  - 8. Review requirements for tests and inspections by independent testing and inspecting agencies.
  - 9. Review time required for Project closeout and Owner startup procedures.
  - 10. Review and finalize list of construction activities to be included in schedule.
  - 11. Review procedures for updating schedule.

#### 1.6 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
  - 1. Secure time commitments for performing critical elements of the Work from entities involved.
  - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

### PART 2 - PRODUCTS

#### 2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion.
  - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each main element of the Work. Comply with the following:

1. Activity Duration: Define activities so no activity is longer than 14 calendar days, unless specifically allowed by Architect.
  2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule, including but not limited to the following. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
    - a. Owner supplied materials.
  3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
  4. Startup and Testing Time: Include no fewer than 15 days for startup and testing.
  5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
  6. Punch List and Final Completion: Include not more than 15 days for completion of punch list items and final completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
  2. Work under More Than One Contract: Include a separate activity for each contract.
  3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
  4. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
  5. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
  6. Work Restrictions: Show the effect of the following items on the schedule:
    - a. Coordination with existing construction.
    - b. Limitations of continued occupancies.
    - c. Uninterruptible services.
    - d. Partial occupancy before Substantial Completion.
    - e. Use of premises restrictions.
    - f. Provisions for future construction.
    - g. Seasonal variations.
    - h. Environmental control.
  7. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
    - a. Subcontract awards.
    - b. Submittals.
    - c. Purchases.
    - d. Mockups.
    - e. Fabrication.
    - f. Sample testing.
    - g. Deliveries.
    - h. Installation.
    - i. Tests and inspections.
    - j. Adjusting.
    - k. Curing.

- l. Building flush-out.
  - m. Startup and placement into final use and operation.
8. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
- a. Structural completion.
  - b. Temporary enclosure and space conditioning.
  - c. Permanent space enclosure.
  - d. Completion of mechanical installation.
  - e. Completion of electrical installation.
  - f. Substantial Completion.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion, and the following interim milestones:
- 1. Temporary enclosure and space conditioning.
  - 2. Road closure and reopening.
- E. Cost Correlation: Superimpose a cost correlation timeline, indicating planned and actual costs. On the line, show planned and actual dollar volume of the Work performed as of planned and actual dates used for preparation of payment requests.
- 1. See Section 012900 "Payment Procedures" for cost reporting and payment procedures.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
- 1. Unresolved issues.
  - 2. Unanswered Requests for Information.
  - 3. Rejected or unreturned submittals.
  - 4. Notations on returned submittals.
  - 5. Pending modifications affecting the Work and Contract Time.
- G. Recovery Schedule: When periodic update indicates the Work is 30 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
- 2.2 STARTUP CONSTRUCTION SCHEDULE
- A. See Startup Network Diagram specified in this Section.
- 2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE)
- A. General: Prepare network diagrams using AON (activity-on-node) format.

- B. Startup Network Diagram: Submit diagram within 5 days of date established for the Notice to Proceed. Outline significant construction activities for the first 90 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's construction schedule using a cost- and resource-loaded, time-scaled CPM network analysis diagram for the Work.
1. Develop network diagram and submit CPM schedule no later than 15 days after date established for the Notice to Proceed so it can be accepted for use no later than 30 days after date established for the Notice to Proceed.
    - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of Architect's approval of the schedule.
    - b. Contractor shall sign the accepted schedule and display the original, signed schedule at the Project site. Contractor shall distribute copies of the signed schedule to the Architect and Owner.
  2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
  3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
  4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule in order to coordinate with the Contract Time.
- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
    - a. Preparation and processing of submittals.
    - b. Pre-installation conferences.
    - c. Mobilization and demobilization.
    - d. Purchase of materials.
    - e. Delivery.
    - f. Fabrication.
    - g. Utility interruptions.
    - h. Installation.
    - i. Work by Owner that may affect or be affected by Contractor's activities.
    - j. Testing and inspections.
    - k. Punch list and final completion.
    - l. Activities occurring following final completion.
  2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
  3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
  4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
    - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.

5. Cost- and Resource-Loading of CPM Schedule: Assign cost to construction activities on the CPM schedule. Do not assign costs to submittal activities. Obtain Architect's approval prior to assigning costs to fabrication and delivery activities. Assign costs under main subcontracts for testing and commissioning activities, operation and maintenance manuals, punch list activities, Project record documents, and demonstration and training (if applicable), in the amount of 5 percent of the Contract Sum.
  - a. Each activity cost shall reflect an appropriate value subject to approval by Architect.
  - b. Total cost assigned to activities shall equal the total Contract Sum.
  
- E. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall project schedule.
  
- F. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
  1. Contractor or subcontractor and the Work or activity.
  2. Description of activity.
  3. Main events of activity.
  4. Immediate preceding and succeeding activities.
  5. Early and late start dates.
  6. Early and late finish dates.
  7. Activity duration in workdays.
  8. Total float or slack time.
  9. Average size of workforce.
  10. Dollar value of activity (coordinated with the schedule of values).
  
- G. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
  1. Identification of activities that have changed.
  2. Changes in early and late start dates.
  3. Changes in early and late finish dates.
  4. Changes in activity durations in workdays.
  5. Changes in the critical path.
  6. Changes in total float or slack time.
  7. Changes in the Contract Time.
  
- H. Value Summaries: Prepare two cumulative value lists, sorted by finish dates.
  1. In first list, tabulate activity number, early finish date, dollar value, and cumulative dollar value.
  2. In second list, tabulate activity number, late finish date, dollar value, and cumulative dollar value.
  3. In subsequent issues of both lists, substitute actual finish dates for activities completed as of list date.
  4. Prepare list for ease of comparison with payment requests; coordinate timing with progress meetings.
    - a. In both value summary lists, tabulate "actual percent complete" and "cumulative value completed" with total at bottom.
    - b. Submit value summary printouts one week before each regularly scheduled progress meeting.

## 2.4 CONTRACTOR'S COMPLETION CONSTRUCTION SCHEDULE (CPM SCHEDULE)

- A. Submit completion schedule no later than 7 days before 80% project completion, including tasks remaining to complete the project so it can be accepted for use at no later than 80% project completion. Prepare Completion Schedule as specified in Contractor's Construction Schedule in this Section.

## 2.5 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site.

1. List of subcontractors at Project site.
2. List of separate contractors at Project site.
3. Approximate count of personnel at Project site.
4. Equipment at Project site.
5. Material deliveries.
6. High and low temperatures and general weather conditions, including presence of rain or snow.
7. Accidents.
8. Meetings and significant decisions.
9. Unusual events (see special reports).
10. Stoppages, delays, shortages, and losses.
11. Meter readings and similar recordings.
12. Emergency procedures.
13. Orders and requests of authorities having jurisdiction.
14. Change Orders received and implemented.
15. Construction Change Directives received and implemented.
16. Services connected and disconnected.
17. Equipment or system tests and startups.
18. Partial completions and occupancies.
19. Substantial Completions authorized.

- B. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site. Indicate the following categories for stored materials:

1. Material stored prior to previous report and remaining in storage.
2. Material stored prior to previous report and since removed from storage and installed.
3. Material stored following previous report and remaining in storage.

- C. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

## 2.6 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day(s) of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events,

persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

## PART 3 - EXECUTION

### 3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Scheduling Consultant: Engage a consultant to provide planning, evaluation, and reporting using CPM scheduling.
  - 1. In-House Option: Owner may waive the requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.
  - 2. Meetings: Scheduling consultant shall attend all meetings related to Project progress, alleged delays, and time impact.
- B. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
  - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  - 3. As the Work progresses, indicate final completion percentage for each activity.
- C. Distribution: Distribute copies of approved schedule to Architect, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
  - 1. Post copies in Project meeting rooms and temporary field offices.
  - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200





## SECTION 013300 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.
- B. Related Sections include the following:
  - 1. Division 1 Section "Modification Procedures" for submitting Applications for Payment.
  - 2. Division 1 Section "Project Management and Coordination".
  - 3. Division 1 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's Construction Schedule.
  - 4. Division 1 Section "Closeout Procedures" for submitting warranties Project Record Documents and operation and maintenance manuals.

#### 1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's responsive action.
- B. Informational Submittals: Written information that does not require Architect's approval. Submittals may be rejected for not complying with requirements.

#### 1.4 SUBMITTAL PROCEDURES

- A. General: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by Architect for Contractor's use in preparing submittals.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
- C. Submittals Schedule: At the initiation of construction, prepare and submit to the Architect a 'Schedule of Submittals', showing a complete list of the submittals as required by the construction documents. The list should indicate which type of submittal is required and from which specification section or drawing that indicates the submittal is required. Submit within **3** days after Notice to Proceed is issued. Where appropriate in administrative submittals (listing of products, manufacturers, suppliers and subcontractors, and in job progress schedule), show principal work-related submittals and time requirements for coordination of submittal activity with related work in each instance.

Provide all interior finish submittals, including samples, at one time for Designer and Owner review and selection.

- D. Processing Time: Allow adequate time for submittal review, including time for resubmittals, according to approved schedule. Prepare and submit submittals incorporating time required for processing and approving without affecting Contractor's purchasing requirements.

- E. Identification: Place a permanent label or title block on each submittal for identification.
  - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
  - 2. Provide a space of appropriate size on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
  - 3. Include the following information on label for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name and address of Contractor.
    - d. Name and address of subcontractor.
    - e. Name and address of supplier or vendor.
    - f. Name of manufacturer.
    - g. Unique identifier, including revision number.
    - h. Number and title of appropriate Specification Section.
    - i. Other necessary identification.
- F. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
- G. Number of Copies: Except as noted otherwise in this section, submit sufficient number of copies of each submittal to perform the Work, maintain records and to distribute to relevant parties. Architect will retain a minimum of two copies of each submittal and will retain additional copies when submittal is to be reviewed by Architect's sub-consultant.
- H. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
  - 1. Initial submittals shall include sufficient copies such that approved copies are included with the closeout documents.
- I. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will discard submittals, without review, received from sources other than Contractor.
  - 1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.
  - 2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
  - 3. Transmittal Form: Use Contractor's standard form.
- J. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- K. Use for Construction: Use only final submittals with mark indicating action taken by Architect in connection with construction.

## PART 2 - PRODUCTS

### 2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.

1. Number of Copies: Submit a minimum of five copies of each submittal, unless otherwise indicated. The Architect will retain two copies of all submittals except that three copies will be retained when review by a consultant of the Architect's is required including but not limited to plumbing, mechanical and electrical submittals. All other copies will be returned to the Contractor. Mark up and retain one returned copy as a Project Record Document.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
  2. Mark each copy of each submittal to show which products and options are applicable.
  3. Include the following information, as applicable:
    - a. Manufacturer's written recommendations.
    - b. Manufacturer's product specifications.
    - c. Manufacturer's installation instructions.
    - d. Standard color charts.
    - e. Manufacturer's catalog cuts.
    - f. Wiring diagrams showing factory-installed wiring.
    - g. Standard product operating and maintenance manuals.
    - h. Compliance with recognized trade association standards.
    - i. Compliance with recognized testing agency standards.
    - j. Application of testing agency labels and seals.
    - k. Notation of coordination requirements.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Include the following information, as applicable:
    - a. Dimensions.
    - b. Identification of products.
    - c. Fabrication and installation drawings.
    - d. Roughing-in and setting diagrams.
    - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
    - f. Schedules.
    - g. Design calculations.
    - h. Compliance with specified standards.
    - i. Notation of coordination requirements.
    - j. Notation of dimensions established by field measurement.
  2. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
  3. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.
  4. Number of Copies: Submit blue- or black-line prints of each submittal, unless prints are required for operation and maintenance manuals. Submit additional prints where prints are required for operation and maintenance manuals. See number of submittal requirements above.
- D. Samples: Prepare physical units of materials or products, including the following:
1. Comply with requirements in Divisions 2 through 16 for mockups.
  2. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
  3. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Architect's sample where so indicated. Attach label on unexposed side that includes the following:
    - a. Generic description of Sample.
    - b. Product name or name of manufacturer.

- c. Sample source.
  - 4. Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, provide the following:
    - a. Size limitations.
    - b. Compliance with recognized standards.
    - c. Availability.
    - d. Delivery time.
  - 5. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
    - a. If variation in color, pattern, texture, or other characteristic is inherent in the product represented by a Sample, submit at least three sets of paired units that show approximate limits of the variations.
    - b. Refer to individual Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
  - 6. Number of Samples for Initial Selection: Submit two full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will forward final selections in writing to Contractor.
  - 7. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
    - a. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
  - E. Product Schedule or List: Prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
    - 1. Type of product. Include unique identifier for each product.
    - 2. Number and name of room or space.
    - 3. Location within room or space.
    - 4. See additional requirements in Division 1 Section "Products Requirements."
  - F. Application for Payment: Comply with requirements in "General Conditions."
  - G. Schedule of Values: Comply with requirements in Division 1 Section "Construction Progress Documentation."
  - H. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
    - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
    - 2. Number and title of related Specification Section(s) covered by subcontract.
    - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- 2.2 INFORMATIONAL SUBMITTALS
- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
    - 1. Number of Copies: Submit five copies of each submittal, unless otherwise indicated.
    - 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

3. Test and Inspection Reports: Comply with requirements in Division 1 Section "Procedures and Performances."
- B. Contractor's Construction Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."
- C. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- D. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- E. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- F. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- G. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- H. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 1 Section "Closeout Procedures."
- I. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
  1. Preparation of substrates.
  2. Required substrate tolerances.
  3. Sequence of installation or erection.
  4. Required installation tolerances.
  5. Required adjustments.
  6. Recommendations for cleaning and protection.
- J. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.

## PART 3 - EXECUTION

### 3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

### 3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
  - 1. No Exceptions
  - 2. Make Corrections Noted
  - 3. Amend and Re-submit
  - 4. Rejected
- C. Submittals must be forwarded to the Architect only.
- D. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300

## SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
  - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

#### 1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- B. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage.
  - 1. Describe delivery, handling, and storage provisions for materials subject to water absorption or water damage.
  - 2. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
  - 3. Indicate sequencing of interior work that requires water and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.

#### 1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.



- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

## 1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil (0.25-mm) minimum thickness, with flame-spread rating of 15 or less per ASTM E 84 and passing NFPA 701 Test Method 2.
- B. Dust-Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches (914 by 1624 mm).

### 2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
  - 1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

### 3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
  - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

- B. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- C. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
  - 1. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- D. Ventilation Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations. Select equipment that will not have a harmful effect on completed installations or elements being installed.
  - 1. Provide portable fans for air movement throughout the building for needed ventilation and air circulation.
- E. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
  - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
  - 2. Where existing lighting is used as temporary lighting during construction, clean fixtures prior to final installation and install new lamps.

### 3.3 SUPPORT FACILITIES INSTALLATION

- A. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
  - 1. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
    - a. Provide temporary, directional signs for construction personnel and visitors, as indicated on Drawings.
  - 2. Maintain and touchup signs so they are legible at all times.
  - 3. Exterior signs must be weatherproof. Include post for ground signs.

### 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- C. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- D. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.

- E. The types of temporary security and protection provisions required include, but not by way of limitation, fire protection, barricades, warning signs/lights, building enclosure/lockup, theft prevention/personnel security program, and similar provisions intended to minimize property losses, personal injuries and claims for damages at project site.
- F. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

### 3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
  - 1. Protect porous materials from water damage.
  - 2. Protect stored and installed material from flowing or standing water.
  - 3. Keep porous and organic materials from coming into prolonged contact with concrete.
  - 4. Remove standing water from decks.
  - 5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
  - 1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
  - 2. Keep interior spaces reasonably clean and protected from water damage.
  - 3. Periodically collect and remove waste containing cellulose or other organic matter.
  - 4. Discard or replace water-damaged material.
  - 5. Do not install material that is wet.
  - 6. Discard, replace, or clean stored or installed material that begins to grow mold.
  - 7. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.

### 3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
  - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion.

Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000



## SECTION 016000 – PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
  - 1. Division 1 Section "Summary".
  - 2. Division 1 Section "Closeout Procedures" for submitting warranties for Contract closeout.
  - 3. Divisions 2 through 28 Sections for specific requirements for warranties on products and installations specified to be warranted.

#### 1.3 DEFINITIONS

- A. General: Definitions used in this Article are not intended to change or modify the meaning of other terms used in the Contract Documents.
- B. Products: "Products" is defined to include purchased items for incorporation into the Work, regardless of whether specifically purchased for project or taken from Contractor's stock of previously purchased products. "Materials", is defined as products which must be substantially cut, shaped, worked, mixed, finished, refined or otherwise fabricated, processed, installed or applied to form units of work. "Equipment" is defined as products with operational parts, regardless of whether motorized or manually operated, and particularly including products with service connections (wiring, piping, etc.). Definitions in this paragraph are not intended to negate the meaning of other terms used in contract documents, including "specialties", "systems", "structure", "finishes", "accessories", "furnishings", "special construction", and similar terms, which are self-explanatory and have recognized meanings in the construction industry.
- C. Substitutions: The requirements for substitutions do not apply to specified Contractor options on products and construction methods. Revisions to contract documents, where requested by Architect on behalf of Owner or Engineer, are "changes" not "substitutions". Requested substitutions approved during bidding period or resulting from negotiations which have been accepted prior to Contract Date, are included as part of the contract documents. Contractor's determination of and compliance with governing regulations and orders issued by governing authorities do not constitute "substitutions"; and do not constitute a basis for change orders, except as provided for in contract documents. Otherwise, Contractor's requests for changes in products, materials and methods of construction required by contract documents are considered requests for "substitutions", and are subject to requirements hereof.

#### 1.4 SUBMITTALS

- A. Requests for Substitutions: As addressed in PART 2 - PRODUCTS, of this Section, submit 3 copies, fully identified for product or method proposed to be replaced by substitution, including related specification section and drawing number(s), and fully documented to show compliance with requirements for substitutions. Include product data/drawings, description of methods, samples where applicable, Contractor's detailed comparison of significant qualities between specified item and proposed substitution, statement of effect on construction time and coordination with other affected work, cost information or proposal, and Contractor's statement to the effect that proposed substitutions will result in overall work equal-to-or-better-than work originally indicated.
- B. Nameplates: Except as otherwise indicated for required approval labels, and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on exterior of the work.
  - 1. Labels: Locate required labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface which, in occupied spaces, is not conspicuous.
  - 2. Equipment Nameplates: Provide permanent nameplate on each item of service-connected or power operated equipment. Indicate manufacturer, product name, model number, serial number, capacity, speed, ratings and similar essential operating data. Locate nameplates on an easily accessed surface which, in occupied spaces, is not conspicuous.

#### 1.5 QUALITY ASSURANCE

- A. Source Limitations: To the greatest extent possible, provide products, materials and equipment of singular generic kind and from a single source.
- B. Compatibility of Options: Where more than one choice is available as options for Contractor's selection of a product or material, select an option which is compatible with other products and materials already selected (which may have been from among options for those other products and materials). Total compatibility among options is not assured by limitations within contract documents, but must be provided by Contractor. Compatibility is a basic general requirement of product/material selections.

#### 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. General: Deliver, handle and store products in accordance with manufacturer's recommendations and by methods and means which will prevent damage, deterioration, and loss including theft. Control delivery schedules to minimize longterm storage of products at site and overcrowding of construction spaces. In particular, provide delivery/installation coordination to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other sources of loss.

#### 1.7 PRODUCT WARRANTIES (GUARANTEES)

- A. Manufacturer's disclaimers and limitations on product warranties do not relieve the Contract of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

- B. Categories of Specific Warranties: Warranties on the work are in several categories, including those of General Conditions, and including (but not necessarily limited to) the following specific categories related to individual units of work specified in sections of Divisions 2 through 16 of these specifications:
1. Special Project Warranty (Guarantee): A warranty specifically written and signed by Contractor for a defined portion of the work; and, where required, countersigned by subcontractor, installer, manufacturer or other entity engaged by Contractor.
  2. Specified Product Warranty: A warranty which is required by contract documents, to be provided for a manufactured product incorporated into the work; regardless of whether manufacturer has published warranty without regard for specific incorporations of product into the work, or has written and executed warranty as a direct result of contract document requirements.
  3. Coincidental Product Warranty: A warranty which is not specifically required by contract documents (other than as specified in this Section); but which is available on a that manufacturer of product has published warranty in connection with purchases and uses of product without regard for specific applications except as otherwise limited by terms of warranty.
- C. Refer to individual sections of Divisions 2 through 16 for the determination of units of work which are required to be specifically or individually warranted, and for the specific requirements and terms of those warranties (or guarantees).
- D. Related Damages and Losses: In connection with Contractor's correction of warranted work which has failed, remove and replace other work of project which has been damaged as a result of such failure, or must be removed and replaced to provide access for correction of warranted work.
- E. Reinstatement of Warranty Period: Except as otherwise indicated, when work covered by a special project warranty or product warranty has failed and has been corrected by replacement or restoration, reinstate warranty by written endorsement for the following time period, starting on date of acceptance of replaced or restored work.
1. A period of time equal to original warranty period of time.
- F. Replacement Cost, Obligations: Except as otherwise indicated, costs of replacing or restoring failing warranted units or products is Contractor's obligation, without regard for whether Owner has already benefited from use through a portion of anticipated useful service lives.
- G. Owner's recourse: Expressed warranties made to the Owner are in an addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.
1. Rejection of Warranties: Owner reserves the right, at time of substantial completion or thereafter, to reject coincidental product warranties submitted by Contractor, which in opinion of Owner tend to detract from or confuse interpretation of requirements of contract documents.
- H. Contractor's Procurement Obligations: Do not purchase, subcontract for, or allow others to purchase or sub-subcontract for materials or units of work for project where a special project warranty, specified product warranty, certification or similar commitment is required, until it has been determined that entities required to countersign such commitments are willing to do so.



## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. General: The compliance requirements, for individual products as indicated in contract documents, are multiple in nature and may include generic, descriptive, proprietary, performance, prescriptive, compliance with standards, compliance with codes, conformance with graphic details and other similar forms and methods of indicating requirements, all of which must be complied with. Also "allowances" and similar provisions of contract documents will have a bearing on selection process.
- B. Procedures for Selecting Products: Contractor's options for selecting products are limited by contract document requirements, and governing regulations, and are not controlled by industry traditions or procedures experienced by Contractor on previous construction projects. Required procedures include, but are not necessarily limited to, the following for various indicated methods of specifying.
1. "Or Equal": Where named products in specifications text are accompanied by the term "or equal", or other distinct language of similar effect, comply with those contract document provisions concerning "substitutions" for obtaining Architect's/Engineer's approval (or change order) to provide an unnamed product.
  2. "Named", except as otherwise indicated, is defined to mean specific manufacturer's name for product, as recorded in published product literature, of latest issue as of date of contract documents. Refer requests to use products of a later (or earlier) model to Architect/Engineer for acceptance before proceeding.
  3. Standards, Codes and Regulations: Where compliance with an imposed standard, code or regulations is required, selection from among products which comply with requirements including those standards, codes and regulations, is Contractor's option.
  4. Performance Requirements: Provide products which comply with specific performances indicated, and which are recommended by manufacturer (in published product literature or by individual certification) for application indicated. Overall performance of a product is implied where product is specified for specific performances.
  5. Prescriptive Requirements: Provide products which have been produced in accordance with prescriptive requirements, using specified ingredients and components, and complying with specified requirements for mixing, fabricating, curing, finishing, testing and similar operations in manufacturing process.
  6. Visual Matching: Where matching of an established sample is required, final judgement of whether a product proposed by Contractor matches sample satisfactorily is Architect's judgement. Where no product which matches sample satisfactorily and complies with requirements within specified cost category is available, comply with contract document provisions concerning, "substitutions" and "change orders": for selection of a matching product outside established cost category or not complying with requirements.
  7. Visual Selection: Except as otherwise indicated, where specified product requirements include "...as selected from manufacturer's standard colors, patterns, textures..." or words of similar effect, selection of product (complying with requirements, and within established cost category) is Architect's selection, **including designation of manufacturer** where necessary to obtain desired color, pattern or texture. Where specified product requirements include "...as selected from standard colors, patterns, textures available within the industry...", or words to that effect, the selection of manufacturer and basic product (complying with requirements) is Contractor's option, and subsequent selection of color, pattern and texture is Architect's selection.

## 2.2 SUBSTITUTIONS

- A. Pre-Bid Conditions: If submitted within 5 days prior to the Bid Date, Contractor's request for substitution will be received and considered when extensive revisions to contract documents are not required and changes are in keeping with general intent of contract documents; when timely, fully documented and properly submitted; and when one or more of the following conditions is satisfied, all as judged by Architect. Otherwise, requests will be returned without action except to record non-compliance with these requirements.
1. Where request is directly related to an "or equal" clause or other language of same effect in contract documents.
  2. Where required product, material or method cannot be provided in a manner which is compatible with other materials of the work, or cannot be properly coordinated therewith, or cannot be warranted (guaranteed) as required, or cannot be used without adversely affecting Owner's insurance coverage on completed work, or will encounter other substantial non-compliances which are not possible to otherwise overcome except by making requested substitution, which Contractor thereby certifies to overcome such non-compatibility, non-coordination, non-warranty, non-insurability or other non-compliance as claimed.
  3. Where required product, material or method cannot receive required approval by a governing authority, and requested substitution can be so approved.
  4. Where substantial advantage is offered Owner, in terms of cost, time or other valuable considerations, after deducting offsetting responsibilities Owner may be required to bear, including additional compensation to Architect/Engineer for redesign and evaluation services, increased cost of other work by Owner or separate contractors, and similar considerations.
- B. Post-Bid Conditions: If submitted within 30 days after commencement of the work, Contractor's request for substitution will be received and considered when extensive revisions to contract documents are not required and changes are in keeping with general intent of contract documents; when timely, fully documented and properly submitted; and when one or more of the following conditions is satisfied, all as judged by Architect. Otherwise, requests will be returned without action except to record non-compliance with these requirements.
1. Where required product, material or method cannot be provided in a manner which is compatible with other materials of the work, or cannot be properly coordinated therewith, or cannot be warranted (guaranteed) as required, or cannot be used without adversely affecting Owner's insurance coverage on completed work, or will encounter other substantial non-compliances which are not possible to otherwise overcome except by making requested substitution, which Contractor thereby certifies to overcome such non-compatibility, non-coordination, non-warranty, non-insurability or other non-compliance as claimed.
  2. Where required product, material or method cannot receive required approval by a governing authority, and requested substitution can be so approved.
  3. Where substantial advantage is offered Owner, in terms of cost, time or other valuable considerations, after deducting offsetting responsibilities Owner may be required to bear, including additional compensation to Architect/Engineer for redesign and evaluation services, increased cost of other work by Owner or separate contractors, and similar considerations.
- C. A request for Substitution will not be received or considered when the request is made by the Contractor in order to procure a product that has a shorter lead time than the specified product, and the Contractor has failed to order the specified product in a timely manner.
- D. Work-Related Submittals: Contractor's submittal of, and Architect's/ Engineer's acceptance of, shop drawings, product data or samples which indicate work not complying with requirements of contract documents, does not constitute an acceptable and valid request for, nor approval of, a substitution.

## 2.3 GENERAL PRODUCT REQUIREMENTS

- A. General: Provide products which comply with requirements, and which are undamaged and unused at time of installation, and which are complete with accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for intended use and effect.
1. Standard Products: Where available, provide standard products of types which have been produced and used previously and successfully on other projects and in similar applications.
  2. Continued Availability: Where additional amounts of the product, by nature of its application, are likely to be needed by Owner at a later date for maintenance and repair or replacement work, provide a standard, domestically produced product which is likely to be available to Owner at such later date.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

## SECTION - 017300 - EXECUTION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Installation of the Work.
3. Cutting and patching.
4. Coordination of Owner-installed products.
5. Progress cleaning.
6. Starting and adjusting.
7. **Demonstration and instruction of Owner Personnel.**
8. Protection of installed construction.

- B. Related Requirements:

1. Section 011000 "Summary of the Work" for limits on use of Project site.
2. Section 013300 "Submittal Procedures" for submitting surveys.
3. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
4. Section 024119 "Selective Demolition" for demolition and removal of selected portions of the building.

#### 1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For land surveyor.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- C. Cutting and Patching Plan: Submit plan describing procedures at least 10 days prior to the time cutting and patching will be performed. Include the following information:
  - 1. Extent: Describe reason for and extent of each occurrence of cutting and patching.
  - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.
  - 3. Products: List products to be used for patching and firms or entities that will perform patching work.
  - 4. Dates: Indicate when cutting and patching will be performed.
  - 5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate length of time permanent services and systems will be disrupted.
    - a. Include description of provisions for temporary services and systems during interruption of permanent services and systems.
- D. Certified Surveys: Submit two copies signed by land surveyor.
- E. Final Property Survey: Submit 10 copies showing the Work performed and record survey data.

#### 1.5 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
  - 1. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
  - 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operational elements include **but are not limited to** the following:
    - a. Primary operational systems and equipment.
    - b. Fire separation assemblies.
    - c. Air or smoke barriers.

- d. Fire-suppression systems.
  - e. Mechanical systems piping and ducts.
  - f. Control systems.
  - g. Communication systems.
  - h. Fire-detection and -alarm systems.
  - i. Electrical wiring systems.
3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. Other construction elements include but are not limited to the following:
- a. Water, moisture.
  - b. Equipment supports.
  - c. Piping, ductwork, vessels, and equipment.
4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
  - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.

2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
1. Description of the Work.
  2. List of detrimental conditions, including substrates.
  3. List of unacceptable installation tolerances.
  4. Recommended corrections.
- D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility and Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.

- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
  - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
  - 2. Establish limits on use of Project site.
  - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  - 4. Inform installers of lines and levels to which they must comply.
  - 5. Check the location, level and plumb, of every major element as the Work progresses.
  - 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
  - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

### 3.4 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
  - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect before proceeding.
  - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
  - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
  - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.



3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

### 3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  1. Make vertical work plumb and make horizontal work level.
  2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
  4. Maintain minimum headroom clearance of 96 inches (2440 mm) in occupied spaces and in unoccupied spaces.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated, to whatever extent these are more explicit or more stringent than applicable requirements indicated in contract documents.
  1. Inspect each item of materials or equipment immediately prior to installation, and reject damaged and defective items.
  2. Provide attachment and connection devices and methods for securing work properly as it is installed; true to line and level, and within recognized industry tolerances if not otherwise indicated. Allow for expansions and building movements. Provide uniform joint widths in exposed work, organized for best possible visual effect. Refer questionable visual-effect choices to Architect for final decision.
  3. Recheck measurements and dimensions of the work, as an integral step of starting each installation.
  4. Install work during conditions of temperature, humidity, exposure, forecasted weather, and status of project completion which will ensure best possible results for each unit of work, in coordination with entire work. Isolate each unit of work from non-compatible work, as required to prevent deterioration.
  5. Coordinate enclosure (closing-in) of work with required inspections and tests, so as to avoid necessity of uncovering work for that purpose.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  - 2. Allow for building movement, including thermal expansion and contraction.
  - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

### 3.6 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 011000 "Summary of the Work."
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations. **Comply with Owner's requirements for obtaining hot work permit for work requiring torches or burning. Use of torches or burning is prohibited unless preapproved by review with Owner.****

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
  5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  6. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
  4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
  5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
  6. Patching in masonry construction to be toothed into existing wall to match coursing and spacing.
- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

### 3.7 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction personnel.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction personnel.
  - 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
  - 2. Preinstallation Conferences: Include Owner's construction personnel at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction personnel if portions of the Work depend on Owner's construction.

### 3.8 PROGRESS CLEANING

- A. General: During handling and installation of work at project site, clean and protect work in progress and adjoining work on a basis of perpetual maintenance. Apply suitable protective covering on existing or newly installed work where reasonably required to ensure freedom from damage or deterioration at time of **Substantial Completion**; otherwise, clean and perform maintenance on newly installed work as frequently as necessary through remainder of construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- B. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
  - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above **80 deg F (27 deg C)**.
  - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
    - a. Use containers intended for holding waste materials of type to be stored.
  - 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- C. Site: Maintain Project site free of waste materials and debris.
- D. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 1. Remove liquid spills promptly.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- E. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

- F. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- G. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- H. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 017419 "Construction Waste Management and Disposal."
- I. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- J. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- K. Limiting Exposures: To the extent possible through reasonable control and protection methods (including barricade provisions), supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Such exposures include (where applicable, but not by way of limitation) static loading, dynamic loading, internal pressures, external pressures, high or low temperature, thermal shock, high or low humidity, air contamination or pollution, water, ice, solvents, chemicals, light, radiation, puncture, abrasion, heavy traffic, soiling, bacteria, insect infestation, combustion, electrical current, high speed operation, improper lubrication, unusual wear, misuse, incompatible interface, destructive testing, misalignment, excessive weathering, unprotected storage, improper shipping/handling, theft and vandalism.

### 3.9 STARTING AND ADJUSTING

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect and Owner at least three days prior to start-up of each item.
- C. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- D. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- E. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- F. Verify that each piece of equipment or system has been checked for proper control sequence, and for conditions which may cause damage.
- G. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- H. Verify that wiring and support components for equipment are complete and tested.
- I. Execute start-up under supervision of applicable Contractor personnel in accordance with manufacturers' instructions.

- J. When specified in individual Sections, require manufacturer to provide authorized representation to be present at site to inspect, check, and approve equipment or system installation prior to start-up and to supervise placing equipment or system in operation.
- K. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

### 3.10 DEMONSTRATION AND INSTRUCTION

- A. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed time, at equipment location.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of Owner's personnel.
- D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

### 3.11 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of **Substantial Completion**.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300



## SECTION 017310 – CUTTING AND PATCHING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
  - 1. Division 2 Section "Selective Demolition" for demolition of selected portions of the building.
  - 2. Divisions 2 through 33 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

#### 1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

#### 1.4 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio. All cutting and patching of structural elements to be reviewed and approved by the Structural Engineer.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that result in increased maintenance or decreased operational life or safety. Operating elements include but are not limited to the following:
  - 1. Primary operational systems and equipment.
  - 2. Air or smoke barriers.
  - 3. Mechanical systems piping and ducts.
  - 4. Control systems.
  - 5. Communication systems.
  - 6. Conveying systems.
  - 7. Electrical wiring systems.
  - 8. Operating systems of special construction in Division 13 Sections.
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. Miscellaneous elements include but are not limited to the following:



1. Water, moisture, or vapor barriers.
2. Membranes and flashings.
3. Equipment supports.
4. Piping, ductwork, vessels, and equipment.
5. Noise- and vibration-control elements and systems.

D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

## 1.5 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
  2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

### 3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
  - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  - 4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
  - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  - 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
  - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
  - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
  - 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.

5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
  6. Patching in masonry construction to be toothed into existing wall to match coursing and spacing.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 017310

## SECTION 017400 - WARRANTIES

### PART 1 - GENERAL

1.1 Related Documents: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work specified in this section.

A. Contract Documents: Related requirements and conditions that are indicated on the Contract Documents include, but are not necessarily limited to, the following:

1. Existing conditions and restrictions.
2. Other work (furnishings and equipment) to be performed by Owner.

### 1.2 Summary

A. This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.

1. Refer to the General Conditions for terms of the Contractor's period for correction of Work.

1.3 Related Sections: The following Sections contain requirements that relate to this

A. Division 1 Section "Submittals" specifies procedures for submitting warranties.

B. Division 1 Section "Closeout Procedures" specifies contract closeout procedures.

C. Division 2 through Section 33 Sections for specific requirements for continuing services to the Owner are specified elsewhere in the Contract Documents.

D. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

### 1.4 Definitions

A. Standard product warranties are preprinted written warranties published by the individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

### 1.5 Warranty Requirements

A. Related damage and losses: When correcting failed or damaged warranted construction, remove and replace that has been damaged as a result of such failure, or must be removed and replaced to provide access for correction of warranted construction.

- B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or reworking, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement cost: Upon determination that Work covered by a warranty has failed, replace or rework the Work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or reworking defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.
- D. Owner's recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- E. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- F. Where the Contract Documents require a special warranty or similar commitment on the Work or part of the Work, the Owner reserves the right to refuse to accept the Work, until the contractor presents evidence that entities required to countersign such commitments are willing to do so.

1.6 Submittals:

- A. See Section 017700 "Closeout Procedures" for warranty submittal requirements.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 017400

## SECTION 017700 - CLOSEOUT PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Inspection procedures.
  - 2. Warranties.
  - 3. Final cleaning.
- B. The Contractor may commence closeout activities at any time during the performance of the Work. Performance of closeout procedures and completion of project closeout have the same schedule requirements as performance of other parts of the Work.
- C. Related Sections include the following:
  - 1. Divisions 2 through 28 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

#### 1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
  - 1. Prepare a detailed, comprehensive list of items of Work, areas of Work or other description of portion of Work not complete. Include the value of items on the list, and reasons why the Work is not complete. (Contractor's List of Incomplete Work)
  - 2. Prepare a detailed, comprehensive list of items to be corrected (punch list) including the value of items on the list. (Contractor's Punchlist)
  - 3. Advise Owner of pending insurance changeover requirements.
  - 4. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 5. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 6. Prepare and submit As-Built Drawings, Project Record Documents, operation and maintenance manuals, Final Completion construction photographs, damage or settlement surveys, property surveys, and similar final record information.
  - 7. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
  - 8. Coordinate final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
  - 9. Complete startup testing of systems.

10. Submit test/adjust/balance records.
11. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
12. Advise Owner of changeover in utilities.
13. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
14. Complete final cleaning requirements, including touchup painting.
15. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for Final Completion.

#### 1.4 INSPECTIONS

A. Architect and his design consultants will conduct a Pre-Final and Final Inspection prior to the Owner's final acceptance of the Work. A complete and thorough training shall be conducted by the contractors and subcontractors for the Owner's maintenance and operating personnel after the pre-final inspection. See Owner's training requirements elsewhere in the Documents.

1. The pre-final inspection shall be held after all systems are in place and in operation. All contractors shall demonstrate to the Architect that all systems in the building are properly installed, balanced, and performing as designed and specified. All Contractors and Subcontractors shall attend this inspection including water balance subcontractor.
2. The final inspection shall be held with the Owner, Architect, all Contractors and Subcontractors to demonstrate to the Owner that all systems in the building are operating as designed and to their satisfaction.

#### 1.5 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:

1. Submit a final Application for Payment.
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance. **Incomplete punchlist items will not be certified as complete by the Architect. The Owner may elect to accept incomplete or non-compliant work. The Owner shall submit a signed letter to the Architect listing each incomplete punchlist item or item of non-compliant work stating that those items are acceptable to the Owner without any further corrective work. The contractor shall assist the Owner in the coordination and the preparation of the letter by providing a comprehensive list of incomplete or non-compliant items with a written explanation as to why the corrective work is not being performed.**
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
5. Submit completed MBE Subcontractor/Supplier Data forms as attached herein.

- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
  - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

#### 1.6 CONTRACTOR'S LIST OF INCOMPLETE WORK

- A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
  - 1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
  - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems. Include an estimated cost value for each item.
  - 3. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Page number.

#### 1.7 CONTRACTOR'S PUNCH LIST

- A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
  - 1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
  - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems. Include an estimated cost value for each item.
  - 3. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Page number.

#### 1.8 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.



- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
  - 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
  - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

## 1.9 OPERATIONS AND MAINTENANCE MANUALS

- A. Maintenance Manuals: Organize maintenance-and-operating manual information into two (2) identical copies. Bind into individual binders, heavy-duty, vinyl covered 8 1/2" x 11" x 3" (maximum thickness), properly identified and indexed (thumb-tabbed). Include pocket folders for folded sheet information. Mark identification on both front and spine of each binder. Provide index at beginning of manual.
  - 1. Binder cover, spine and title page shall state "(name of project)", "Operation & Maintenance Manual for (name of equipment or system(s))", "PREPARED BY (name of Contractor), (date)". For the title page, include the names, addresses and phone numbers of the prime Contractor and major subcontractors or material suppliers.
  - 2. Table of contents shall be ordered alphabetically and may be combined with title page. If the quantity of material is such that it requires more than one binder the manual may be divided into volumes and the table of contents in each volume shall list the total contents for all volumes. Material in the volumes should be grouped by systems as reasonably as possible.
  - 3. Contents with index tabs:
    - a. Description of system contents, where located and how each part functions individually and concluded with a list of all equipment incorporated into the project with supplier's name, address, and phone number and service needed with reference to the data in the binder which describes proper service.
    - b. Approved shop drawings and product data including parts and maintenance information.
    - c. Manufacturer's operating instructions including how to start, stop and restart each piece of equipment, how to set temperature and humidity for normal operation, and caution notices.
    - d. O&M Manuals and cut sheets must clearly identify make, model number and serial number for each piece of equipment that is installed. Include belt size, filter size, motor HP and voltage.
- B. Include the following minimum information as applicable to the products or equipment.
  - 1. Emergency instructions including contact information for emergency repair services.
  - 2. Dealer locations and contact information for spare parts.
  - 3. Warranties
  - 4. Wiring and piping diagrams.
  - 5. Recommended "turn-around" or replacement or refurbishing cycles.
  - 6. Lubrication schedules and materials.
  - 7. Complete start-up, operation, and shutdown procedures for each system including sequence of events, locations of switches, emergency procedures and any other critical items.

8. Complete set of current shop drawings and equipment description showing all capacities and other operation conditions.
  9. Inspection procedures.
  10. Shop drawings, product data, and similar applicable information.
  11. Cleaning procedures including recommended cleaning agents, schedules and procedures.
- C. Include operations and maintenance data for all equipment, machines, parts, materials and systems whether specifically required or not for all items that require maintenance, cleaning, servicing, that are electrified or have moving parts or that have a warranty.

#### 1.10 AS-BUILT DRAWINGS

- A. Maintain a white-print set (blue-line or black-line) of contract drawings and shop drawings in clean, undamaged condition, with mark-up of actual installations which vary substantially from the work as originally shown. The Contractor shall record all changes from the contract drawings, including accurate dimensions where applicable including invert elevations for all below-grade outside utilities with reference to permanent above-grade objects.
1. Do not use the as-built set for any other construction related activities. Do not 'break up' the set into individual drawings or portions.
  2. Mark whichever drawing is most capable of showing "field" condition fully and accurately. Where shop drawings are used for mark-up, record a cross-reference at corresponding location on working drawings. Mark with permanent red ink and, where required for clarity, use other colors to distinguish between variations in separate categories of work. Give particular attention to concealed work, which would be difficult to measure and record at a later date.
  3. Organize as-built drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on cover of each set. Submit to Architect as "As Built Drawings" for Owner's records, so that Architect may prepare a set of reproducible record drawings for Owner's use.
  4. Record and submit any revised specifications resulting from substitutions or Contractor requested changes.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

### PART 3 - EXECUTION

#### 3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and anti-pollution regulations.
- B. Provide additional final cleaning to areas of Work that are affected by Contractor's activities after initial final cleaning. Provide additional final cleaning in specified areas as directed by Architect until final acceptance.

- C. **Cleaning:** Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
    - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
    - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - e. Remove snow and ice to provide safe access to building.
    - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    - h. Sweep concrete floors broom clean in unoccupied spaces.
    - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
    - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
    - k. Remove labels that are not permanent.
    - l. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
      - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
    - m. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
    - n. Replace parts subject to unusual operating conditions.
    - o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
    - p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
    - q. Clean ducts, blowers, and coils if units were operated without filters during construction.
    - r. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
    - s. Leave Project clean and ready for occupancy.
- D. **Pest Control:** Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests. Prepare a report.
- E. **Comply with safety standards for cleaning.** Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

- F. Removal of Protection: Except as otherwise indicated or requested by Architect, remove temporary protection devices and facilities which were installed during course of the work to protect previously completed work during remainder of construction period.

END OF SECTION 017700



## SECTION 024119 - SELECTIVE DEMOLITION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Demolition and removal of selected portions of building or structure.

- B. Related Requirements:

- 1. Section 011000 "Summary of the Work" for restrictions on the use of the premises, Owner-occupancy requirements, and phasing requirements.
  - 2. Section 017310 "Cutting and Patching" for cutting and patching procedures.

#### 1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and re install where indicated.
- D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

#### 1.4 PREINSTALLATION MEETINGS

- A. Pre-demolition Conference: Conduct conference at Project site.

- 1. Inspect and discuss condition of construction to be selectively demolished.
  - 2. Review structural load limitations of existing structure.
  - 3. Review and finalize selective demolition schedule and verify a availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
  - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
  - 5. Review areas where existing construction is to remain and requires protection.

#### 1.5 POST-INSTALLATION MEETINGS

- A. Post-demolition Conference: Conduct conference at Project site.
  - 1. Inspect and discuss condition of construction after selective demolish has been completed and prior to commencing framing and new construction.
  - 2. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
  - 3. Review existing conditions post-selective demolition.

#### 1.6 FIELD CONDITIONS

- A. Owner will occupy the building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Storage or sale of removed items or materials on-site is not permitted.
- D. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
  - 1. Maintain fire-protection facilities in service during selective demolition operations.

#### 1.7 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials and using approved contractors so as not to void existing warranties. Notify warrantor before proceeding.
- B. Notify warrantor on completion of selective demolition, and obtain documentation verifying that existing system has been inspected and warranty remains in effect. Submit documentation at Project closeout.

#### 1.8 COORDINATION

- A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Survey of Existing Conditions, pre-demolition: Record existing conditions by use of preconstruction photographs.
  - 1. Perform an inspection of all spaces to be renovated, traveled upon, or otherwise affected by the project prior to beginning work for purposes of documenting existing conditions. The scope of the inspection also includes the project site outside of the building, staging and storage areas, and any access paths or roads the Contractor will use. Inventory and record the condition of items to be removed and salvaged. Provide digital photographs or video recordings of existing conditions and of conditions that might be misconstrued as damage caused by salvage operations. Document any specific conditions established during the inspection for which the Contractor is not responsible for repairing under the base contract.
  - 2. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.
- F. Survey of Existing Conditions, post-demolition: Record existing conditions by use of post-demolition photographs.
  - 1. During the Post-demolition Conference, conduct a survey with the Architect and Owner to verify existing conditions.
  - 2. Document existing post-demolition conditions with photographs.

### 3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
  - 1. Comply with requirements for existing services/systems interruptions specified in Section 011000 "Summary."
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
  - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
  - 2. Arrange to shut off utilities with utility companies.
  - 3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
  - 4. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated on Drawings to be removed.



- a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
- b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
- c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
- d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
- e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
- f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
- g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material and leave in place.

### 3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
  - 1. Comply with requirements for access and protection specified in Section 015000 "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
  - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
  - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
  - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
  - 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
  - 5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 015000 "Temporary Facilities and Controls."
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
  - 1. Strengthen or add new supports when required during progress of selective demolition.

### 3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.

2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
  3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
  5. Maintain adequate ventilation when using cutting torches.
  6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
  7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
  8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
  9. Dispose of demolished items and materials promptly. Comply with requirements in Section 017419 "Construction Waste Management and Disposal."
- B. Reuse of Building Elements: Project has been designed to result in end-of-Project rates for reuse of building elements as follows. Do not demolish building elements beyond what is indicated on Drawings without Architect's approval.
- C. Removed and Salvaged Items:
1. Clean salvaged items.
  2. Store items in a secure area until delivery to Owner.
  3. Transport items to Owner's storage area designated by Owner.
  4. Protect items from damage during transport and storage.
- D. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse.
  2. Pack or crate items after cleaning and repairing. Identify contents of containers.
  3. Protect items from damage during transport and storage.
  4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

### 3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Concrete: Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least 3/4 inch (19 mm) at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated.
- B. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals using power-driven saw, then remove concrete between saw cuts.

- C. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, then remove masonry between saw cuts.
- D. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, and then break up and remove.
- E. Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI's "Recommended Work Practices for the Removal of Resilient Floor Coverings." Do not use methods requiring solvent-based adhesive strippers.

### 3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
  - 1. Do not allow demolished materials to accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
  - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
  - 4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

### 3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

## SECTION 042000 – UNIT MASONRY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. The extent of each type of unit masonry work is shown on drawings and schedules and specified herein. This section includes but is not necessarily limited to the following:
  - 1. Concrete masonry units.
  - 2. Mortar and grout.
  - 3. Masonry joint reinforcement.
  - 4. Ties and anchors.
  - 5. Miscellaneous masonry accessories.

#### 1.3 SUBMITTALS

- A. Product Data: For each different masonry unit, accessory, and other manufactured product specified.
- B. Material Test Reports: From a qualified testing agency indicating and interpreting test results of the following for compliance with requirements indicated:
  - 1. Each type of masonry unit required.
  - 2. Mortar complying with property requirements of ASTM C 270.
  - 3. Grout mixes complying with proportions mix design of ASTM C 476. Include description of type and volumetric proportions of grout ingredients.

#### 1.4 REFERENCES

- A. ASTM C33 - Specification for Concrete Aggregates.
- B. ASTM C150 - Specification for Portland Cement.
- C. ACI - Building Code Requirements for Structural Concrete, ACI-318 and ACI-530.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.
- B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- D. Deliver preblended, dry mortar mix in moisture-resistant containers designed for lifting and emptying into dispensing silo. Store preblended, dry mortar mix in delivery containers on elevated platforms, under cover, and in a dry location or in a metal dispensing silo with weatherproof cover.
- E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

## 1.6 PROJECT CONDITIONS

- A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
  - 1. Extend cover a minimum of 24 inches down both sides and hold cover securely in place.
  - 2. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of 24 inches down face next to unconstructed wythe and hold cover in place.
- B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least 3 days after building masonry walls or columns.
- C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
  - 1. Protect base of walls from rain-splashed mud and from mortar splatter by coverings spread on ground and over wall surface.
  - 2. Protect sills, ledges, and projections from mortar droppings.
  - 3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.

## PART 2 - PRODUCTS

### 2.1 UNIT MASONRY, GENERAL

- A. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated in the standard. Do not use units where such defects will be exposed in the completed Work.

### 2.2 CONCRETE MASONRY UNITS (CMUs)

- A. All concrete masonry units shall be kept free from coal cinder aggregate, waste products, organic impurities, and any other deleterious substance that will cause rusting, staining or pop outs.
- B. Concrete Masonry Units: ASTM C 90 and as follows:
  - 1. Weight Classification: Lightweight, unless otherwise indicated.
  - 2. Size (Width): Manufactured to actual dimensions 3/8 inch less than specified nominal dimensions.

### 2.3 MORTAR AND GROUT MATERIALS

- A. Portland Cement: ASTM C 150, Type I or II. Do not use calcium chloride in mortar or grout. Provide natural color or white cement as required to produce mortar color indicated.
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Portland Cement-Lime Mix: Packaged blend of portland cement complying with ASTM C 150, Type I or Type III, and hydrated lime complying with ASTM C 207.
- D. Aggregate for Mortar: ASTM C 144.
  - 1. For joints less than 1/4 inch (6 mm) thick, use aggregate graded with 100 percent passing the No. 16 (1.18-mm) sieve.
- E. Aggregate for Grout: ASTM C 404.
- F. Water: Potable.

## 2.4 MASONRY JOINT REINFORCEMENT

- A. General: ASTM A 951 and as follows:
  - 1. Hot-dip galvanized, carbon-steel wire for both interior and exterior walls.
  - 2. Wire Size for Side Rods: W1.7 or 0.148-inch diameter.
  - 3. Wire Size for Cross Rods: W1.7 or 0.148-inch diameter.
  - 4. Provide in lengths of not less than 10 feet, with prefabricated corner and tee units where indicated.
  - 5. Provide in width appropriate to type of masonry being installed. Side rods to be positioned not less than  $\frac{3}{4}$  inch nor more than  $1\frac{1}{4}$  inch from each face of masonry unit except within the center half at 4 inch thick masonry units.
- B. For single-wythe masonry, provide truss type with single pair of side rods and cross rods spaced not more than 16 inches o.c.

## 2.5 TIES AND ANCHORS, GENERAL

- A. General: Provide ties and anchors, specified in subsequent articles, made from materials that comply with this Article, unless otherwise indicated.
- B. Hot-Dip Galvanized Carbon-Steel Wire: ASTM A 82; with ASTM A 153, Class B-2 coating.
- C. Steel Sheet, Galvanized after Fabrication: ASTM A 366/A 366M cold-rolled, carbon-steel sheet hot-dip galvanized after fabrication to comply with ASTM A 153.
- D. Stainless-Steel Sheet: ASTM A 666, Type 304 or 316.

## 2.6 MISCELLANEOUS ANCHORS

- A. Postinstalled Anchors: Anchors as described below, with capability to sustain, without failure, load imposed within factors of safety indicated, as determined by testing per ASTM E 488, conducted by a qualified independent testing agency.
  - 1. Type: Chemical anchors.
  - 2. Type: Expansion anchors.
  - 3. Corrosion Protection: Stainless-steel components complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2 for bolts and nuts; ASTM A 666 or ASTM A 276, Type 304 or 316, for anchors.
  - 4. For Postinstalled Anchors: Capability to sustain, without failure, a load equal to six times the loads imposed.

## 2.7 MISCELLANEOUS MASONRY ACCESSORIES

- A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene or urethane.
- B. Preformed Control-Joint Gaskets: Material as indicated below, designed to fit standard sash block and to maintain lateral stability in masonry wall; size and configuration as indicated.
  - 1. Styrene-Butadiene-Rubber Compound: ASTM D 2000, Designation M2AA-805.

## 2.8 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated.
  - 1. Do not use calcium chloride in mortar or grout.
  - 2. Add cold-weather admixture (if used) at the same rate for all mortar, regardless of weather conditions, to ensure that mortar color is consistent.

- B. Grout for Unit Masonry: Comply with ASTM C 476 Proportions specification. DO NOT substitute mortar for Grout.
  - 1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with Table 5 of ACI 530.1/AS CE 6/TMS 602 for dimensions of grout spaces and pour height.
  - 2. Proportion grout in accordance with ASTM C 476, Table 1 or paragraph 4.2.2 for specified 28-day compressive strength indicated, but not less than 2000 psi (14 MPa).
  - 3. Provide grout with a slump of 8 to 11 inches as measured according to ASTM C 143.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.
  - 1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.
  - 2. Verify that foundations are within tolerances specified.
  - 3. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Before installation, examine rough-in and built-in construction to verify actual locations of piping connections.
- C. Examine and cull masonry units that are damaged or that when installed will result in non-uniformity of the finished wall surface. Non-uniformities include excessive variation of color, shape, dimension or surface texture. Architect will make final determination as to acceptability of masonry units.

### 3.2 INSTALLATION, GENERAL

- A. Thickness: Build cavity and composite walls and other masonry construction to the full thickness shown. Build single-wythe walls to the actual widths of masonry units, using units of widths indicated.
- B. Build chases and recesses to accommodate items specified in this Section and in other Sections of the Specifications.
- C. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match the construction immediately adjacent to the opening.
- D. Cut masonry units with motor-driven saws to provide clean, sharp, unchipped edges. Cut units as required to provide a continuous pattern and to fit adjoining construction. Where possible, use full-size units without cutting. Allow units cut with water-cooled saws to dry before placing, unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- E. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures.
  - 1. Mix units from several pallets or cubes as they are placed.
- F. Dispose of runoff from cleaning operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.
- G. Grout installation: Comply with Table 5, Table 7, Article 3.5C and Article 3.5D of ACI 530.1/AS CE 6/TMS 602. Do not exceed grout pour height of 5'.

### 3.3 CONSTRUCTION TOLERANCES

- A. Dimensions and Locations of Elements:

1. For location of elements in plan do not vary from that indicated by more than plus or minus 1/2 inch (12 mm).
  2. For location of elements in elevation do not vary from that indicated by more than plus or minus 1/4 inch (6 mm) in a story height or 1/2 inch (12 mm) total.
- B. Lines and Levels:
1. For bed joints and top surfaces of bearing walls do not vary from level by more than 1/4 inch in 10 feet (6 mm in 3 m), or 1/2 inch (12 mm) maximum.
  2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet (3 mm in 3 m), 1/4 inch in 20 feet (6 mm in 6 m), or 1/2 inch (12 mm) maximum.
  3. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet (3 mm in 3 m), 1/4 inch in 20 feet (6 mm in 6 m), or 1/2 inch (12 mm) maximum.
  4. For vertical alignment of exposed head joints, do not vary from plumb by more than 1/4 inch in 10 feet (6 mm in 3 m), or 1/2 inch (12 mm) maximum.
  5. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16 inch (1.5 mm) except due to warpage of masonry units within tolerances specified for warpage of units.
- C. Joints:
1. For exposed bed joints, do not vary from thickness indicated by more than plus or minus 1/16 inch (1.5 mm), with a maximum thickness limited to 7/16 inch (12 mm).
  2. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/16 inch (1.5 mm). Do not vary from adjacent bed-joint and head-joint thicknesses by more than 1/16 inch (1.5 mm).
  3. Work to masonry wall lengths dimensioned in Drawings. Alert Architect immediately of existing conditions that do not course with dimensions given in Drawings.

### 3.4 LAYING MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
1. Where exposed to view, masonry layout to follow an 8" horizontal module as dimensioned. Maintain module coursing throughout wall assemblies.
- B. Bond Pattern for Concrete Masonry Units: Lay exposed masonry in the following bond pattern; do not use units with less than nominal 4-inch horizontal face dimensions at corners or jambs.
1. Install in one-half running bond, unless noted otherwise in the Drawings.
- C. Lay concealed masonry with all units in a wythe in running bond or bonded by lapping not less than 2 inches. Bond and interlock each course of each wythe at corners. Do not use units with less than nominal 4-inch horizontal face dimensions at corners or jambs.
- D. Stopping and Resuming Work: In each course, rack back one-half-unit length for one-half running bond or one-third-unit length for one-third running bond; do not tooth. Clean exposed surfaces of set masonry, wet clay masonry units lightly if required, and remove loose masonry units and mortar before laying fresh masonry.
- E. Built-in Work: As construction progresses, build in items specified under this and other Sections of the Specifications. Fill in solidly with masonry around built-in items.
1. Fill space between hollow-metal frames and masonry solidly with grout after priming in accordance with Division 08 "Hollow Metal Steel Doors and Frames".



2. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath in the joint below and rod grout into core.
  3. Fill cores in hollow concrete masonry units with grout 24 inches under bearing plates, beams, lintels, posts, and similar items, unless otherwise indicated.
- F. Build non-load-bearing interior partitions full height of story to underside of solid floor or roof structure above, unless otherwise indicated.
1. Install compressible filler in joint between top of partition and underside of structure above.
  2. Install compressible filler in joint between masonry and obstructions such as structural members, piping, etc.

### 3.5 MORTAR BEDDING AND JOINTING

- A. Lay hollow masonry units as follows:
1. With face shells fully bedded in mortar and with head joints of depth equal to bed joints.
  2. With webs fully bedded in mortar in all courses of piers, columns, and pilasters.
  3. With webs fully bedded in mortar in grouted masonry, including starting course on footings.
  4. With entire units, including areas under cells, fully bedded in mortar at starting course on footings where cells are not grouted.
- B. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.
- C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than the joint thickness, unless otherwise indicated.
- D. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) and damproofing and air-barrier coating, unless otherwise indicated.

### 3.6 MASONRY JOINT REINFORCEMENT

- A. General: Provide continuous masonry joint reinforcement. Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.
1. Space reinforcement not more than 16 inches o.c.
  2. Space reinforcement not more than 8 inches o.c. vertically in foundation walls.
  3. Provide reinforcement not more than 8 inches above and below wall openings and extending 12 inches beyond openings.
    - a. Reinforcement above is in addition to continuous reinforcement.
- B. Cut or interrupt joint reinforcement at control and expansion joints, unless otherwise indicated.
- C. Provide continuity at corners and wall intersections by using prefabricated "L" and "T" sections. Cut and bend reinforcing units as directed by manufacturer for continuity at returns, offsets, column fireproofing, pipe enclosures, and other special conditions.

END OF SECTION 042000

## SECTION 061000 - ROUGH CARPENTRY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Wood blocking.

#### 1.3 DEFINITIONS

- A. Dimension Lumber: Lumber of 2 inches nominal (38 mm actual) or greater but less than 5 inches nominal (114 mm actual) in least dimension.
- B. Lumber grading agencies, and the abbreviations used to reference them, include the following:
  - 1. NeLMA: Northeastern Lumber Manufacturers' Association.
  - 2. SPIB: The Southern Pine Inspection Bureau.
  - 3. WCLIB: West Coast Lumber Inspection Bureau.
  - 4. WWPA: Western Wood Products Association.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
  - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
  - 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.
  - 3. For fire-retardant treatments, include physical properties of treated lumber both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D 5664.
  - 4. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
  - 5. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.

## 1.6 QUALITY ASSURANCE

- A. Testing Agency Qualifications: For testing a agency providing classification marking for fire-retardant treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

## PART 2 - PRODUCTS

### 2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
  - 1. Factory mark each piece of lumber with grade stamp of grading agency.
  - 2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
  - 3. Provide dressed lumber, S4S, unless otherwise indicated.
- B. Maximum Moisture Content of Lumber: 19 percent unless otherwise indicated.

### 2.2 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
  - 1. Blocking.
- B. For items of dimension lumber size, provide Construction or No. 2 grade lumber and any of the following species:
  - 1. Mixed southern pine; SPIB.
  - 2. Western woods; WCLIB or WWPA.
- C. For concealed boards, provide lumber with 19 percent maximum moisture content and any of the following species and grades:

1. Mixed southern pine; No. 2 grade; SPIB.
  2. Western woods; Construction or No. 2 Common grade; WCLIB or WWPA.
- D. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.
- E. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

## 2.3 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B 18.6.1.
- E. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.
- F. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry assemblies and equal to four times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
1. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2 (ASTM F 738M and ASTM F 836M, Grade A1 or A4)

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- B. Install sill sealer gasket to form continuous seal between sill plates and foundation walls.
- C. Do not splice structural members between supports unless otherwise indicated.
- D. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.
1. Provide metal clips for fastening gypsum board or lath at corners and intersections where framing or blocking does not provide a surface for fastening edges of panels. Space clips not more than 16 inches (406 mm) o.c.

- E. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- F. Comply with AWPAM4 for applying field treatment to cut surfaces of preservative-treated lumber.
  - 1. Use inorganic boron for items that are continuously protected from liquid water.
  - 2. Use copper naphthenate for items not continuously protected from liquid water.
- G. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
  - 1. NES NER-272 for power-driven fasteners.
  - 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
  - 3. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's International Residential Code for One- and Two-Family Dwellings.
- H. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

### 3.2 PROTECTION

- A. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061000

## SECTION 087100 - DOOR HARDWARE

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Commercial door hardware for the following:
    - a. Door closers.
    - b. Swing doors operators.
- B. Related Sections:
  - 1. **Division 01 Section "Alternates" for Preferred Brand Bid Alternates related to swing door operators.**

#### 1.3 SUBMITTALS

- A. Product Data: Include construction and installation details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Samples for Initial Selection: For each finish, color, and texture required for each type of door hardware indicated.
- C. Product Certificates: For electrified door hardware, signed by product manufacturer.
- D. Qualification Data: For firms and persons specified in "Quality Assurance" Article.
  - 1. Include lists of completed projects with project names and addresses of architects and owners, and other information specified.
- E. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for locks latches and closers.
- F. Warranty: Special warranty specified in this Section.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each type of door hardware to include in maintenance manuals. Include final hardware and keying schedules.

## 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by lock manufacturer.
  - 1. Installer's responsibilities include supplying and installing door hardware and providing a qualified Architectural Hardware Consultant available during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.
  - 2. Installer shall have warehousing facilities in Project's vicinity.
  - 3. Scheduling Responsibility: Preparation of door hardware and keying schedules.
- B. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Means of Egress Doors: Latches do not require more than 15 lbf (67 N) to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.
- D. Accessibility Requirements: For door hardware on doors in an accessible route, comply with the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.
  - 1. Adjust door closer sweep periods so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches (75 mm) from the latch, measured to the leading edge of the door.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for door hardware delivered to Project site.
- B. Tag each item or package separately with identification related to the final door hardware sets, and include basic installation instructions, templates, and necessary fasteners with each item or package.

## 1.7 COORDINATION

- A. Electrical System Roughing-in: Coordinate layout and installation of electrified door hardware with connections to power supplies, fire alarm system and detection devices, and access control system.

## 1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Structural failures including excessive deflection, cracking, or breakage.
    - b. Faulty operation of operators and door hardware.
    - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use.
    - d. Warranty Period: Three years from date of Final Acceptance.
    - e. Warranty Period for Manual Closers: 10 years from date of Final Acceptance.
    - f. Warranty Period for Exit Devices: Three (3) years from date of Final Acceptance.

## 1.9 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

## PART 2 - PRODUCTS

### 2.1 CLOSERS

- A. Accessibility Requirements: Where handles, pulls, latches, locks, and other operating devices are indicated to comply with accessibility requirements, comply with the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG)" and the North Carolina Accessibility Code.
  - 1. Door opening force:
    - a. The force for pushing or pulling open doors shall be 5 lbf (22.2 N) max. applied perpendicular to door.
  - 2. Closing speed:
    - a. From an open position of 90 degrees, the time required to move the door to an open position of 12 degrees shall be 5 seconds minimum.
- B. Door Closers for Means of Egress Doors: Comply with NFPA 101. Door closers shall not require more than 30 lbf (133 N) to set door in motion and not more than 15 lbf (67 N) to open door to minimum required width.
- C. Size of Units: Unless otherwise indicated, comply with manufacturer's written recommendations for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.
- D. Surface Closers: BHMA A156.4, Grade 1. Provide type of arm required for closer to be located on non-public side of door, unless otherwise indicated.

### 2.2 SWING DOOR OPERATORS

- A. Provide door operator as recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for long-term, maintenance-free operation under normal traffic load for type of occupancy indicated.
- B. Operators: Self-contained units powered by a minimum fractional horsepower, permanent-magnet, low voltage, DC motor.
  - 1. Electro-mechanical Operator: Transmit power from operator to door through reduction gear train, splined spindle, door arm, and linkage assembly. Drive train shall have positive constant engagement.
    - a. Operator shall be non-handed. One operator type shall be used for in-swing, out-swing, right hand or left hand. Handed operators shall not be acceptable.
    - b. Electro-Hydraulic operators, or operators requiring a manual door closer to pull the door closed following an automatic opening, shall not be acceptable.



- c. Operator shall employ a field adjustable mechanical stop to limit door travel for the fully open or closed door position.
  - 2. Operation: Power opening and spring closing.
  - 3. Mounting: Surface applied or overhead concealed
  - 4. Features:
    - a. Adjustable opening, and closing speeds.
    - b. Adjustable hold-open time between 0 and 30 seconds.
    - c. Stop door on obstruction.
    - d. Push and Go operation
    - e. Fire Alarm input
    - f. Door Sequencing input
    - g. Door Interlock input
    - h. LED Status indication for all inputs
- C. Closing Operation: The operator shall close the door by coiled spring energy employing the motor, as a dynamic brake to provide closing speed control. The closing spring shall be adjustable for positive closing action at a low material stress level for long spring life. Spring type shall be a clock style torsion spring. Linear type compressions springs shall not be acceptable.
- D. Manual Use: The operator shall function as a manual door closer in the direction of swing with or without electrical power. The operator shall deliver an even, consistent open force across the entire transition from door fully closed to door fully open.
- E. Electrical service to door operators shall be provided under Division 16 Electrical. Minimum service to be 120 VAC, 10 amps for doors with operators in pairs, 5 amps for single doors.
- F. Electrical Controls
- 1. Electrical Control System: Electrical control system shall include a micro-processed controller with quick connect plugs and removable terminal strips.
  - 2. Force Adjustment: Electrical Control System, during initial set-up, shall determine kinetic energy limitations based upon door weight. Manual force adjustments shall not be acceptable.
  - 3. Controller Protection: The controller shall incorporate the following features to ensure trouble free operation:
    - a. Fuse Protection
    - b. Electronic Surge Protection
    - c. Internal Power Supply Protection.

Program Dip Switches: The controller shall have program dip switches to allow selection or change for single or dual door operation, and activation options.

- G. Activation Devices
- 1. Initial activation shall be from a "Knowing Act".
  - 2. Push Plates: Face plates and mounting studs shall be stainless steel. Face plates shall be engraved with the international symbol for accessibility and "Push To Open".
    - a. Interior and exterior push plates shall be wall mounted in single or double gang electrical boxes and hardwired to door operator controls.
    - b. Push Plate will have Braille markings as per ADA signage requirements.

#### H. Aluminum Finish

1. Comply with NAAMM Metal Finishes Manual for Architectural and Metal Products for recommendations for applying and designing finishes. Finish designations prefixed by AA comply with system established by Aluminum Association for designing finishes.
2. Class II, Clear Anodic Finish: AA-M10C22A31 Mechanical Finish: as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.40 mils minimum complying with AAMA 611-98, and the following:
  - a. AAMA 607.1
  - b. Applicator must be fully compliant with all applicable environmental regulations and permits, including wastewater and heavy metal discharge.

### 2.3 FINISHES

- A. Standard: BHMA A156.18, as indicated in door hardware sets.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances, header support, and other conditions affecting performance of swinging automatic entrance doors. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Mounting: Install power door operators/headers level & plumb and true in alignment with established lines and grades. Anchor securely in place.
  1. Install surface-mounted hardware using concealed fasteners to greatest extent possible.
  2. Set headers, arms and linkages level and true to location with anchorage for permanent support.

- B. Door Operators: Connect door operators to electrical power distribution system as specified in Division 16 Sections.
- C. Sealants: Comply with requirements specified in Division 7 Section "Joint Sealants" to provide weather tight installation.
- A. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
  - 1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
  - 2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

### 3.3 ADJUSTING

- A. Occupancy Adjustment: Approximately six months after date of Final Acceptance, Installer's Architectural Hardware Consultant shall examine and readjust, including adjusting operating forces, each item of door hardware as necessary to ensure function of doors, door hardware, and electrified door hardware.

### 3.4 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure that door hardware is without damage or deterioration at time of Final Acceptance.

END OF SECTION 087100

## SECTION 092216 - NON-STRUCTURAL METAL FRAMING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Non-load-bearing steel framing systems for interior gypsum board assemblies.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Test-Response Characteristics: For fire-resistance-rated assemblies that incorporate non-load-bearing steel framing, provide materials and construction identical to those tested in assembly indicated, according to ASTM E 119 by an independent testing agency.

#### 2.2 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. Steel Framing and Furring:
    - a. Dietrich Industries, Inc.
    - b. MarinoWare; Division of Ware Ind.
    - c. National Gypsum Company.
    - d. Unimast, Inc.

#### 2.3 FRAMING SYSTEMS

- A. Framing Members, General: Comply with ASTM C 754 for partitions and ceilings.
  - 1. Steel Sheet Components: Comply with ASTM C 645 requirements for metal unless otherwise indicated.
  - 2. Protective Coating: ASTM A 653/A 653M, G40 (Z120) at interior (air conditioned) applications and ASTM A 653/A 653M, G60 (Z180) at exterior (non-air conditioned) applications, hot-dip galvanized unless otherwise indicated.
- B. Studs and Runners: ASTM C 645.

1. Steel Studs and Runners:
  - a. Minimum Base-Metal Thickness: 0.033 inch (0.84 mm).
  - b. Depth: As indicated on Drawings.

C. Deep-Leg Deflection Track: ASTM C 645 top runner with 2-inch-deep flanges.

D. Slip-Type Head Joints: Where indicated, provide the following:

1. Deflection Track: Steel sheet top runner manufactured to prevent cracking of finishes applied to interior partition framing resulting from deflection of structure above; in thickness not less than indicated for studs and in width to accommodate depth of studs.

E. Cold-Rolled Channel Bridging: Steel, 0.053-inch (1.34-mm) minimum base-metal thickness, with minimum 1/2-inch- (13-mm-) wide flanges.

1. Depth: 1-1/2 inches (38 mm).
2. Clip Angle: Not less than 1-1/2 by 1-1/2 inches (38 by 38 mm), 0.068-inch- (1.72-mm-) thick, galvanized steel.

F. Hat-Shaped, Rigid Furring Channels: ASTM C 645.

1. Minimum Base-Metal Thickness:
2. 0.033 inch (0.84 mm).
3. Depth: As indicated on Drawings.

G. Resilient Furring Channels: 1/2-inch- (13-mm-) deep, steel sheet members designed to reduce sound transmission.

1. Configuration: Asymmetrical, with face attached to single flange by a slotted leg (web).

## 2.4 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards.

1. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

A. Suspended Assemblies: Coordinate installation of suspension systems with installation of overhead structure to ensure that inserts and other provisions for anchorages to building structure have been installed to receive hangers at spacing required to support the Work and that hangers will develop their full strength.

1. Furnish concrete inserts and other devices indicated to other trades for installation in advance of time needed for coordination and construction.

B. Coordination with building components:

1. Review installation requirements including locations, heights and spacing for electrical, mechanical, plumbing, structural and other building components prior to installation of steel framing. Layout and install steel framing in locations to accommodate all required building components including required clearances.
2. Remove and reinstall steel framing components that interfere with required locations of other building components. Install framing to comply with other steel framing installation requirements including member sizes and spacing.

C. Coordination with Sprayed Fire-Resistive Materials:

1. Remove sprayed fire-resistive materials only to extent necessary for installation of non-load-bearing steel framing. Do not reduce thickness of fire-resistive materials below that required for fire-resistance ratings indicated. Protect adjacent fire-resistive materials from damage.

### 3.3 INSTALLATION, GENERAL

A. Installation Standard: ASTM C 754.

1. Gypsum Board Assemblies: Also comply with requirements in ASTM C 840 that apply to framing installation.

B. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.

C. Install bracing at terminations in assemblies.

D. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

E. Isolate steel framing from building structure at locations indicated to prevent transfer of loading imposed by structural movement.

1. Isolate ceiling assemblies where they abut or are penetrated by building structure.
2. Isolate partition framing and wall furring where it abuts structure, except at floor. Install slip-type joints at head of assemblies that avoid axial loading of assembly and laterally support assembly.
  - a. Use deep-leg deflection track where indicated.

### 3.4 INSTALLING FRAMED ASSEMBLIES

A. Install framing system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.

B. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.

C. Install studs so flanges within framing system point in same direction.

- D. Install tracks (runners) at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts penetrating partitions above ceiling.
1. Slip-Type Head Joints: Where framing extends to overhead structural supports, install to produce joints at tops of framing systems that prevent axial loading of finished assemblies.
  2. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install runner track section (for cripple studs) at head and secure to jamb studs.
    - a. Install two studs at each jamb unless otherwise indicated.
    - b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch (13-mm) clearance from jamb stud to allow for installation of control joint in finished assembly.
    - c. Extend jamb studs through suspended ceilings and attach to underside of overhead structure.
  3. Other Framed Openings: Frame openings other than door openings the same as required for door openings unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
  4. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance-rated assembly indicated and support closures and to make partitions continuous from floor to underside of solid structure.
  5. Sound-Rated Partitions: Install framing to comply with sound-rated assembly indicated.
- E. Direct Furring:
1. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches (610 mm) o.c.
- F. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch (3 mm) from the plane formed by faces of adjacent framing.

END OF SECTION 092216

## SECTION 092900 - GYPSUM BOARD

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

1. Interior gypsum board.
2. Gypsum board accessories.

- B. Related Requirements:

1. Section 099123 "Interior Painting" for primers applied to gypsum board surfaces.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

#### 1.4 QUALITY ASSURANCE

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

#### 1.6 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.
  1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.



## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.

### 2.2 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

### 2.3 INTERIOR GYPSUM BOARD

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. American Gypsum.
  - 2. Georgia-Pacific Gypsum LLC.
  - 3. Lafarge North America Inc.
  - 4. National Gypsum Company.
  - 5. Temple-Inland.
  - 6. USG Corporation.
- B. Abuse-Resistant Gypsum Board: ASTM C 1629/C 1629M, Level 1.
  - 1. Core: As indicated.
  - 2. Long Edges: Tapered.
  - 3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.
- C. Gypsum Wallboard: ASTM C 1396/C 1396M.
  - 1. Thickness: Match existing
  - 2. Long Edges: Tapered.
- D. Gypsum Ceiling Board: ASTM C 1396/C 1396M.
  - 1. Thickness: Match existing
  - 2. Long Edges: Tapered.

### 2.4 GYPSUM BOARD ACCESSORIES

- 1. Basis-of-Design Product: Fry Reglet DRMF,
- 2. Description: Trim reveal molding shall form a reveal where drywall terminates against other finish material.
- 3. Material: Extruded aluminum. Refer to drawings for finish.

### 2.5 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C 475/C 475M.

- B. Joint Tape:
  - 1. Interior Gypsum Board: Paper.
  - 2. Tile Backing Panels: As recommended by panel manufacturer.
  - 3. Glass-Mat Gypsum Board: 10-by-10 glass mesh.
  
- C. Joint Compound for Interior Gypsum Board: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
  - 1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
  - 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
    - a. Use setting-type compound for installing paper-faced metal trim accessories.
  - 3. Fill Coat: For second coat, use setting-type, sandable topping compound, or drying-type, all purpose compound.
  - 4. Finish Coat: For third coat, use setting-type, sandable topping compound, or drying-type, all-purpose compound.
  - 5. Skim Coat: For final coat of Level 5 finish, use setting-type, sandable topping compound, or drying-type, all-purpose compound.

## 2.6 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.
  
- B. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
  - 1. Use screws complying with ASTM C 954 for fastening panels to steel members from **0.033 to 0.112 inch (0.84 to 2.84 mm)** thick.
  - 2. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.
  
- C. Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
  - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Pecora Corporation; AC-20 FTR.
    - b. USG Corporation; SHEETROCK Acoustical Sealant.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and framing, with Installer present, for compliance with requirements and other conditions affecting performance.

- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than **1/16 inch (1.5 mm)** of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
  - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than **8 sq. ft. (0.7 sq. m)** in area.
  - 2. Fit gypsum panels around ducts, pipes, and conduits.
  - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow **1/4- to 3/8-inch- (6.4- to 9.5-mm-)** wide joints to install sealant.
- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide **1/4- to 1/2-inch- (6.4- to 12.7-mm-)** wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant; **except install fire sealant at rated assemblies.**
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- I. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and with manufacturer's written recommendations for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
- J. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.
- K. Space fasteners in gypsum panels according to referenced gypsum board application and finishing standard and manufacturer's written recommendations.
  - 1. Space screws a maximum of 12 inches o.c. for vertical applications.

### 3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
  - 1. Wallboard Type: As indicated on Drawings.
  - 2. Abuse-Resistant Type: As indicated on Drawings.
- B. Single-Layer Application:
  - 1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
  - 2. On partitions/walls, apply gypsum panels vertically (parallel to framing) or horizontally (perpendicular to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
    - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
    - b. At stairwells and other high walls, install panels horizontally unless otherwise indicated or required by fire-resistance-rated assembly.
  - 3. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

### 3.4 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
  - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
  - 2. Level 2: Panels that are substrate for tile and where indicated on Drawings.
  - 3. Level 4: At panel surfaces that will receive wallcoverings and at ceilings unless otherwise indicated.
    - a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."
  - 4. Level 5: At all exposed areas except areas noted to receive wall covering and at ceilings.
    - a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."

### 3.5 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.

- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
  - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

### 3.6 FIELD QUALITY CONTROL

END OF SECTION 092900

## SECTION 093000 - TILING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Division 01 "Sustainability Requirements" for low-emitting materials used within the Building Interior and construction waste.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Ceramic tile.

#### 1.3 DEFINITIONS

- A. General: Definitions in the ANSI A108 series of tile installation standards and in ANSI A137.1 apply to Work of this Section unless otherwise specified.
- B. ANSI A108 Series: ANSI A108.01, ANSI A108.02, ANSI A108.1A, ANSI A108.1B, ANSI A108.1C, ANSI A108.4, ANSI A108.5, ANSI A108.6, ANSI A108.8, ANSI A108.9, ANSI A108.10, ANSI A108.11, ANSI A108.12, ANSI A108.13, ANSI A108.14, ANSI A108.15, ANSI A108.16, and ANSI A108.17, which are contained in "American National Standard Specifications for Installation of Ceramic Tile."
- C. Module Size: Actual tile size plus joint width indicated.
- D. Face Size: Actual tile size, excluding spacer lugs.

#### 1.4 PERFORMANCE REQUIREMENTS

- A. Static Coefficient of Friction: For tile installed on walkway surfaces, provide products with the following values as determined by testing identical products per ASTM C 1028:
  - 1. Level Surfaces: Minimum 0.6.

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of tile and grout indicated. Include Samples of accessories involving color selection.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.

## 1.7 EXTRA MATERIALS

- A. Furnish extra materials that match and are from same production runs as products installed and that are packaged with protective covering for storage and identified with labels describing contents.

## 1.8 QUALITY ASSURANCE

- A. Source Limitations for Tile: Obtain tile and trim of each type and color or finish from one source or producer.
  - 1. Obtain tile and trim of each type and color or finish from same production run and of consistent quality in appearance and physical properties for each contiguous area.
- B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from one manufacturer and each aggregate from one source or producer.

## 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.
- B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination can be avoided.
- D. Store liquid materials in unopened containers and protected from freezing.
- E. Handle tile that has temporary protective coating on exposed surfaces to prevent coated surfaces from contacting backs or edges of other units. If coating does contact bonding surfaces of tile, remove coating from bonding surfaces before setting tile.

## 1.10 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. In other Part 2 articles, where titles below introduce lists, the following requirements apply for product selection:
  - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the products specified.

### 2.2 PRODUCTS, GENERAL

- A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.
  - 1. Provide tile complying with Standard grade requirements unless otherwise indicated.
- B. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI A108.02, ANSI standards referenced in other Part 2 articles, ANSI standards referenced by TCA installation methods specified in tile installation schedules, and other requirements specified.
- C. Factory Blending: For tile exhibiting color variations within ranges, blend tile in factory and package so tile units taken from one package show same range in colors as those taken from other packages and match approved Samples.
- D. Mounting: For factory-mounted tile, provide back- or edge-mounted tile assemblies as standard with manufacturer unless otherwise indicated.
  - 1. Where tile is indicated for installation in wet areas, do not use back- or edge-mounted tile assemblies unless tile manufacturer specifies in writing that this type of mounting is suitable for installation indicated and has a record of successful in-service performance.
- E. Factory-Applied Temporary Protective Coating: Where indicated under tile type, protect exposed surfaces of tile against adherence of mortar and grout by precoating with continuous film of petroleum paraffin wax, applied hot. Do not coat unexposed tile surfaces.

### 2.3 TILE PRODUCTS

- A. Basis-of-Design Product: Subject to compliance with requirements.
- B. Tile Type: Glazed wall tile (to match existing, site verify).
  - 1. Basis-of-Design Product: match existing
  - 2. Composition: Ceramic
  - 3. Module Size: match existing (4 by 4 inches, +/- site verify)
  - 4. Thickness: match existing
  - 5. Face: match existing
  - 6. Finish: match existing
  - 7. Tile Color and Pattern: match existing. If existing color is no longer available, Architect to select a new color from the manufacturer's full range.
  - 8. Grout Color: match existing
  - 9. Grout Line Width: match existing

### 2.4 SETTING MATERIALS

- A. Tile setting adhesives: VOC limit for each product:
  - 1. Mortar: 65 g/L or less.
  - 2. Adhesive: 65 g/L or less.
- B. Portland Cement Mortar Bed Underlayment:
  - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Mapei; Mapecem Premix.
    - b. Merkrete; Underlay C.
    - c. Proma; Pro Screed.



C. Latex-Portland Cement Mortar (Thin Set): ANSI A118.4.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Custom Building Products.
  - b. Laticrete International, Inc.
  - c. MAPEI Corporation.
2. Provide prepackaged, dry-mortar mix containing dry, redispersible, vinyl acetate or acrylic additive to which only water must be added at Project site.
3. For wall applications, provide mortar that complies with requirements for nonsagging mortar in addition to the other requirements in ANSI A118.4.
4. Provide white color at glass tile applications.

2.5 GROUT MATERIALS

A. Tile setting adhesives and grout: VOC limit for each product:

1. Grout: 65 g/L or less.
2. Adhesive: 65 g/L or less.

B. Water-Cleanable Epoxy Grout: ANSI A118.3.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Custom Building Products.
  - b. Laticrete International, Inc.
  - c. MAPEI Corporation.
2. Provide product capable of withstanding continuous and intermittent exposure to temperatures of up to 140 deg F (60 deg C) and 212 deg F (100 deg C), respectively, and certified by manufacturer for intended use.

2.6 MISCELLANEOUS MATERIALS

A. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.

B. Temporary Protective Coating: Either product indicated below that is formulated to protect exposed surfaces of tile against adherence of mortar and grout; compatible with tile, mortar, and grout products; and easily removable after grouting is completed without damaging grout or tile.

1. Petroleum paraffin wax, fully refined and odorless, containing at least 0.5 percent oil with a melting point of 120 to 140 deg F (49 to 60 deg C) per ASTM D 87.
2. Grout release in form of manufacturer's standard proprietary liquid coating that is specially formulated and recommended for use as temporary protective coating for tile.

C. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.

D. Moisture Mitigation Product: CMP Lock Down, Koster VAPI, or other product approved by tile manufacturer.

## 2.7 MIXING MORTARS AND GROUT

- A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.
- B. Add materials, water, and additives in accurate proportions.
- C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of installed tile.
  - 1. Verify that substrates for setting tile are firm, dry, clean, free of coatings that are incompatible with tile-setting materials including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.
  - 2. Verify that concrete substrates for tile floors installed with thin-set mortar comply with surface finish requirements in ANSI A108.01 for installations indicated.
    - a. Verify that surfaces that received a steel trowel finish have been mechanically scarified.
    - b. Verify that protrusions, bumps, and ridges have been removed by sanding or grinding.
  - 3. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.
  - 4. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with thin-set mortar with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.
- B. Moisture Testing: Perform tests recommended by tile flooring manufacturer, but not less stringent than the following:
  - 1. Perform anhydrous calcium chloride test according to ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of **3 lb of water/1000 sq. ft. (1.36 kg of water/92.9 sq. m)** in 24 hours.
    - a. Perform tests so that each test area does not exceed **200 sq. ft. (18.6 sq. m)**, and perform no fewer than two tests in each installation area and with test areas evenly spaced in installation areas.
  - 2. Perform relative humidity test using in situ probes according to ASTM F 2170. Proceed with installation only after substrates have maximum 75 percent relative humidity level.

- C. Existing moisture infiltration, evidenced by cracking and popping of floor tile, is present. Install tile manufacturer approved moisture mitigation product, as specified elsewhere in this Section.
- D. Where indicated, prepare substrates to receive waterproofing by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped **1/4 inch per foot (1:50)** toward drains.
- E. Blending: For tile exhibiting color variations, verify that tile has been factory blended and packaged so tile units taken from one package show same range of colors as those taken from other packages and match approved Samples. If not factory blended, either return to manufacturer or blend tiles at Project site before installing.
- F. Field-Applied Temporary Protective Coating: If indicated under tile type or needed to prevent grout from staining or adhering to exposed tile surfaces, precoat them with continuous film of temporary protective coating, taking care not to coat unexposed tile surfaces.

### 3.3 TILE INSTALLATION

- A. Install tile in layout and pattern as directed by Architect.
- B. **Unless more stringent, more specific or differing requirements are specified herein**, comply with TCA's "Handbook for Ceramic Tile Installation" for TCA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 Series "Specifications for Installation of Ceramic Tile" that are referenced in TCA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.
- C. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- D. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile. Seal **tile to outlets, fixtures, plates, collars, covers, etc.**
- E. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work **to align with existing tile joints** in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.
  - 1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.
  - 2. Where adjoining tiles on floor, base, walls, or trim are specified or indicated to be same size, align joints.
  - 3. Where tiles are specified or indicated to be whole integer multiples of adjoining tiles on floor, base, walls, or trim, align joints unless otherwise indicated.
- F. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:
  - 1. Factory-Mounted Unglazed Mosaic Tile: As shown in Tile Type Product Listing.
  - 2. Unglazed Floor Tile: As shown in Tile Type Product Listing.
  - 3. Glazed Wall Tile: As shown in Tile Type Product Listing.
  - 4. Interior corners: All interior corners of wall tile to be sealed without grout. Hold sealant joint width same as grout joints.
- G. Lay out tile wainscots to dimensions indicated or to next full tile beyond dimensions indicated.

- H. Expansion Joints: Provide expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated. Form joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.
  - 1. Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.
  - 2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

### 3.4 CLEANING AND PROTECTING

- A. Cleaning: On completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
  - 1. Remove latex-portland cement grout residue from tile as soon as possible.
  - 2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions but no sooner than 10 days after installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.
  - 3. Remove temporary protective coating by method recommended by coating manufacturer and that is acceptable to tile and grout manufacturer. Trap and remove coating to prevent drain clogging.
- B. Protect installed tile work until Project's Final Inspection with heavy Kraft paper or other heavy protective covering to prevent staining, damage, and wear. If recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile walls and floors.
- C. Before final inspection, remove protective coverings and rinse neutral protective cleaner from tile surfaces.

### 3.5 INTERIOR TILE INSTALLATION SCHEDULE

- A. Interior Wall Installations, Masonry or Concrete:
  - 1. Tile Installation W202: Thin-set mortar on fabric-reinforced, fluid-applied waterproofing membrane on masonry or concrete; TCA W202.
    - a. Thin-Set Mortar: Latex- portland cement mortar.
    - b. Grout: Water-cleanable epoxy grout.
- B. Interior Wall Installations, Metal Studs:
  - 1. Tile Installation W243: Thin-set mortar on fabric-reinforced, fluid-applied waterproofing membrane on cementitious tile backer board; TCA W243.
    - a. Thin-Set Mortar: Latex- portland cement mortar.
    - b. Grout: Water-cleanable epoxy grout.

END OF SECTION 093000



## SECTION 096513 - RESILIENT BASE AND ACCESSORIES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Resilient base.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples for Initial Selection: For each type of product indicated.

#### 1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Furnish not less than 10 linear feet (3 linear m) for every 500 linear feet (150 linear m) or fraction thereof, of each type, color, pattern, and size of resilient product installed.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F (10 deg C) or more than 90 deg F (32 deg C).

#### 1.6 FIELD CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F (21 deg C) or more than 95 deg F (35 deg C), in spaces to receive resilient products during the following time periods:
  - 1. 48 hours before installation.
  - 2. During installation.
  - 3. 48 hours after installation.
- B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).

- C. Install resilient products after other finishing operations, including painting, have been completed.

## 1.7 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Resilient Wall Base: Furnish not less than **10 linear feet (3 linear m)** for every **500 linear feet (150 linear m)** or fraction thereof, of each type, color, pattern, and size of resilient product installed.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Source Limitations: Obtain each type of resilient base from single source from single manufacturer.
- B. Source Limitations: Obtain each type of resilient molding accessories from single source from single manufacturer.

### 2.2 THERMOSET-RUBBER BASE

- A. Basis of Design Product: Subject to compliance with requirements, provide Roppe; Cove Base or a comparable product by one of the following:
  - 1. Burke Mercer Flooring Products, Division of Burke Industries Inc.
  - 2. Flexco.
  - 3. Johnsonite; A Tarkett Company.
- B. Product Standard: ASTM F 1861, Type TS (rubber, vulcanized thermoset), Group I (solid, homogeneous).
  - 1. Style: match existing
- C. Thickness: **0.125 inch (3.2 mm)**.
- D. Height: match existing (**4 inches, field verify**).
- E. Lengths: Coils in manufacturer's standard length.
- F. Outside Corners: Preformed.
- G. Inside Corners: Preformed.
- A. Colors: **match existing**

### 2.3 INSTALLATION MATERIALS

- A. Adhesives: Water-resistant type recommended by resilient-product manufacturer for resilient products and substrate conditions indicated.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
  - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
  - 1. Installation of resilient products indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- C. Do not install resilient products until they are the same temperature as the space where they are to be installed.
  - 1. At least 48 hours in advance of installation, move resilient products and installation materials into spaces where they will be installed.
- D. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient products.

### 3.3 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practical without gaps at seams and with tops of adjacent pieces aligned. In no event shall pieced runs be less than 2 feet in length.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.
- F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.
- G. Preformed Corners: Install preformed corners before installing straight pieces.



3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting resilient products.
- B. Perform the following operations immediately after completing resilient-product installation:
  - 1. Remove adhesive and other blemishes from exposed surfaces.
  - 2. Sweep and vacuum horizontal surfaces thoroughly.
  - 3. Damp-mop horizontal surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Cover resilient products subject to wear and foot traffic until Substantial Completion.

END OF SECTION 096513

## SECTION 099123 - INTERIOR PAINTING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following interior substrates:
  - 1. Gypsum board.

#### 1.3 DEFINITIONS

- A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- D. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- E. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- F. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- G. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Product List: For each product indicated, include the following:
  - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
  - 2. Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).
  - 1. Maintain containers in clean condition, free of foreign materials and residue.
  - 2. Remove rags and waste from storage areas daily.

## 1.6 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. Benjamin Moore & Co.
  - 2. Duron, Inc.
  - 3. ICI Paints.
  - 4. Sherwin-Williams Company (The).
  - 5. Glidden.
  - 6. Dayton Superior.

### 2.2 PAINT, GENERAL

- A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
- B. Material Compatibility:
  - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
  - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- C. Colors: match existing.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
  - 1. Gypsum Board: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- E. Proceed with coating application only after unsatisfactory conditions have been corrected.
  - 1. Application of coating indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" and "MPI Maintenance Repainting Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
  - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
  - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

### 3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
  - 1. Use applicators and techniques suited for paint and substrate indicated.
  - 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
  - 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
  - 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
  - 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

### 3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
  - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
  - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

### 3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### 3.6 INTERIOR PAINTING SCHEDULE

- A. Gypsum Board Substrates:
  - 1. Institutional Low-Odor/VOC Latex System:
    - a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.
      - 1) Primers: VOC not more than 100 g/L.
    - b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
      - 1) Flat and non-flat paints and coatings: VOC not more than 50 g/L.
  
    - a. Topcoat for typical walls: Latex, interior, institutional low odor/VOC, eggshell (Gloss Level 3), MPI #145 #52.
      - 1) Flat and non-flat paints and coatings: VOC not more than 50 g/L.
    - b. Topcoat for Ceilings: Latex, interior, institutional low odor/VOC, flat (Gloss Level 1), MPI #143.
      - 1) Flat and non-flat paints and coatings: VOC not more than 50 g/L.

END OF SECTION 099123

## SECTION 102650 - IMPACT-RESISTANT WALL PROTECTION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Corner guards.

#### 1.3 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, impact strength, fire-test-response characteristics, dimensions of individual components and profiles, and finishes for each impact-resistant wall protection unit.
- B. Shop Drawings: For each impact-resistant wall protection unit showing locations and extent. Include sections, details, and attachments to other work.
  - 1. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. Samples: For each type of impact-resistant wall protection unit indicated.
  - 1. Include similar Samples of accent strips and accessories involving color selection.
- D. Maintenance Data: For each impact-resistant wall protection unit to include in maintenance manuals.
  - 1. Include recommended methods and frequency of maintenance for maintaining optimum condition of plastic covers under anticipated traffic and use conditions. Include precautions against using cleaning materials and methods that may be detrimental to plastic finishes and performance.
- E. Warranty: Sample of special warranty.

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Source Limitations: Obtain impact-resistant wall protection units from single source from single manufacturer.
- C. Surface-Burning Characteristics: Provide impact-resistant, plastic wall protection units with surface-burning characteristics as determined by testing identical products per ASTM E 84, NFPA 255, or UL 723 by UL or another qualified testing agency.

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

## 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store impact-resistant wall protection units in original undamaged packages and containers inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.
  - 1. Maintain room temperature within storage area at not less than 70 deg F (21 deg C) during the period plastic materials are stored.
  - 2. Keep plastic sheet material out of direct sunlight.
  - 3. Store plastic wall protection components for a minimum of 72 hours, or until plastic material attains a minimum room temperature of 70 deg F (21 deg C).
    - a. Store corner-guard covers in a vertical position.

## 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install impact-resistant wall protection units until building is enclosed and weatherproof, wet work is complete and dry, and HVAC system is operating and maintaining temperature at 70 deg F (21 deg C) for not less than 72 hours before beginning installation and for the remainder of the construction period.

## 1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of impact-resistant wall protection units that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Structural failures.
    - b. Deterioration of plastic and other materials beyond normal use.
  - 2. Warranty Period: Five years from date of final acceptance.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Surface Burning Characteristics: Comply with ASTM E 84 or UL 723; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  - 1. Flame-Spread Index: (Class A) 25 or less.
  - 2. Smoke-Developed Index: 450 or less.

### 2.2 MATERIALS

- A. PVC-free Plastic: Class 1, textured, chemical- and stain-resistant, high-impact-resistant PVC-free acrylic-modified vinyl or bio-based polymer plastic with integral color throughout; extruded material, thickness as indicated.
  - 1. Impact Resistance: Complies with ASTM F476.
  - 2. Chemical and Stain Resistance: Tested according to ASTM D 1308.
  - 3. Self-extinguishing when tested according to ASTM D 635.
  - 4. Flame-Spread Index: 25 or less.
  - 5. Smoke-Developed Index: 450 or less.
- B. Aluminum Extrusions: Alloy and temper recommended by manufacturer for type of use and finish indicated, but with not less than strength and durability properties specified in ASTM B 221 (ASTM B 221M) for Alloy 6063-T5.
- C. Stainless-Steel Sheet: ASTM A 240/A 240M.
- D. Fasteners: Aluminum, nonmagnetic stainless-steel, or other noncorrosive metal screws, bolts, and other fasteners compatible with items being fastened. Use security-type fasteners where exposed to view.

### 2.3 CORNER GUARDS

- A. Surface-Mounted, 90 deg. corner guard.
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Construction Specialties, Inc. CO-8 or comparable product by a available manufacturer. Available manufacturers include, but are not limited to:
    - a. Alpar Architectural Products.
    - b. IPC Door and Wall Protection Systems; Division of InPro Corporation.
  - 2. 16 ga. stainless steel 304 alloy with #4 satin finish, min. strength and durability as specified in ASTM B221.
    - a. Profile: Nominal 1.5-inch long leg and 3/16-inch corner radius.
    - b. Height: As indicated on Drawings.

### 2.4 ADHESIVES

- A. Field-Applied Adhesives: Use adhesives that are acceptable to manufacturer.
  - 1. Special Purpose Contact Adhesive: 250 g/L maximum.

### 2.5 FABRICATION

- A. Fabricate impact-resistant wall protection units to comply with requirements indicated for design, dimensions, and member sizes, including thicknesses of components.
- B. Assemble components in factory to greatest extent possible to minimize field assembly. Disassemble only as necessary for shipping and handling.



- C. Fabricate components with tight seams and joints with exposed edges rolled. Provide surfaces free of wrinkles, chips, dents, uneven coloration, and other imperfections. Fabricate members and fittings to produce flush, smooth, and rigid hairline joints.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and wall areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Examine walls to which impact-resistant wall protection will be attached for blocking, grounds, and other solid backing that have been installed in the locations required for secure attachment of support fasteners.
  - 1. For impact-resistant wall protection units attached with adhesive or foam tape, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Complete finishing operations, including painting, before installing impact-resistant wall protection system components.
- B. Before installation, clean substrate to remove dust, debris, and loose particles.

### 3.3 INSTALLATION

- A. General: Install impact-resistant wall protection units level, plumb, and true to line without distortions. Do not use materials with chips, cracks, voids, stains, or other defects that might be visible in the finished Work.
  - 1. Install impact-resistant wall protection units in locations and at mounting heights indicated on Drawings.
  - 2. Provide splices, mounting hardware, anchors, and other accessories required for a complete installation.
    - a. Provide anchoring devices to withstand imposed loads.
    - b. Where splices occur in horizontal runs of more than 20 feet (6.1 m), splice aluminum retainers and plastic covers at different locations along the run, but no closer than 12 inches (305 mm).
    - c. Adjust end caps as required to ensure tight seams.

### 3.4 CLEANING

- A. Remove excess adhesive using methods and materials recommended in writing by manufacturer.

END OF SECTION 102650

## SECTION 102813 - TOILET ACCESSORIES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  1. Grab Bars.
  2. Thermally Insulated P-Trap Covers.
  3. Framed Mirrors.
  4. Combination Automated Paper Towel Dispenser/Waste Receptacle Units.
  5. Coat Hook.
  6. Automated Soap Dispenser.
  7. Automated Feminine Hygiene Dispenser.
- B. Related Sections:
  1. Division 06 Section "Rough Carpentry" for blocking.
  2. **Division 01 Section "Alternates" for Preferred Brand Bid Alternates.**

#### 1.3 DEFINITIONS

- A. FF&E Legend refers to the Furniture, Fixtures & Equipment Legend of the Drawings.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include the following:
  1. Construction details and dimensions.
  2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
  3. Material and finish descriptions.
  4. Features that will be included for Project.
- B. Toilet Accessory Schedule: For all accessory products. Use same designations indicated on Drawings.

#### 1.5 QUALITY ASSURANCE

- A. Source Limitations: For products listed together in the same Part 2 articles, obtain products from single source from single manufacturer.

#### 1.6 PERFORMANCE REQUIREMENTS

- A. Force required for user to operate dispensers must be less than 5 lbs.

- B. All accessories must comply with current North Carolina Building Code Accessibility requirements.

## 1.7 COORDINATION

- A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.
- B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Stainless Steel: ASTM A 666, Type 304, 0.031-inch (0.8-mm) minimum nominal thickness unless otherwise indicated.
- B. Steel Sheet: ASTM A 1008/A 1008M, Designation CS (cold rolled, commercial steel), 0.036-inch (0.9-mm) minimum nominal thickness.
- C. Galvanized-Steel Sheet: ASTM A 653/A 653M, with G60 (Z180) hot-dip zinc coating.
- D. Galvanized-Steel Mounting Devices: ASTM A 153/A 153M, hot-dip galvanized after fabrication.
- E. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.
- F. Chrome Plating: ASTM B 456, Service Condition Number SC 2 (moderate service).
- G. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.
- H. ABS Plastic: Acrylonitrile-butadiene-styrene resin formulation.

### 2.2 TOILET, BATH AND LAUNDRY ACCESSORIES

- A. General: Provide toilet accessories as shown on drawings and specified herein. Locate units as shown, or, if not shown, as directed by the Architect. Where locks are required, key all locks alike throughout project; furnish two keys for each lock.
- B. Materials: Provide units fabricated of materials and finishes as follows:
  1. Stainless Steel: AISI Type 302/304, with satin finish, .034" minimum, 22 ga., unless otherwise indicated.
  2. Galvanized Sheet Steel: ASTM A 653, G60
  3. Sheet Steel: Cold rolled, commercial quality ASTM A 1008, .040" minimum, unless otherwise indicated. Surface preparation and pretreatment as required for applied finish.
  4. Chromium Plating: Nickel, and chromium electro-deposited on metal, ASTM B 456, Type SC2.
  5. Galvanized Steel Mounting Devices: Hot-dip galvanized after fabrication, ASTM A 153.
  6. Mirror Glass: Nominal 6.0 mm thick, conforming to ASTM C 1036, Type I, Class 1, Quality q2, and with silvering, electro-plated copper coating, and protective organic coating.
  7. ABS Plastic: Acrylonitrile-butadiene-styrene resin formulation.

- C. Fasteners: Screws, bolts and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, or of galvanized steel where concealed.
- D. Manufacturers: Provide toilet accessories which fully meet specifications as manufactured by one of the
- E. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.
- F. Products: See Accessory Schedule at the end of this section for types of accessories required in the Work.
- G. Manufacturers: Subject to compliance with requirements, a available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 1. A&J Washroom Accessories.
  - 2. American Specialties, Inc. (ASI)
  - 3. Bobrick Washroom Equipment, Inc.
  - 4. Bradley Corporation.
  - 5. Georgia-Pacific.
  - 6. TrueBro / IPS Corporation.

### 2.3 TOILET, BATH AND LAUNDRY ACCESSORIES SCHEDULE

#### A. Grab Bar, 18-inch:

- 1. Basis-of-Design Product: ASI Series 3800, Type 01.
- 2. Configuration and Length: Straight configuration, 18" long.
- 3. Mounting: Flanges with concealed fasteners and cover plate.
  - a. Concealed 1/8" thick stainless steel mounting plate, fully blind welded to bar ends, with manufacturer's standard tamper-proof screws, three per flange. Use only non-removable screws for mounting.
- 4. Materials:
  - a. 1-1/2 inches o.d. stainless steel pipe, with 0.048 inch minimum wall thickness.
  - b. Fixed or snap-type stainless steel cover plate, with 0.030 inch minimum wall thickness.
  - c. Finish: No. 4 (satin)
  - d. Non-Slip Gripping Surfaces: Peened, knurled or striated, manufacturer's standard in grip area.

#### B. Grab Bar, 42-inch:

- 1. Basis-of-Design Product: ASI Series 3800, Type 01.
- 2. Configuration and Length: Straight configuration, 42" long.
- 3. Mounting: Flanges with concealed fasteners and cover plate.
  - a. Concealed 1/8" thick stainless steel mounting plate, fully blind welded to bar ends, with manufacturer's standard tamper-proof screws, three per flange. Use only non-removable screws for mounting.
- 4. Materials:
  - a. 1-1/2 inches o.d. stainless steel pipe, with 0.048 inch minimum wall thickness.
  - b. Fixed or snap-type stainless steel cover plate, with 0.030 inch minimum wall thickness.
  - c. Finish: No. 4 (satin)
  - d. Non-Slip Gripping Surfaces: Peened, knurled or striated, manufacturer's standard in grip area.

#### C. Thermally Insulated P-Trap Cover:

1. Basis-of-Design Product: Truebro/IPS Corporation Lav Guard 2 Item #102E-Z.
  2. Description: Insulating and vented under-sink piping cover which prevents direct contact with and burns from 'P' trap, waste line, water service lines and valves.
  3. Material: Antimicrobial, molded vinyl.
    - a. Bacterial and fungus resistance: 0 growth, in accordance with ASTM G21 and G22.
    - b. Burning characteristics: Self-extinguished, in accordance with ASTM D-635.
  4. Color, Finish: Bright white, smooth.
  5. Fasteners: Reusable, built-in, concealed fasteners.
- D. Framed Mirror:
1. Basis-of-Design Product: ASI 0600.
  2. Description: Angle frame mirror.
    - a. Frame Description: One piece, roll-formed, 0.048" minimum thick, stainless steel angle frame with welded corners and satin finish.
    - b. Mirror Description: No.1 quality, 1/4" (6-mm) plate glass, silver coated and hermetically sealed with uniform coating of electrolyte copper plating. Corners shall be protected by friction-absorbing filler strips and the back shall be protected by polyethylene padding.
  3. Size: 24 inches wide by 36 inches high.
  4. Mounting: Vertically oriented, surface mounted. Galvanized steel back shall have integral hanging brackets for mounting on concealed one-piece rectangular wall hangers. Mirror shall be secured to hanger with concealed, tamper proof setscrews in top and bottom of frame.
  5. Mirror Silver Warranty: 15 years against silver spoilage.
- E. Combination Automated Paper Towel Dispenser/Waste Receptacle Unit:
1. Mounting: Recessed mounted on wall or partition using No. 10 self tapping screws.
  2. Cabinet, frame, waste container: fabricated of 22 gauge type 304 stainless steel alloy.
- F. Coat Hook:
1. Basis-of-Design Product: ASI 0751.
  2. Description: Heavy Duty Coat Hook.
  3. Material and Finish: Fabricated of brass with a chrome finish.
  4. Mounting: Surface mounted using No. 10 pan head self-tapping screws in a manner capable of supporting 300 lbs of downward force. Secure hook to bracket by tightening three (3) hex socket set screws on perimeter of flange with a 1/8" hex wrench.
- G. Automated Soap Dispenser:
1. Description: Automated dispenser with infrared sensor to detect presence of hands; designed for dispensing soap in liquid form.
  2. Mounting: Surface mounted.
  3. Materials: Stainless steel.
  4. Refill Indicator: LED indicator.
  5. Low Battery Indicator: LED indicator.
- H. Automated Feminine Hygiene Dispenser:
1. Type: Menstrual care dual vendor.
  2. Mounting: Surface mounted.
  3. Operation: Automated.
  4. Exposed Material and Finish: Stainless steel.

## 2.4 FABRICATION

- A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.
- B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.
- B. Grab Bars: Provide continuous, concealed blocking. Install to withstand a downward load of at least 250 lbf (1112 N), when tested according to ASTM F446.

### 3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
- B. Remove temporary labels and protective coatings.
- C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

END OF SECTION 102800



## SECTION 123661 – SOLID SURFACE COUNTERTOPS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Solid surface material countertops.
- B. Related Requirements:
  - 1. Division 22 Sections for plumbing fixtures installed in solid surface countertops.

#### 1.3 ACTION SUBMITTALS

- A. Product Data.
- B. Shop Drawings: Show materials, finishes, edge and backsplash profiles, methods of joining, and cutouts for plumbing fixtures, toilet accessories and other items installed in countertops.
- C. Samples for Initial Selection: For each type of material exposed to view.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data for Fabricator: Provide AWI Quality Certification Program certificate for fabricator.
- B. Qualification Data for Installer: Provide AWI Quality Certification Program certificate for installer.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For solid surface material countertops to include in maintenance manuals. Include Product Data for care products used or recommended by Installer and names, addresses, and telephone numbers of local sources for products.

#### 1.6 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate countertops similar to that required for this Project, and whose products have a record of successful in-service performance

#### 1.7 FIELD CONDITIONS

- A. Field Measurements:
  - 1. Verify size and shape of countertop by field measurements prior to fabrication.



- B. Condition solid surface material to average prevailing humidity conditions in installation areas and examine and complete work as required, including removal of packing before installation.

## 1.8 COORDINATION

- A. Coordinate locations of utilities and accessories that will penetrate countertops.

## PART 2 - PRODUCTS

### 2.1 SOLID-SURFACE-MATERIAL COUNTERTOPS

- A. Countertop: **1/2-inch-(12.7-mm-)** thick, solid surface material with eased edge.
- B. Fabrication: Fabricate tops in one piece, with shop-applied edges, unless otherwise indicated. Comply with solid-surface-material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.

### 2.2 COUNTERTOP MATERIALS

- A. Solid Surface Material: Homogeneous-filled plastic resin complying with ICPA SS-1.
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Avonite Surfaces.
    - b. DuPont; Corian.
    - c. Formica Corporation.
    - d. LG Hausys America; Hi-Macs.
    - e. Wilsonart International.
  - 2. Type: Provide Standard Type unless Special Purpose Type is indicated.
  - 3. Colors and Patterns: Refer to Drawings.

### 2.3 COUNTERTOP FABRICATION

- A. Fabricate countertops according to solid surface material manufacturer's written instructions and to the AWI/AWMAC/WI's "Architectural Woodwork Standards."
  - 1. Grade: custom
- B. Configuration:
  - 1. Front: Straight, slightly eased at top with separate apron, **where indicated**, recessed behind front edge.
  - 2. Backsplash: Straight, slightly eased at corner.
  - 3. End Splash: Matching backsplash.
- C. Countertops: **1/2-inch-(12.7-mm-)** thick, solid surface material with front edge built up with same material.
- D. Backsplashes: **3/4-inch-(19-mm-)** thick, solid surface material.

- E. Fabricate tops with shop-applied edges and backsplashes unless otherwise indicated. Comply with solid surface material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.
  - 1. Fabricate with loose backsplashes for field assembly.
  - 2. Install integral sink bowls in countertops in the shop.
- F. Joints: Fabricate countertops in largest practical sections for joining in field.
  - 1. Joint Locations: Not within **18 inches (450 mm)** of a sink or cooktop and not where a countertop section less than **36 inches (900 mm)** long would result, unless unavoidable.
- G. Cutouts and Holes:
  - 1. Undercounter Plumbing Fixtures: Make cutouts for fixtures in shop using template or pattern furnished by fixture manufacturer. Form cutouts to smooth, even curves.
    - a. Provide vertical edges, slightly eased at juncture of cutout edges with top and bottom surfaces of countertop and projecting **3/16 inch (5 mm)** into fixture opening.
    - b. Provide vertical edges, rounded to **3/8-inch (10-mm)** radius at juncture of cutout edges with top surface of countertop, slightly eased at bottom, and projecting **3/16 inch (5 mm)** into fixture opening.
    - c. Provide **3/4-inch (20-mm)** full bullnose edges projecting **3/8 inch (10 mm)** into fixture opening.
  - 2. Counter-Mounted Plumbing Fixtures: Prepare countertops in shop for field cutting openings for counter-mounted fixtures. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.
  - 3. Fittings: Drill countertops in shop for plumbing fittings, undercounter soap dispensers, and similar items.

## 2.4 INSTALLATION MATERIALS

- A. Adhesive: Product recommended by solid surface material manufacturer.
  - 1. Adhesives, Aerosol Adhesives, Sealants and Sealant Primers: VOC limit for each adhesive, sealant and sealant primer product shall comply with requirements as listed in Division 01 "Sustainability Requirements".
- B. Sealant for Countertops: Comply with applicable requirements in Division 07 Section "Joint Sealants."
- C. Countertop Support Bracket: Load capacity 450 lbs. per pair, clear anodized aluminum; provide Rakks EH-Inside Wall Mount with face plate or approved equal.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates to receive solid surface material countertops and sills, and conditions under which countertops and sills will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of countertops.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 COUNTERTOP INSTALLATION

- A. Install countertops level to a tolerance of **1/8 inch in 8 feet (3 mm in 2.4 m)**, **1/4 inch (6 mm)** maximum. Do not exceed **1/64-inch (0.4-mm)** difference between planes of adjacent units.
- B. Secure countertops to subtops with adhesive according to solid surface material manufacturer's written instructions. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.
- C. Bond joints with adhesive and draw tight as countertops are set. Mask areas of countertops adjacent to joints to prevent adhesive smears.
  - 1. Clamp units to temporary bracing, supports, or each other to ensure that countertops are properly aligned and joints are of specified width.
- D. Install backsplashes and end splashes by adhering to wall and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears.
- E. Install aprons to backing and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears. Fasten by screwing through backing. Pre-drill holes for screws as recommended by manufacturer.
- F. Complete cutouts not finished in shop. Mask areas of countertops adjacent to cutouts to prevent damage while cutting. Make cutouts to accurately fit items to be installed, and at right angles to finished surfaces unless beveling is required for clearance. Ease edges slightly to prevent snipping.
  - 1. Seal edges of cutouts in particleboard subtops by saturating with varnish.
- G. Apply sealant to gaps at walls.

END OF SECTION 123661