

Request for Proposal UK-2617.0-2-24 Proposal Due Date – 04/09/2024

UK Agriculture Research Facility 1 TC-001 Early Subcontractor Involvement Greenhouses UK Project #2617.0



REQUEST FOR PROPOSAL (RFP)

ATTENTION: This is not an order. Read all instructions, terms and conditions carefully.

PROPOSAL NO.: UK-2617.0-2-24 RETURN ORIGINAL NO.: 03/20/2024 UNIVE

Title: Agriculture Research Facility Greenhouse

Purchasing Officer: Corey W. Leslie

Contact:

cckbidguestions@uky.edu

RETURN ORIGINAL COPY OF PROPOSAL TO: UNIVERSITY OF KENTUCKY

PROCUREMENT SERVICES
411 S LIMESTONE

ROOM 322 PETERSON SERVICE BLDG. LEXINGTON, KY 40506-0005

IMPORTANT: PROPOSALS MUST BE RECEIVED BY: 04/09/2024 3 P.M. LEXINGTON, KY TIME

NOTICE OF REQUIREMENTS

- 1. The University's General Terms and Conditions and Instructions to Bidders, viewable at https://purchasing.uky.edu/bid-and-proposal-opportunities, apply to this RFP. When the RFP includes construction services, the University's General Conditions and Special Conditions for Construction and Instructions to Bidders, viewable at https://purchasing.uky.edu/bid-and-proposal-opportunities, apply to the RFP.
- 2. Contracts resulting from this RFP must be governed by and in accordance with the laws of the Commonwealth of Kentucky.
- 3. Any agreement or collusion among offerors or prospective offerors, which restrains, tends to restrain, or is reasonably calculated to restrain competition by agreement to bid at a fixed price or to refrain from offering, or otherwise, is prohibited.
- 4. Any person who violates any provisions of KRS 45A.325 shall be guilty of a felony and shall be punished by a fine of not less than five thousand dollars nor more than ten thousand dollars, or be imprisoned not less than one year nor more than five years, or both such fine and imprisonment. Any firm, corporation, or association who violates any of the provisions of KRS 45A.325 shall, upon conviction, be fined not less than ten thousand dollars or more than twenty thousand dollars.

AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION AND NON-CONFLICT OF INTEREST

I hereby swear (or affirm) under the penalty for false swearing as provided by KRS 523.040:

- 1. That I am the offeror (if the offeror is an individual), a partner, (if the offeror is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the offeror is a corporation);
- 2. That the attached proposal has been arrived at by the offeror independently and has been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other Contractor of materials, supplies, equipment or services described in the RFP, designed to limit independent bidding or competition;
- 3. That the contents of the proposal have not been communicated by the offeror or its employees or agents to any person not an employee or agent of the offeror or its surety on any bond furnished with the proposal and will not be communicated to any such person prior to the official closing of the RFP:
- 4. That the offeror is legally entitled to enter into contracts with the University of Kentucky and is not in violation of any prohibited conflict of interest, including, but not limited to, those prohibited by the provisions of KRS 45A.330 to .340, and164.390;
- 5. That the offeror, and its affiliates, are duly registered with the Kentucky Department of Revenue to collect and remit the sale and use tax imposed by Chapter 139 to the extent required by Kentucky law and will remain registered for the duration of any contract award;
- 6. That I have fully informed myself regarding the accuracy of the statement made above.

SWORN STATEMENT OF COMPLIANCE WITH CAMPAIGN FINANCE LAWS

In accordance with KRS45A.110 (2), the undersigned hereby swears under penalty of perjury that he/she has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky and that the award of a contract to a bidder will not violate any provision of the campaign finance laws of the Commonwealth of Kentucky.

CONTRACTOR REPORT OF PRIOR VIOLATIONS OF KRS CHAPTERS 136, 139, 141, 337, 338, 341 & 342

The contractor by signing and submitting a proposal agrees as required by 45A.485 to submit final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341 and 342 that have occurred in the previous five (5) years prior to the award of a contract and agrees to remain in continuous compliance with the provisions of the statutes during the duration of any contract that may be established. Final determinations of violations of these statutes must be provided to the University by the successful contractor prior to the award of a contract.

CERTIFICATION OF NON-SEGREGATED FACILITIES

The contractor, by submitting a proposal, certifies that he/she is in compliance with the Code of Federal Regulations, No. 41 CFR 60-1.8(b) that prohibits the maintaining of segregated facilities.

SIGNATURE REQUIRED: This proposal cannot be considered valid unless signed and dated by an authorized agent of the offeror. Type or print the signatory's name, title, address, phone number and fax number in the spaces provided. Offers signed by an agent are to be accompanied by evidence of his/her authority unless such evidence has been previously furnished to the issuing office.

DELIVERY TIME:	NAME OF COMPANY:	DUNS#
PROPOSAL FIRM THROUGH:	ADDRESS:	Phone/Fax:
PAYMENT TERMS:	CITY, STATE & ZIP CODE:	E-MAIL:
SHIPPING TERMS: F. O. B. DESTINATION PREPAID AND ALLOWED	TYPED OR PRINTED NAME:	WEB ADDRESS:
FEDERAL EMPLOYER ID NO.:	SIGNATURE:	DATE:

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- **■** General Requirements
- General Conditions
- Special Conditions
- **■** Sample Turner Subcontract Form 36
- **Form 36 Early Subcontractor Involvement Rider**
- Attachment "C" Project Safety Program
- Attachment "D" E&O Insurance Provisions
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- Attachment "F" Percentage Markup
- Attachment "G" Project Schedule
- Attachment "I" Lean Subcontract Exhibit
- Attachment "J" Electronic Agreement
- Attachment "K" CCIP Manual
- Attachment "L" Tree Protection Standards
- Attachment "M" Site Logistics
- Attachment "N" Subcontractor Onboarding
- Attachment "O" Greenhouse Narrative

1.0 DEFINITIONS

The term "addenda" means written or graphic instructions issued by the University of Kentucky prior to the receipt of proposals that modify or interpret the RFP documents by additions, deletions, clarifications and/or corrections.

The term "competitive negotiations" means the method authorized in the Kentucky Revised Statutes, Chapter 45A.085.

The terms "offer" or "proposal" mean the offeror's/offerors' response to this RFP.

The term "offeror" means the entity or contractor group submitting the proposal.

The term "contractor" means the entity receiving a contract award.

The term "purchasing agency" means the University of Kentucky, Purchasing Division, Room 322 Peterson Service Building, Lexington, KY 40506-0005.

The term "purchasing official" means the University of Kentucky's appointed contracting representative.

The term "responsible offeror" means a person, company or corporation that has the capability in all respects to perform fully the contract requirements and the integrity and reliability that will assure good faith performance. In determining whether an offeror is responsible, the University may evaluate various factors including (but not limited to): financial resources; experience; organization; technical qualifications; available resources; record of performance; integrity; judgment; ability to perform successfully under the terms and conditions of the contract; adversarial relationship between the offeror and the University that is so serious and compelling that it may negatively impact the work performed under this RFP; or any other cause determined to be so serious and compelling as to affect the responsibility of the offeror.

The term "solicitation" means RFP.

The term "University" means University of Kentucky.

2.0 GENERAL OVERVIEW

2.1 Intent and Scope

This Requests for Proposals (RFP) is issued to solicit proposals from qualified, experienced, financially sound, and responsible firms to provide labor, equipment and materials for complete Preconstruction Assistance and Construction phase scope of services for Greenhouses for the University of Kentucky.

- This request for proposal includes the new rooftop greenhouse & circulation spaces for the new Agriculture Research Building 1.
- This request for proposal includes Preconstruction Assistance to Architect.
- The Contractor who is chosen to provide the system must provide a turn-key installation with full functionality.
- The Contractor who is chosen to implement the system must provide a single point of contact during the project period. This single point of contact will have full responsibility for ensuring the project requirements are completed.
- Testing and Certification.

To be considered a responsible bidder, the contractor must have successfully completed previous Greenhouse projects with similar size, scope of work, and quality requirements as the project being quoted. The University and Construction Manager reserve the right to contact any person materially involved with the referenced projects.

The scope of services for this contract are further detailed in section **7.0 Scope of Services**.

Proposals for the following work will be received by University of Kentucky Procurement Services in Room #322 Peterson Service Building, Lexington, Kentucky 40506-0005, in the manner and on the date hereinafter specified for the furnishing of all labor, materials, supplies, tools, appliances, equipment, services, etc., necessary for the construction of Trade Contract 001 - Early Subcontractor Involvement and Construction Phase Services for Greenhouses for Project #2617.0, as set forth in the specifications and as shown on the sketch as prepared by JRA Architects and the Scope of Services prepared by Turner Construction Company and approved by the Capital Project Management Division and the under the terms and conditions of this RFP.

Attachment J is an electronic agreement to be signed for viewing rights to a copy of the design model of the façade to understand project details and assist contractor to complete this RFP.

2.2 Background Information

This package involves the Preconstruction Assistance services and Construction Phase services for Greenhouses for the Agriculture Research Facility. The work will be performed under contract with the Construction Manager, Turner Construction Company.

IMPORTANT NOTE: THE SUCCESSFUL OFFEROR WILL ENTER INTO A SUBCONTRACT WITH TURNER CONSTRUCTION COMPANY. THE FORM OF CONTRACT IS INCLUDED WITH THE SOLICITATION DOCUMENTS. THERE WILL BE NO DIRECT CONTRACTUAL RELATIONSHIP BETWEEN THE SUCCESSFUL OFFEROR AND THE UNIVERSITY OF KENTUCKY.

2.3 <u>University Information</u>

Upon his arrival in 2011, President Eli Capilouto set an ambitious agenda to extend and enhance our role as Kentucky's land-grant and flagship research university. By focusing on infrastructure growth and improvement; creating opportunities for innovative teaching, learning and academic excellence; fostering a robust research enterprise; providing life-saving subspecialty care; empowering communities through service and outreach; and encouraging a transparent and shared dialogue about institutional priorities; the University of Kentucky will help ensure a Kentucky tomorrow that is healthier, wealthier, and wiser than it is today.

Our mission is to advance Kentucky.

Founded in 1865 as a land-grant institution adjacent to downtown Lexington, UK is nestled in the scenic heart of the beautiful Bluegrass region of Kentucky. From its early beginnings, with only 190 students and 10 professors, UK's campus now covers more than 900 acres. The university enrolled more than 32,000 students in Fall 2022 and has approximately 25,000 employees, including nearly 3,000 full-time faculty.

UK is one of a small number of universities in the United States that has programs in agriculture, engineering, law, fine arts and a full complement of health colleges including medicine and pharmacy, on a single campus alongside an academic health system, leading to groundbreaking discoveries and unique interdisciplinary collaboration.

The state's flagship university consists of 18 academic and professional colleges where students can choose from more than 200 majors and degree programs at the undergraduate and graduate levels. The colleges are Agriculture, Food and Environment; Arts and Sciences; Business and Economics; Communication and Information; Dentistry; Design; Education; Engineering; Fine Arts; Graduate School; Health Sciences; Honors; Law; Medicine; Nursing; Pharmacy; Public Health; and Social Work. These colleges are supported by a modern research library system.

Research at the University of Kentucky is a dynamic enterprise encompassing both traditional scholarship and emerging technologies. UK's research faculty, staff and students are establishing UK as one of the nation's most prolific public research universities. UK researchers were awarded more than \$452.9 million in extramural grant and contract funding in fiscal year 2022. Fifty-six percent of this funding comes from agencies in the federal government (\$256 million) such as the National Institutes of Health, National Science Foundation, Department of Energy, Department of Defense and numerous other federal, state and industry sponsors. Expenditures from research and development (R&D) activities at the university generate more than \$772 million in economic development across the Commonwealth of Kentucky and support more than 4,395 jobs.

With more than 70 research centers and institutes, UK researchers are discovering new knowledge, providing a rich training ground for current students and the next generation of researchers and advancing the economic growth of the Commonwealth of Kentucky. Several centers excel in the services offered to the public. The Gluck Equine Research Center is one of only three facilities of its kind in the world, conducting equine disease research.

The Center for Applied Energy Research (CAER) is internationally recognized for research in algae for carbon dioxide clean up, carbon materials, concrete and cement, emissions control in utilities, energy policy, fuels research, hydrogen, materials characterization, and plant optimization.

Among the brightest examples of UK's investment in transformative research is the Markey Cancer Center. As a center of excellence and distinction at UK, Markey's robust research and clinical enterprise is the cornerstone of our commitment to Kentucky – fundamental to our success in uplifting lives through our endeavors and improving the general health and welfare of our state – burdened by the nation's highest rate of cancer deaths per 100,000 people. In 2013, Markey earned the prestigious National Cancer Institute-designation (NCI) – one of 68 nationally and the only one in Kentucky. The designation was renewed in 2018.

Both CAER and Markey are cornerstones of seven Research Priority Areas (RPAs) at the University of Kentucky. These areas — chosen based on local relevance, existing funding strength, sustainability, and disciplinary scholarly diversity — focus UK's top research talent on the most pressing challenges confronting our state.

The University of Kentucky is the recipient of a Clinical Translational Sciences Award (CTSA) from the National Institutes of Health (NIH). As one of only 60 institutions with this research distinction, UK was awarded the CTSA for its potential in moving research and discovery in the lab into practical field and community applications. The CTSA and NCI are part of a trifecta of federal research grants that includes an Alzheimer's Disease Center. UK is one of only 29 universities in the country to hold all three premier grants from NIH.

Established in 1957, the medical center at UK is one of the nation's finest academic medical centers and includes the university's clinical enterprise, UK HealthCare. Licensed for 965 beds across UK Albert B. Chandler Hospital, Kentucky Children's Hospital and UK Good Samaritan Hospital, the system is supported by a growing faculty and staff providing the most advanced subspecialty care for the most critically injured and ill patients throughout the Commonwealth and beyond. Since 2014, the number of patients served by the medical enterprise has nearly doubled, with more than 38,000 discharges in 2022.

UK Chandler Hospital includes the only Level 1 Trauma Center for both adult and pediatric patients in Central and Eastern Kentucky. In addition, UK HealthCare recently opened one of the country's largest robotic hybrid operating rooms and the first of its kind in the region. While the new patient care pavilion is the leading health care facility for advanced medical procedures in the region, our talented physicians consult with and travel to our network of affiliate hospitals so Kentuckians can receive the best health care available close to their home and never need to leave the Bluegrass for complex subspecialty care.

As of December 1, 2022, King's Daughters Medical Center, based in Ashland, Kentucky, officially became part of the University of Kentucky. King's Daughters Medical Center serves a 16-county region across Kentucky, Ohio, and West Virginia. Its health system is composed of two acute-care hospitals totaling 465 licensed beds, more than 50 ambulatory centers and practice locations, a long-term care facility, medical transport company and six urgent care centers.

UK's agenda remains committed to accelerating the university's academic excellence in all areas and gaining worldwide recognition for its outstanding academic programs, its commitment to students, its investment in pioneering research and discovery, its success in building a diverse community and its engagement with the larger society. This commitment is all part of the university's mission as a 21st century flagship and land-grant research university. From its Nobel Laureates to cutting-edge work in addressing health disparities, and from the artistic wonders that stir souls to our scientific creativity that inspires minds, UK seeks a brighter future through the contributions of our faculty, staff, students and alumni.

We are the University of Kentucky. We are committed to advancing Kentucky in everything that we do.

SUSTAINABILITY

Sustainability is an institution-wide priority for the University of Kentucky. We strive to ensure that all activities are ecologically sound, socially just, and economically viable, and that they will continue to be so for future generations. This commitment also prioritizes the integration of these principles in curricula, research, athletics, health care, creative works, and outreach. This principled approach to operational practices and intellectual pursuits is intended to prepare students and empower the campus community to support sustainable development in the Commonwealth and beyond. The UK Sustainability Strategic Plan guides these efforts (https://www.uky.edu/sustainability/sustainability-strategic-plan).

2.4 Economic Inclusion and Procurement

The University of Kentucky is committed to serving as an advocate for diverse businesses and Kentucky located businesses. Diverse Business Enterprises (DBE) consist of minority, women, disabled, veteran, and disabled veteran owned business firms that are at least fifty-one percent owned and operated by an individual(s) of the aforementioned categories. Also included in this category are disabled business enterprises and non-profit work centers for the blind and severely disabled. To be deemed a Kentucky located Business a company must have a physical facility located in the Commonwealth of Kentucky that is engaged in on-going business operations.

The University is committed to increasing the amount of goods and services acquired from businesses owned and controlled by diverse persons to 10% of all procurement expenditures. The University expects its suppliers to support and assist in this effort. The University is also dedicated to increasing the amount of goods and services acquired from Kentucky located companies to the greatest extent possible in support of our economic development efforts.

Among the University's goals for DBE participation in procurement are:

- To ensure the absence of barriers that reduce their participation.
- Educate vendors on "how to" do business with the University.
- Support diverse and Kentucky located vendors seeking to do business with the University in the areas of goods, services, construction, and other areas of procurement.
- Encourage participation of qualified diverse and Kentucky located vendors by directing them to agencies that can benefit from their product or service.
- Provide resources for diverse and Kentucky located vendors.
- Sponsor events to assist diverse and Kentucky located vendors in becoming active, responsible, and responsive participants in the University's purchasing opportunities.

For additional information regarding how diverse and Kentucky located suppliers may participate in this Request for Proposal, submit any questions to the Procurement Officer as indicated in Section 3.2 by the Deadline for Written Questions date.

3.0 PROPOSAL REQUIREMENTS

3.1 Key Event Dates (all times are Lexington, KY prevailing times)

Release of RFP	03/20/2024
Pre-Proposal Conference (Voluntary)	03/26/2024 at 10:00AM via Zoom
Deadline for Written Questions	03/29/2024 at 1:00PM
Final Addendum (on or about)	04/02/2024
RFP Proposals Due	04/09/2024 at 3:00PM

3.2 Offeror Communication

All communications with the University regarding this RFP shall only be directed to the procurement officer listed above.

All addenda and updates will be communicated through the Lynn Imaging Planroom.

Plans, Specifications, and official solicitation documents are available from:

Lynn Imaging 328 Old Vine Street Lexington Kentucky 40507 Phone (859) 255-1021 Fax (859) 233-1558

In addition, Lynn Imaging and the University have a web site at: www.ukplanroom.com where plans can be ordered.

Interested vendors must identify the status of their firm as a prime contractor, miscellaneous subcontractor, material supplier or other when ordering Plans and Specifications.

3.3 Pre-Proposal Conference

A pre-proposal conference will be held in Lexington, Kentucky on 03/26/2024 at 3:00PM Via Zoom to allow prospective contractors an opportunity to ask questions and clarify the University's expectations. This conference provides offerors an opportunity for oral questions.

Meeting URL:

https://uky.zoom.us/j/87346497964?pwd=ZzZ1dmlmaERLYlphUC9jVGFjSlU1QT09&from=addon

Call in: 309-205-3325

Meeting ID: 873 4649 7964 Passcode: 918554

The following items should be noted in reference to the pre-proposal conference:

- Attendance at the pre-proposal conference is voluntary. At this conference, the scope of services will be discussed in detail.
- Offerors are encouraged to submit written questions after the conference by the date listed in Section 3.1.

The University will prepare written responses to all questions submitted and make them available to all offerors. The questions and answers will be made part of the RFP and may become part of the contract with the successful contractor. Answers given orally at the conference are not binding.

3.4 Offeror Presentations

All offerors whose proposals are judged acceptable for award may be required to make a presentation to the evaluation committee.

3.5 Preparation of Offers

The offeror is expected to follow all specifications, terms, conditions and instructions in this RFP.

The offeror will furnish all information required by this solicitation.

Proposals should be prepared simply and economically, providing a description of the offeror's capabilities to satisfy the requirements of the solicitation. Emphasis should be on completeness and clarity of content. All documentation submitted with the proposal should be bound in the single volume except as otherwise specified.

An electronic version of the RFP, in .PDF format only, is available through the University of Kentucky Purchasing Division website at: https://purchasing.uky.edu/bid-and-proposal-opportunities.

3.6 Proposed Deviations from the RFP

The stated requirements appearing elsewhere in this RFP shall become a part of the terms and conditions of any resulting contract. Any deviations therefrom must be specifically defined in accordance with the transmittal letter, Section 4.3 (d). Such deviations must not conflict with the basic nature of this RFP.

Note: Offerors shall not submit their standard terms and conditions as exceptions to the University's General Terms and Conditions. Each exception to the University's General Terms and Conditions shall be individually addressed.

3.7 Proposal Submission and Deadline

Offeror must provide the following materials prior to 3 p.m. (Lexington, KY time) on the date specified in Section 3.1 and addressed to the purchasing officer listed in Section 3.2:

- **Technical Proposal:** One (1) electronic storage device (USB) <u>clearly marked</u> with the proposal number and name, firm name and what is included (Technical Proposal) and two (2) printed copies
- **Financial Proposal:** One (1) electronic storage device (USB) <u>clearly marked</u> with the proposal number and name, firm name and what is included (Financial Offer) and two (2) printed copies

Do not password protect the electronic storage devices.

Proposals shall be enclosed in sealed envelopes to the above referenced address and shall show on the face of the envelope: the closing time and date specified, the solicitation number and the name and address of the offeror. The technical proposal shall be submitted in a sealed envelope and the financial proposal shall be submitted in a sealed envelope under separate cover. Both sealed envelopes shall have identical information on the cover, with the addition that one will state "Technical Information," and the other, "Financial Proposal."

Proposals received after the closing date and time will not be considered. In addition, proposals received via fax or e-mail are not acceptable.

Please note: the University of Kentucky accepts deliveries of RFPs Monday through Friday from 8 a.m. to 5 p.m. Lexington, KY time. However, RFPs must be received by 3 p.m. Lexington, KY time on the date specified on the RFP in order to be considered.

Note: In accordance with the Kentucky Revised Statute 45A.085, there will be no public opening.

3.8 Modification or Withdrawal of Offer

An offer and/or modification of offer received at the office designated in the solicitation after the exact hour and date specified for receipt will not be considered.

An offer may be modified or withdrawn by written notice before the exact hour and date specified for receipt of offers. An offer also may be withdrawn in person by an offeror or an authorized representative, provided the identity of the person is made known and the person signs a receipt for the offer, but only if the withdrawal is made prior to the exact hour and date set for receipt of offers.

3.9 Acceptance or Rejection and Award of Proposal

The University reserves the right to accept or reject any or all proposals (or parts of proposals), to waive any informalities or technicalities, to clarify any ambiguities in proposals and (unless otherwise specified) to accept any item in the proposal. In case of error in extension or prices or other errors in calculation, the unit price shall govern. Further, the University reserves the right to make a single award, split awards, multiple awards or no award, whichever is in the best interest of the University.

3.10 Rejection

Grounds for the rejection of proposals include (but shall not be limited to):

- Failure of a proposal to conform to the essential requirements of the RFP.
- Imposition of conditions that would significantly modify the terms and conditions of the solicitation or limit the offeror's liability to the University on the contract awarded on the basis of such solicitation.
- Failure of the offeror to sign the University RFP. This includes the Authentication of Proposal and Statement of Non-Collusion and Non-Conflict of Interest statements.
- Receipt of proposal after the closing date and time specified in the RFP.

3.11 Addenda

Any addenda or instructions issued by the purchasing agency prior to the time for receiving proposals shall become a part of this RFP. Such addenda should be acknowledged in the proposal. No instructions or changes shall be binding unless documented by a proper and duly issued addendum.

3.12 Disclosure of Offeror's Response

The RFP specifies the format, required information and general content of proposals submitted in response to this RFP. The purchasing agency will not disclose any portions of the proposals prior to contract award to anyone outside the Purchasing Division, the University's administrative staff, representatives of the state or federal government (if required) and the members of the committee evaluating the proposals. After a contract is awarded in whole or in part, the University shall have the right to duplicate, use or disclose all proposal data submitted by offerors in response to this RFP as a matter of public record.

Any submitted proposal shall remain valid six (6) months after the proposal due date.

The University shall have the right to use all system ideas, or adaptations of those ideas, contained in any proposal received in response to this RFP. Selection or rejection of the proposal will not affect this right.

3.13 Restrictions on Communications with University Staff

From the issue date of this RFP until a contractor is selected and a contract award is made, offerors are not allowed to communicate about the subject of the RFP with any University administrator, faculty, staff or members of the board of trustees except: the purchasing office representative, any University purchasing official representing the University administration, others authorized in writing by the purchasing office and University representatives during offeror presentations. If violation of this provision occurs, the University reserves the right to reject the offeror's proposal.

3.14 Cost of Preparing Proposal

Costs for developing the proposals and any subsequent activities prior to contract award are solely the responsibility of the offerors. The University will provide no reimbursement for such costs.

3.15 Disposition of Proposals

All proposals become the property of the University. The successful proposal will be incorporated into the resulting contract by reference.

3.16 Alternate Proposals

Offerors may submit alternate proposals. If more than one proposal is submitted, all must be complete (separate) and comply with the instructions set forth within this document. Each proposal will be evaluated on its own merits.

3.17 Questions

All questions should be submitted by either fax or e-mail to the purchasing officer listed in Section 3.2 no later than the date listed in Section 3.1.

3.18 Section Titles in the RFP

Section titles used herein are for the purpose of facilitating ease of reference only and shall not be construed to infer the construction of contractual language.

3.19 No Contingent Fees

No person or selling agency shall be employed or retained or given anything of monetary value to solicit or secure this contract, except bona fide employees of the offeror or bona fide established commercial or selling agencies maintained by the offeror for the purpose of securing business. For breach or violation of this provision, the University shall have the right to reject the proposal, annul the contract without liability, or, at its discretion, deduct from the contract price or otherwise recover the full amount of such commission, percentage, brokerage or contingent fee or other benefit.

3.20 Proposal Addenda and Rules for Withdrawal

Prior to the date specified for receipt of offers, a submitted proposal may be withdrawn by submitting a written request for its withdrawal to the University purchasing office, signed by the offeror. Unless requested by the University, the University will not accept revisions or alterations to proposals after the proposal due date.

3.21 Requirement To Perform Vendor Onboarding and Registration

As a condition of award, and for any renewals performed during the life of the contract, successful Contractor agrees to register their company with PaymentWorks, Inc., the University's vendor onboarding application. Registration information will be provided by the Purchasing Division as part of the award process. During the vendor registration process, successful Contractor agrees to provide any applicable information pertaining to diversity demographics for their company. Further, should any company or diversity information change during the life of the contract, successful Contractor agrees to update this information in PaymentWorks as applicable.

4.0 PROPOSAL FORMAT AND CONTENT

4.1 **Proposal Information and Criteria**

The following list specifies the items to be addressed in the proposal. Offerors should read it carefully and address it completely and in the order listed to facilitate the University's review of the proposal.

Proposals shall be organized into the sections identified below. The content of each section is detailed in the following pages. It is strongly suggested that offerors use the same numbers for the following content that are used in the RFP.

- Signed Authentication of Proposal and Statement of Non-Collusion and Non-Conflict of Interest Form
- Transmittal Letter
- Executive Summary and Proposal Overview
- Criteria 1 Offeror Qualifications
- Criteria 2 Services Defined
- Criteria 3 Financial Proposal
- Criteria 4 Evidence of Successful Performance and Implementation Schedule
- Criteria 5 Other Additional Information

4.2 <u>Signed Authentication of Proposal and Statements of Non-Collusion and Non-Conflict of Interest Form</u>

The Offeror will sign and return the proposal cover sheet and print or type their name, firm, address, telephone number and date. The person signing the offer must initial erasures or other changes. An offer signed by an agent is to be accompanied by evidence of their authority unless such evidence has been previously furnished to the purchasing agency. The signer shall further certify that the proposal is made without collusion with any other person, persons, company or parties submitting a proposal; that it is in all respects fair and in good faith without collusion or fraud; and that the signer is authorized to bind the principal offeror.

4.3 <u>Transmittal Letter</u>

The Transmittal Letter accompanying the RFP shall be in the form of a standard business letter and shall be signed by an individual authorized to legally bind the offeror. It shall include:

- A statement referencing all addenda and written questions, the answers and any clarifications to this RFP issued by the University and received by the offeror (If no addenda have been received, a statement to that effect should be included.).
- A statement that the offeror's proposal shall remain valid for six (6) months after the closing date of the receipt of the proposals.
- A statement that the offeror will accept financial responsibility for all travel expenses incurred for oral presentations (if required) and candidate interviews.

- A statement that summarizes any deviations or exceptions to the RFP requirements and includes a detailed justification for the deviation or exception.
- A statement that identifies the confidential information as described in Section 6.23.

4.4 Executive Summary and Proposal Overview

The Executive Summary and Proposal Overview should condense and highlight the contents of the technical proposal in such a way as to provide the evaluation committee with a broad understanding of the entire proposal.

As part of the Executive Summary and Proposal Overview, Offeror should submit with their response a summarized profile describing the demographic nature of their company or organization:

- 1. When was your organization established and/or incorporated?
- 2. Indicate whether your organization is classified as local, regional, national, or international.
- 3. Describe the size of your company in terms of number of employees, gross sales, etc.
- 4. Is your company certified as small business, minority-owned, women-owned, veteran-owned, disabled-owned, or similar classification?
- 5. Include other demographic information that you feel may be applicable to the Request for Proposal submission.
- 6. Offeror should describe in detail their company's commitment to diversity, equity, and inclusion and maximizing business opportunities for Kentucky-located businesses.

Business Classification	Check All That Apply
Kentucky-Located	
Minority-Owned	
Woman-Owned	
Small Business	
Veteran-Owned	
LGBTQ-Owned	
Disability-Owned Business Entity (DOBE)	
Classification Not Indicated	

4.5 <u>Criteria 1 - Offeror Qualifications</u>

The purpose of the Offeror Qualifications section is to determine the ability of the offeror to respond to this RFP. Offerors should describe and offer evidence of their ability to meet each of the qualifications listed below.

Our supply chains and business partnerships are an important aspect of this work. In your proposal, please (A) provide your company's mission and vision relative to sustainability, and (B) how your company, through services, products, and partnerships, will help the University of Kentucky advance specific elements of the Sustainability Strategic Plan.

- 1. Professional qualifications including history and organization, how the offeror would service a project in Kentucky, knowledge of the local market, offerors financial strength, and other information relevant to this project.
- 2. Please provide 3 to 5 examples of projects similar in size and scope with a Preconstruction Assistance Role. Highlight work at major universities/colleges.
 - a. Provide contract size
 - b. Provide year of completion
 - c. Was project completed within original stated budget and schedule?
 - d. Provide project references from Designers and CM/GC
- 3. Please provide information relating to your firm's specific regional experience working under a Preconstruction Assistance scenario.
- 4. Provide an organization chart and resumes for key personnel whom will be involved with the project including but not limited to executives, designers, engineers, project managers, and/or field personnel.

4.6 <u>Criteria 2 – Services Defined</u>

- Provide a brief narrative explaining how your company will accomplish the services described in this RFP, including number and type of staff (engineering, project management, etc.). In the narrative, please describe each phase of the work, (design, equipment selection, installation, training and after warranty service).
- 2. Please provide your company's approach to establishing and maintaining Target Budgets from current drawing sets to final Construction Drawings.
- 3. Please provide your company's approach to design/constructability review and value engineering.
- 4. Provide specific manufacturers recommendations for the design and fabrication of a complete system that meets the intent shown on the RFP Documents.

4.7 <u>Criteria 3 – Financial Proposal</u>

The Financial Summary Form shall contain the complete financial offer made to the University using the format contained in Section 8.0. All financial information must be submitted in a sealed envelope under separate cover.

4.8 Criteria 4 – Evidence of Successful Performance and Implementation Schedule

- 1. Please provide your company's approach to scheduling related to identification of long lead items, adhering to the time frame to complete Construction Drawings, and input to the Master Schedule regarding sequences and installation durations.
 - a. Provide detailed schedule indicating major activities from procurement through project completion and in accordance with Construction Schedule Milestones in section 7.1.

4.9 <u>Criteria 5 – Other Additional Information</u>

Please provide any additional information that the offeror feels should be considered when evaluating their proposal.

The offeror may present any creative approaches that might be appropriate. The offeror may also provide supporting documentation that would be pertinent to this RFP.

Offeror shall describe in detail their company's commitment to diversity, equity and inclusion. Information shall be provided as to the number of diverse individuals that the vendor employees as well as a description of vendors efforts to do business with Diverse Business Enterprises as they conduct their own business.

5.0 EVALUATION CRITERIA PROCESS

A committee of University officials appointed by the Chief Procurement Officer will evaluate proposals and make a recommendation to the Chief Procurement Officer. The evaluation will be based upon the information provided in the proposal, additional information requested by the University for clarification, information obtained from references and independent sources and oral presentations (if requested).

The evaluation of responsive proposals shall then be completed by an evaluation team, which will determine the ranking of proposals. Proposals will be evaluated strictly in accordance with the requirements set forth in this solicitation, including any addenda that are issued. The University will award the contract to the responsible offeror whose proposal is determined to be the most advantageous to the University, taking into consideration the evaluation factors set forth in this RFP.

The evaluation of proposals will include consideration of responses to the list of criteria in Section 4.0. Offerors must specifically address all criteria in their response. Any deviations or exceptions to the specifications or requirements must be described and justified in a transmittal letter. Failure to list such exceptions or deviations in the transmittal letter may be considered sufficient reason to reject the proposal.

The relative importance of the criteria is defined below:

Primary Criteria

- Offeror Qualifications
- Services Defined
- Financial Proposal
- Evidence of Successful Performance and Implementation

Secondary Criteria

Other Additional Services

The University will evaluate proposals as submitted and may not notify offerors of deficiencies in their responses.

Proposals must contain responses to each of the criteria, listed in Section 4 even if the offeror's response cannot satisfy those criteria. A proposal may be rejected if it is conditional or incomplete in the judgment of the University.

6.0 SPECIAL CONDITIONS

6.1 <u>Contract Term</u>

The contract resulting from this RFP shall be awarded by Turner Construction.

6.2 Effective Date

The effective date of the contract shall be the date upon which the parties execute it and all appropriate approvals, including that of the Commonwealth of Kentucky Government Contracts Review Committee, have been received.

6.3 <u>Competitive Negotiation</u>

It is the intent of the RFP to enter into competitive negotiation as authorized by KRS 45A.085.

The University will review all proposals properly submitted. However, the University reserves the right to request necessary modifications, reject all proposals, reject any proposal that does not meet mandatory requirement(s) or cancel this RFP, according to the best interests of the University.

Offeror(s) selected to participate in negotiations may be given an opportunity to submit a Best and Final Offer to the purchasing agency. All information-received prior to the cut-off time will be considered part of the offeror's Best and Final Offer.

The University also reserves the right to waive minor technicalities or irregularities in proposals providing such action is in the best interest of the University. Such waiver shall in no way modify the RFP requirements or excuse the offeror from full compliance with the RFP specifications and other contract requirements if the offeror is awarded the contract.

6.4 **Appearance Before Committee**

Any, all or no offerors may be requested to appear before the evaluation committee to explain their proposal and/or to respond to questions from the committee concerning the proposal. Offerors are prohibited from electronically recording these meetings. The committee reserves the right to request additional information.

6.5 Additions, Deletions or Contract Changes

The University reserves the right to add, delete, or change related items or services to the contract established from this RFP. No modification or change of any provision in the resulting contract shall be made unless such modification is mutually agreed to in writing by the contractor and the Chief Procurement Officer and incorporated as a written modification to the contract. Memoranda of understanding and correspondence shall not be interpreted as a modification to the contract.

6.6 Contractor Cooperation in Related Efforts

The University reserves the right to undertake or award other contracts for additional or related work to other entities. The contractor shall fully cooperate with such other contractors and University employees and carefully fit its work to such additional work. The contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by University employees. This clause shall be included in the contracts of all contractors with whom this contractor will be required to cooperate. The University shall equitably enforce this clause to all contractors to prevent the imposition of unreasonable burdens on any contractor.

6.7 <u>Entire Agreement</u>

The RFP shall be incorporated into any resulting contract. The resulting contract, including the RFP and those portions of the offeror's response accepted by the University, shall be the entire agreement between the parties.

6.8 Governing Law

The contractor shall conform to and observe all laws, ordinances, rules and regulations of the United States of America, Commonwealth of Kentucky and all other local governments, public authorities, boards or offices relating to the property or the improvements upon same (or the use thereof) and will not permit the same to be used for any illegal or immoral purposes, business or occupation. The resulting contract shall be governed by Kentucky law and any claim relating to this contract shall only be brought in the Franklin Circuit Court in accordance with KRS 45A.245.

6.9 <u>Kentucky's Personal Information Security and Breach Investigation Procedures and Practices Act</u>

To the extent Company receives Personal Information as defined by and in accordance with Kentucky's Personal Information Security and Breach Investigation Procedures and Practices Act. KRS 61.931, 61.932 and 61.933 (the "Act"), Company shall secure and protect the Personal Information by, without limitation: (i) complying with all requirements applicable to non-affiliated third parties set forth in the Act; (ii) utilizing security and breach investigation procedures that are appropriate to the nature of the Personal Information disclosed, at least as stringent as University's and reasonably designed to protect the Personal Information from unauthorized access, use, modification, disclosure, manipulation, or destruction; (iii) notifying University of a security breach relating to Personal Information in the possession of Company or its agents or subcontractors within seventy-two (72) hours of discovery of an actual or suspected breach unless the exception set forth in KRS 61.932(2)(b)2 applies and Company abides by the requirements set forth in that exception; (iv) cooperating with University in complying with the response, mitigation, correction, investigation, and notification requirements of the Act, (v) paying all costs of notification, investigation and mitigation in the event of a security breach of Personal Information suffered by Company; and (vi) at University's discretion and direction, handling all administrative functions associated with notification, investigation and mitigation.

6.10 Termination for Convenience

The University of Kentucky, Purchasing Division, reserves the right to terminate the resulting contract without cause with a thirty (30) day written notice. Upon receipt by the contractor of a "notice of termination," the contractor shall discontinue all services with respect to the applicable contract. The cost of any agreed upon services provided by the contractor will be calculated at the agreed upon rate prior to a "notice of termination" and a fixed fee contract will be pro-rated (as appropriate).

6.11 Termination for Non-Performance

Default

The University may terminate the resulting contract for non-performance, as determined by the University, for such causes as:

- Failing to provide satisfactory quality of service, including, failure to maintain adequate
 personnel, whether arising from labor disputes, or otherwise any substantial change in
 ownership or proprietorship of the Contractor, which in the opinion of the University is not in its
 best interest, or failure to comply with the terms of this contract;
- Failing to keep or perform, within the time period set forth herein, or violation of, any of the covenants, conditions, provisions or agreements herein contained;
- Adjudicating as a voluntarily bankrupt, making a transfer in fraud of its creditors, filing a petition under any section from time to time, or under any similar law or statute of the United States or any state thereof, or if an order for relief shall be entered against the Contractor in any proceeding filed by or against contractor thereunder. In the event of any such involuntary bankruptcy proceeding being instituted against the Contractor, the fact of such an involuntary petition being filed shall not be considered an event of default until sixty (60) days after filing of said petition in order that Contractor might during that sixty (60) day period have the opportunity to seek dismissal of the involuntary petition or otherwise cure said potential default; or
- Making a general assignment for the benefit of its creditors, or taking the benefit of any
 insolvency act, or if a permanent receiver or trustee in bankruptcy shall be appointed for the
 Contractor.

Demand for Assurances

The University may make demands for reasonable assurances that Contractor will be able to timely perform all obligations under the Contract. If Contractor is unable to provide such adequate assurances, then such failure shall be an event of default and grounds for termination of the Contract.

Notification

The University will provide ten (10) calendar days' written notice of default. Unless arrangements are made to correct the non-performance issues to the University's satisfaction within ten (10) calendar days, the University may terminate the contract by giving forty-five (45) days' written notice of its intent to cancel this contract.

6.12 Funding Out

The University may terminate this contract if funds are not appropriated or are not otherwise available for the purpose of making payments without incurring any obligation for payment after the date of termination, regardless of the terms of the contract. The University shall provide the contractor thirty (30) calendar days' written notice of termination under this provision.

6.13 Prime Contractor Responsibility

Any contracts that may result from the RFP shall specify that the contractor(s) is/are solely responsible for fulfillment of the contract with the University.

6.14 Assignment and Subcontracting

The Contractor(s) may not assign or delegate its rights and obligations under any contract in whole or in part without the prior written consent of the University. Any attempted assignment or subcontracting shall be void.

6.15 Permits, Licenses, Taxes

The contractor shall procure all necessary permits and licenses and abide by all applicable laws, regulations and ordinances of all federal, state and local governments in which work under this contract is performed.

The contractor must furnish certification of authority to conduct business in the Commonwealth of Kentucky as a condition of contract award. Such registration is obtained from the Secretary of State, who will also provide the certification thereof. However, the contractor need not be registered as a prerequisite for responding to the RFP.

The contractor shall pay any sales, use, personal property and other tax arising out of this contract and the transaction contemplated hereby. Any other taxes levied upon this contract, the transaction or the equipment or services delivered pursuant hereto shall be the responsibility of the contractor.

The contractor will be required to accept liability for payment of all payroll taxes or deductions required by local and federal law including (but not limited to) old age pension, social security or annuities.

6.16 Attorneys' Fees

In the event that either party deems it necessary to take legal action to enforce any provision of the contract and in the event that the University prevails, the contractor agrees to pay all expenses of such action including attorneys' fees and costs at all stages of litigation.

6.17 Royalties, Patents, Copyrights and Trademarks

The Contractor shall pay all applicable royalties and license fees. If a particular process, products or device is specified in the contract documents and it is known to be subject to patent rights or copyrights, the existence of such rights shall be disclosed in the contract documents and the Contractor is responsible for payment of all associated royalties. To the fullest extent permitted by law the Contractor shall indemnify, hold the University harmless, and defend all suits, claims, losses, damages or liability resulting from any infringement of patent, copyright, and trademark rights resulting from the incorporation in the Work or device specified in the Contract Documents.

Unless provided otherwise in the contract, the Contractor shall not use the University's name nor any of its trademarks or copyrights, although it may state that it has a Contract with the University.

6.18 <u>Indemnification</u>

The contractor shall indemnify, hold and save harmless the University, its affiliates and subsidiaries and their officers, agents and employees from losses, claims, suits, actions, expenses, damages, costs (including court costs and attorneys' fees of the University's attorneys), all liability of any nature or kind arising out of or relating to the Contractor's response to this RFP or its performance or failure to perform under the contract awarded from this RFP. This clause shall survive termination for as long as necessary to protect the University.

6.19 Insurance

See: Special Conditions, E&O Insurance Provisions

6.20 Method of Award

It is the intent of the University to award a contract to the qualified offeror whose offer, conforming to the conditions and requirements of the RFP, is determined to be the most advantageous to the University, cost and other factors considered.

Notwithstanding the above, this RFP does not commit the University to award a contract from this solicitation. The University reserves the right to reject any or all offers and to waive formalities and minor irregularities in the proposal received.

6.21 Reciprocal Preference

In accordance with KRS 45A.494, a resident offeror of the Commonwealth of Kentucky shall be given a preference against a nonresident offeror. In evaluating proposals, the University will apply a reciprocal preference against an offeror submitting a proposal from a state that grants residency preference equal to the preference given by the state of the nonresident offeror. Residency and non-residency shall be defined in accordance with KRS 45A.494(2) and 45A.494(3), respectively. Any offeror claiming Kentucky residency status shall submit with its proposal a notarized affidavit affirming that it meets the criteria as set forth in the above reference statute.

6.22 Reports and Auditing

All records relating directly or indirectly to the Project which are in the possession or control of Contractor shall be made available to Owner, its designee, and any governmental authority for audit, inspection, and copying upon the request of the Owner or the Owner's Representative(s). Such records include, without limitation: all drawings, specifications, Submittals, subcontractor bids, subcontracts, the Daily Log, correspondence, the Request Log, the Submittal Log, minutes, memoranda, tape or videotape recordings, or other writings or things which document the Project, its design, and its construction.

6.23 Confidentiality

The University recognizes an offeror's possible interest in preserving selected information and data included in the proposal; however, the University must treat such information and data as required by the Kentucky Open Records Act, KRS 61.870, et seq.

Information areas which normally might be considered proprietary, and therefore confidential, shall be limited to individual personnel data, customer references, formulae and company financial audits which, if disclosed, would permit an unfair advantage to competitors. If a proposal contains information in these areas and the offeror declares them to be proprietary in nature and not available for public disclosure, the offeror shall declare in the Transmittal Letter the inclusion of proprietary information and shall noticeably label as confidential or proprietary each sheet containing such information. Proposals containing information declared by the offeror to be proprietary or confidential, either wholly or in part, outside the areas listed above may be deemed non-responsive and may be rejected.

The University's General Counsel shall review each offeror's information claimed to be confidential and, in consultation with the offeror (if needed), make a final determination as to whether or not the confidential or proprietary nature of the information or data complies with the Kentucky Open Records Act.

6.24 Conflict of Interest

This Request for Proposal and resulting Contract are subject to provisions of the Kentucky Revised Statutes regarding conflict of interest and the University of Kentucky's Ethical Principles and Code of Conduct (www.uky.edu/Legal/ethicscode.htm). When submitting and signing a proposal, an offeror is certifying that no actual, apparent or potential conflict of interest exists between the interests of the University and the interests of the offeror. A conflict of interest (whether contractual, financial, organizational or otherwise) exists when any individual, contractor or subcontractor has a direct or indirect interest because of a financial or pecuniary interest, gift or other activities or relationships with other persons (including business, familial or household relationships) and is thus unable to render or is impeded from rendering impartial assistance or advice, has impaired objectivity in performing the proposed work or has an unfair competitive advantage.

Questions concerning this section or interpretation of this section should be directed to the University purchasing officer identified in this RFP.

6.25 <u>Personal Service Contract Policies</u>

Not applicable

6.26 Copyright Ownership and Title to Designs and Copy

The contractor and University intend this RFP to result in a contract for services, and both consider the products and results of the services to be rendered by the contractor hereunder to be a work made for hire. The contractor acknowledges and agrees that the work and all rights therein, including (without limitation) copyright, belongs to and shall be the sole and exclusive property of the University. For any work that is not considered a work made for hire under applicable law, title and copyright ownership shall be assigned to the University.

Title to all dies, type, cuts, artwork, negatives, positives, color separations, progressive proofs, plates, copy and any other requirement not stated herein required for completion of the finished product for use in connection with any University job shall be the property of and owned by the University. Such items shall be returned to the appropriate department upon completion and/or delivery of work unless otherwise authorized by the University. In the event that time of return is not specified, the contractor shall return all such items to the appropriate University department within one week of delivery.

6.27 <u>University Brand Standards</u>

The contractor must adhere to all University of Kentucky Brand Standards. University Brand Standards are maintained by the University Public Relations Office (UKPR) and can be viewed at http://www.uky.edu/prmarketing/brand-standards. Non-adherence to the standards can have a penalty up to and including contract cancellation. Only the UKPR Director or designee can approve exceptions to the University standards.

Graphics standards for the UK HealthCare areas are governed by UK HealthCare Clinical Enterprise Graphic Standards, found at: https://ukhealthcare.uky.edu/staff/brand-strategy.

Contractor warrants that its products or services provided hereunder will be in compliance with all applicable Federal disabilities laws and regulations, including without limitation the accessibility requirements of Section 255 of the Federal Telecommunications Act of 1996 (47 U.S.C. § 255) and Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794d), and its implementing regulations set forth at Title 36, Code of Federal Regulations, Part 1194. For purposes of clarity, updated regulations under Section 508 standards now incorporate WCAG 2.0, and for purposes of this agreement WCAG 2.0 Level AA compliance is expressly included. Contractor agrees to promptly respond to, resolve and remediate any complaint regarding accessibility of products or services in a timely manner and provide an updated version to University at no cost. If deficiencies are identified, University reserves the right to request from Contractor, a timeline by which accessibility standards will be incorporated into the products or services provided by Contractor and shall provide such a timeline within a commercially reasonable duration of time. Failure to comply with these requirements shall constitute a material breach of this Agreement and shall be grounds for termination of this Agreement.

Where any customized web services are provided, Contractor represents that it has reviewed the University's Web Policy and all products or services will comply with its published standards.

Contractor will provide University with a current Voluntary Product Accessibility Template (VPAT) for any deliverable(s). If none is available, Vendor will provide sufficient information to reasonably assure the University that the products or services are fully compliant with current requirements.

6.28 **Printing Statutes**

Not applicable

6.29 Requirement for Contract Administration Fee

Not applicable

6.30 Payment Terms

The selected vendor will enter a subcontract with Turner Construction Company. Payment terms are addressed therein.

7.0 SCOPE OF SERVICES

The terms "Sub-contractor", "Trade contractor" & "Contractor" will be used interchangeably throughout the contract documents. A Sub-contractor, Trade contractor or contractor has a contract with Turner Construction Company, the Construction Manager. This Trade Contractor is responsible for all contract documents (specifications, drawings and scope of work). In the event of a conflict, this scope of work takes precedence.

The scope of work in this Trade Contract includes all labor, material, equipment, services, and supervision necessary to complete all work specified herein, in accordance with the Contract Documents. All work will be completed in accordance with local codes and ordinances. This work shall include but not be limited to the following (see section 7.1 for details):

7.1 <u>Detailed Services Defined</u>

The following information is intended to clarify and or further define the scope of work included in the bid documents. This shall not be construed as the entire scope of work for this work category. All work described or indicated in the respective specification sections or divisions listed shall be included, except as specifically excluded herein.

- 1. All work of this Trade Contractor shall be properly coordinated with the Lexington Fayette Urban County Government (LFUCG), University of Kentucky, and any other authorities having jurisdiction inclusive of premium time for night work required by said authorities.
- 2. This Trade Contractor is responsible for all work required to provide turnkey, complete, and operational systems in accordance with the Contract Documents. The term "provide" is interchangeable with "furnish and install" unless otherwise clarified in this document or attachments.
- 3. The General Building Permit will be provided by others. Obtain all required permits to complete this scope. Furnish copies of all permits to the Construction Manager.
- 4. All guardrail, perimeter rail, tie-off connections, or any other material/equipment necessary to perform this contract safely is included in this contract.
- 5. All unloading, distribution, staging, hoisting, rigging, scaffolding, platforms, ladders, planking, guying, sheeting, shoring, dewatering, bracing, transportation, access for material, equipment and personnel required to perform this work is included in this contract.
- 6. All engineering and layout to complete this scope of work is included in this contract including protection of reference points and replacement of such points that are lost or damaged during the execution of this work. The Trade Contractor is responsible for all lines, elevations, and measurements executed under this contract. The Trade Contractor shall layout and establish all lines and elevations required for this work. The Trade Contractor shall verify figures and dimensions shown on the drawings or indicated in the approved shop drawings before laying out the work. Verify conditions and dimensions of previously installed work. Report any perceived inconsistency or error in drawings, layout, or previously installed work to the Construction Manager prior to proceeding with the work.
- 7. This Trade Contractor is required to sign Turner form 36 subcontract agreement included in the scope of work manual, which takes precedence over the General & Special Conditions
- 8. Attachment "G" is a conceptual level construction/design schedule. This is preliminary and is intended to be used as information only to understand sequencing/logistics of the project. The schedule is a dynamic tool and is routinely being developed as information is gained from design requirements.
 - a. Project will utilize Lean Scheduling methods through the use of pull planning schedule meetings. Subcontractor's Project Manager and Superintendent will be required to attend pull plan schedule sessions in-person as required.
- 9. Include attending the following mandatory meetings through the duration of this scope of work:
 - a. Once a week Coordination Meeting (approx. 1hr) for two weeks prior to mobilizing and for duration of this scope's work.
 - b. Daily Trade huddles (approx. 15-20 mins). Lead superintendent/foreman is required to attend.

- c. Preparatory Meetings prior to first installation of a feature of work as identified in this scope of work (approx. 1-3hrs). Project manager, safety manager and site superintendent/foreman and specialty subcontractor representatives are required to attend.
- d. Daily stretch and flex and PTP reviews each morning prior to work on-site.
- 10. This Subcontractor shall include work on overtime, at no additional cost as required, to maintain the construction schedule. Lost time due to inclement weather must be made up either by working extended hours during the workweek, or by working weekends as required to maintain the construction schedule. Include the cost for overtime and shift work as may be required to ensure that all milestone dates are met.
- 11. Onsite storage is limited. Include off-site storage as necessary to ensure "Just-in-Time" deliveries of greenhouse assemblies. There is to be no obstructions or material storage that will prevent flow of traffic around the building and to the construction hoist.
- 12. This contractor is to provide their own hoisting, rigging and lifting as necessary. This includes any necessary coordination, supervision, special rigging, and other operating personnel and equipment for installation. Coordinate logistics and setup for any and all required equipment with CM. Provide CM with minimum 2 weeks notice prior to mobilization of equipment for confirmation of site logistics.
- 13. NOTE: Project will have exterior vertical transportation (construction hoist) for use for materials and personnel as concrete floors are poured. Assume car capacity is 6000 lbs. Approx. Dimensions of cars will be 12'4"L x 4'8"W x 7'2"H.
 - a. All material deliveries will need to be scheduled.
 - b. Hoist operations for material deliveries will be coordinated with other activities on-site such as personnel transportation and debris removal from the building.
 - c. Assume deliveries/transport on hoist will only be able to occur between 7:30 am to 4:30 pm
- 14. Contract Price is LUMP SUM. There shall be NO additional labor and material escalations allowed.
- 15. Examination of Site Subcontractor warrants that they have sufficiently reviewed the project site to inform themselves of all items about existing site that are relevant to their work, and the cost of their work.
- 16. Include protection of all adjacent structures during performance of this work. Plan for protection of adjacent structures must be part of the overall plan submitted for approval prior to start of work.
- 17. SITE LOGISTICS: Refer to the Site Logistics plans included in the Contract Documents (Attachment M). Delivery trucks are to be scheduled with Turner at least one (1) week in advance.
- 18. Subcontractor change order requests shall be provided with sufficient detail (as acceptable to Turner) to allow for satisfactory review. Subcontractor shall be allowed a maximum mark up for overhead and profit per the markup provisions included in the Subcontract Agreement, or as clarified in Contract Documents above.
- 19. Subcontractor understands that time is of the essence in the prosecution of Work under this agreement.

- 20. All Subcontractors must be licensed as required by local, State, or Federal jurisdiction required for work of this trade in this project location.
- 21. Multiple mobilizations may be required for this scope of work.
 - a. Base bid for greenhouses on the roof may not occur concurrently with greenhouses at grade or alternate work.
- 22. This contractor shall include necessary supervision normal and customary to the scope of work of this size, difficulty, and scale.
- 23. This Subcontractor will comply with Turner's corporate safety policy contained in Attachment "C" of this RFP.
 - a. Note the requirements for a full time Safety Manager
- 24. Provide **Greenhouses** COMPLETE in accordance with the documents.
 - a. The intent of this scope is to provide information to the Greenhouse Contractor for a 100% guaranteed maximum price. The Greenhouse Contractor must provide all necessary costs for completion of the project documents to 100% Construction Document level. This contractor will also assist the Architect with the finalization for the project design, per Attachment "G" Bid Schedule. The Greenhouse Contractor will participate in biweekly design discussions with the Architect & Structural Engineer and provide preliminary shop drawings. It is the responsibility of the Greenhouse Contractor to design and fabricate a complete system that works with the building systems. Change orders will only be permitted for additional scope added by the Owner or Architect over and beyond the provided parameters.
 - b. Provide all MEP Trade Contractors with all wiring and piping diagrams and/or any other special information which may be required for the proper coordination and/or final hookup of equipment.
 - c. This contractor to coordinate structural loading parameters with design team for consideration of any suspended MEP equipment and lighting that will require support from greenhouse structures.
 - d. Provide delegated design for greenhouse. Include all necessary drawings and calculations, stamped and approved by Professional Engineer.
 - i. Take special consideration of elevated location of greenhouse and structural substrates.
 - ii. Provide fully bolted/mechanically fastened design. Confirm no welding is required for construction.
 - e. Final shop drawings will be required for approval by the project design team prior to final material ordering. It is the intent that shop drawings will be produced as the design progresses and final shop drawings will be complete on or before the construction documents. Reference Attachment G Bid Schedule Activity ID PRE120.
- 25. This contractor to provide and deliver all necessary embeds, anchor bolts, etc. with dimensions and locations as applicable to this scope of work that occur in cast in place concrete.
- 26. Coordinate all with roofing and façade contractors to maintain watertight conditions at all adjoining materials.

- a. Include any flashing, sealants, terminations as required at all bearing locations including rooftop, kneewall, etc.
- b. This contractor to assume all greenhouses will bear on concrete knee walls, 2' to 3' in height.
- c. Assume all installation is to occur after roofing is complete.
 - i. Include roof protection (2" rigid insulation with 3/4" rubber mat) for any lay-down areas required on installed roofing during greenhouse installation. Roof protection walkways to be provided by others. Remove roof protection upon completion of work.
- 27. Provide and install all plant growth lighting and associated rack systems, unit heaters, boiler package, high pressure fog system, plant growing benches, planter tables & misting and/or irrigation systems.
- 28. Provide and install all decorative trim, ridge cresting, painted or anodized finishes as selected by owner and design team.
- 29. Provide and install motorized energy shading & blackout control systems.
- 30. Include all taxes.
- 31. This contractor to coordinate power requirements with CM. This contractor shall provide their own power for equipment, tools, etc... as necessary for installation of their equipment.
- 32. Provide all winter weather protection required to perform this scope of work, including but not limited to temporary heat.
- 33. Provide all fire safing and firestopping of any penetrations made by this contractor.
- 34. This contractor shall include and participate in commissioning as required for all systems provided.
- 35. Include training and maintenance as required for complete system turnover.

A. Work Excluded

This Scope of Work shall exclude the following:

- 1. Structural kneewalls
- 2. Specialty flooring

7.2 Optional Services

None

8.0 FINANCIAL OFFER SUMMARY

Offerors are to provide a fixed price for the services offered.

8.1 Mandatory Services (Section 7.1)

Please complete and attach Section 7.1 to provide support for your firm fixed price offer.

The Offeror agrees to furnish all labor, materials, supplies and services required to complete the Work, for the above referenced Project, for the Capital Construction Procurement Section, University of Kentucky, as described in the Specifications and Contract Documents and shown on the Drawings enumerated below and as modified by the Addenda listed above.

	BASE OFFER			
	FOR THE LUMP SUM OF		(1105 14/0550)	
			(USE WORDS)	
		DOLLARS AND		CENTS.
	(USE WORDS)		(USE WORDS)	
	(\$)		
8.2	Optional Services (Section 7.2)			
	None			
8.3	Alternate Pricing			
	Alternate #1 – South Wing Greenh	nouses (See Attachment "O")		
	Bond Cost			
	Cost of Performance and Paymen	t Bond (Base Offer + Alternate	es)\$	

<u>DO NOT INCLUDE THIS COST IN YOUR BASE OFFER OR ALTERNATES</u>

8.5 Cost Breakdown

Fill in the following breakdown of costs included in your base offer. Each item is to include labor, material & equipment. These will neither be considered unit prices nor will the numbers listed here limit obligations required in the solicitation documents. It will be used only to aid in verifying completeness of the offers.

DESCRIPTION OF WORK	COST INCLUDED IN OFFER
Engineering, design coordination, permits & fees	\$
Design Assist	\$
Shop drawings & submittals	\$
Rooftop Greenhouses, complete	\$
Greenhouse Speciality Equipment	\$
Teaching Greenhouse	\$
Remaining work not listed above,	\$
Overhead & Profit	\$
TOTAL BASELINE AMOUNT (SHOULD MATCH PROPOSAL)	\$

Additional Financial Commitment

In addition to the financial offers, please propose a financial commitment to assist the University. Options may include a signing bonus, scholarships, internships, commitment to hire University Graduates or a (%) percentage rebate.

8.6 <u>Unit Prices</u>

NOTE: Unit Prices shall include the furnishing of all labor, materials, supplies and services and shall include all items of cost, overhead and profit for the Contractor and any subcontractor involved, and shall be used uniformly without modifications for either additions or deductions. The Unit Prices as established shall be used to determine the equitable adjustment of the Contract Price in connection with changes, deletions or extra work performed under the Contract and the "Rules of Measurement" set forth in the General Conditions shall govern.

All Offerors will be required to complete and submit the following information with the <u>proposal</u>. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

DESCRIPTION OF WORK	<u>UNIT PE</u>	<u>UNIT PRICE</u>	
Rooftop Greenhouse	\$	<u>/</u> s.f.	
Teaching Greenhouse	\$	/s.f.	

8.7 Allowances

8.8 Schedule of Values

Within seven (7) days after the contract signing, the SUCCESSFUL OFFEROR is to provide a breakdown for Monthly progress billing purposes in a format furnished by the Construction Manager. Each item is to be separated into Labor and Material, except Allowances. Minimum line items will be included for CCIP, Mobilization, Engineering/ Submittals, Safety, Clean Up, Close-Out, Punchlist, Record Drawings, Warranty, etc. The Successful Contractor is to list MBE/WBE Subcontracts and Purchase Orders separately in the Schedule of Values.

The Successful Contractor is to list MBE/WBE Subcontracts and Purchase Orders separately in the Schedule of Values.

8.9 Supplemental Information

- 1. Company Financial Statement
 - * Pursuant to KRS 45A.110, if the offeror wishes nondisclosure of certain information he/she shall enclosed the confidential information in a separate envelope marked CONFIDENTIAL and forward it with the information and other submittals required by this document.

9.0 DRAWINGS AND SPECIFICATIONS

The following is a listing of contract documents:

1. Attachment "O" - Greenhouse Narrative

The Offeror hereby acknowledges receipt of the following Addenda:

The Offeror, in compliance with your Request for Proposal for the above referenced Project, having carefully examined the site of the Work, the Drawings and complete Contract Documents as defined in Article I of the General Conditions, as well as the Specifications affecting the work as prepared by the Consultant, hereby proposes to furnish all labor, materials, supplies and services required to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the price stated below without qualification. Offeror understands that successful offeror will enter into a contract with Turner Construction Company utilizing Turner's Subcontract Agreement Form 36 without modification.

ADDENDUM NO	DATED
ADDENDUM NO	DATED
ADDENDUM NO (Here insert the number and date of any Addenda is and received, the word NONE should be inserted.)	DATEDssued and received. If none has been issued

Construct AG Research Building UK PROJECT 2617.0

Attachment "A" ADDITIONAL PROVISIONS

A. GENERAL

Attachment A – Additional Provisions and Attachment B – (Technical) Scope of Work go together to define the requirements of this Subcontract. Attachment A is a more of a general Summary of the Contract Documents, Price, etc., while Attachment B is the Trade Specific (technical) Scope of Work.

The Additional Provisions and Scope of Work is intended to be general in nature. The intention is to have this Subcontractor perform all related work shown on the Contract Documents other than those items specifically indicated below to be excluded. The Additional Provisions and Scope of Work takes precedence over the Drawings & Specifications in the event of a conflict in trade assignment or responsibility. By accepting this contract, the Subcontractor is verifying that the plans and specifications clearly identify the Subcontractor's work.

The terms "Sub-contractor", "Trade contractor" & "Contractor" will be used interchangeably throughout the contract documents. A Sub-contractor, Trade contractor or contractor has a contract with Turner Construction Company, the Construction Manager. This Trade Contractor is responsible for all contract documents (specifications, drawings and scope of work).

B. CONTRACT DOCUMENTS

- Contract Drawings University of Kentucky AG Research Building #2617.0 as prepared by BHDP Architects
- Project Manual, prepared by Turner Construction & BHDP Architects. University of Kentucky AG Research Building
- Addendum #__ dated ____ prepared by Turner
- Addendum #__ dated ____ prepared by Turner
- Addendum #__ dated ____ prepared by Turner
- Addendum # dated prepared by Turner

C. ADDITIONAL CONTRACT DOCUMENTS

- Attachment "B" Trade Contractor ____ Scope of Work
- Project General Requirements
- Project General Conditions
- Project Special Conditions
- Turner Subcontract Form 36
- Attachment "C" Project Safety Program
- Attachment "E" Accounting Procedures
- Attachment "F" Percentage Markup Sheet
- Attachment "G" Project Schedule
- Attachment "I" Lean Subcontract Exhibit
- Attachment "J" Electronic Agreement
- Attachment "K" CCIP Manual dated to be issued by Addendum
- Attachment "L" UK Tree Protection Standard
- Attachment "M" Site Logistics Plan
- Attachment "N" Turner Subcontractor Onboarding
- Sketches SK-002 through SK-009 (ADD #1)
- Note: The General Building Permit will be provided by the others (architect). Obtain all other required permits; submit copies to the Construction Manager.
- Note: This Trade Contractor is required to sign Turner form 36 subcontract agreement included in the scope of work manual, which takes precedence over the General & Special Conditions
- All "Additional Contract Documents" have either been provided to Subcontractor, or are attached to this
 contract. Signature of Contract by Subcontractor indicates receipt and acceptance of these documents as part
 of the Contract.
- All contractors shall refer to Attachment N for the Subcontractor Onboarding Instructions. Contractors are encouraged to complete this process prior to bid opening, as it will expedite contracting with Turner. (ADD #1)

Attachment "A" ADDITIONAL PROVISIONS

D. CONSTRUCTION SCHEDULE

- Refer to Project Milestone schedule (ATTACHMENT "G") included in project manual.
- Shift work, multiple mobilizations, and out of sequence work will be required. It is imperative that all milestones be met. The Bidders shall include all necessary costs, including, but not limited to, premium time, shift work, out of sequence work, etc. to meet these milestones.
- Due to the critical nature of the schedule, the Trade Contactor must supply the Construction Manager a detailed plan for his production on the project within 20 calendar days of Contract Award. Please note that this plan must be compatible and complimentary to the Project Schedule. Plan shall include the following items:
 - A. Starting, peak, and final manpower requirements, including subcontractors. Include production rates if requested
 - B. Shift work plan.
 - C. Number of Foremen
 - D. Anticipated lead times and permit approval.
 - E. The Trade Contractor shall work with the Construction Manager and Contractors in "Pull Planning" and the 6-week look-ahead schedule, including manpower information, on a weekly basis. Compliance is a prerequisite for payment.

E. WORK INCLUDED

Refer to Attachment "B" - Scope of Work

F. SPECIAL REQUIREMENTS

- <u>Sales/Use Tax Status</u>: Refer to "Instruction to Bidders" of Bid Manual for details. This project is taxable, all applicable taxes in your bid.
- Prevailing Wage: N/A, not required.
- <u>Insurance Program:</u> This Project shall utilize a Contractor Controlled Insurance Program ("CCIP"). Refer to attachment D of Bid Manual for details, instructions, etc.
- Retainage: If job is Kentucky (any job) Retainage Conditions shall be in accordance with the "Fairness in Construction Act" of 2007. Namely, Retainage for all Subcontractors shall be 10% until both the Project and the Subcontractor achieves 50% completion. At that point, retainage for all Subcontractors shall be reduced to 5% of Total Contract Value.
- E&O Insurance: N/A
- <u>Builders Risk:</u> (policy by Turner). Refer to Project General Requirements document for details including responsibility for deductible. Any such event occurring upon the Work site, covered under Builder's Risk policy and for which a claim is filed, the causing subcontractor shall be held responsible to incur the deductible cost of this policy in its entirety for said occurrence.
- Application for Payment: Unless otherwise directed or authorized, in writing, by Contractor, all Applications for Payment and all supporting documents (including but not limited to lien waivers, sworn statements, and the like) for Subcontractor and its sub-subcontractors and suppliers, shall be in electronic format and shall be submitted to Contractor using the Textura-CPM™ payment management system. Subcontractor shall be responsible for the fees and costs owed associated with Subcontractor's use of the Textura-CPM™ payment management system. Subcontractor shall include a similar provision in its sub-subcontracts and purchase orders. Fees to Subcontractors are calculated as 0.22% (22 basis points) of contract value, with a minimum fee of \$50 and a maximum fee of \$3,750. Fees to Subcontractors' sub-subcontractors and suppliers are a fixed fee of \$100 per sub-subcontractor or supplier contract.
- <u>Turner Accelerated Payment Program</u> The attached KENTUCKY Rider Accelerated Payment Program amends and supplements your Agreement with Turner and provides you the opportunity to enroll in the Program through Textura CPM and receive accelerated payments from Turner on your invoices. Formal enrollment into the Program can then be accomplished via the Textura CPM system. Additional information and Program benefits are included in the attached Turner Accelerated Payment Program summary. You may be contacted by a representative from Turner or Textura who can provide additional information on the Program and answer questions you may have or you may call Textura at 1-866-TEXTURA (839-8872) with any questions.

Attachment "A" ADDITIONAL PROVISIONS

- OSHA 30 Hour Certification: All subcontractors must have completed an OSHA 30 hour class. One person must be certified for all contracts under \$5M, and two people must be certified for contracts over \$5M. The 30 hour certified person(s) must be on-site 100% of the time. This OSHA 30 hour certification must be updated through Turner's 1.5 hour Safety Update Training every two years through Turner University.
- Stormwater Compliance: If this project is required to obtain an NPDES permit per the EPA, all subcontractors working on the site will be required to attend the Turner Stormwater Subcontractor Orientation and Pre-Plan meeting prior to beginning work, and weekly coordination meetings. Furthermore, Subcontractors involved in earth moving/disturbing activities (excavation, foundation or utility trenching/excavation, grading, landscaping, paving, on site batch plant) or those responsible for installing or maintaining BMP's will be required to take the online Turner Stormwater Subcontractor Short Course Intro into Erosion and Sediment Control prior to attending the preconstruction meeting. The person or persons taking this online course must have a regular presence on the project. All subcontractors must comply with the requirements of the Stormwater Permit.
- Asbestos/ Lead Awareness: N/A
- Waste Tracking Requirements: Subcontractor who includes removal of waste from the project site ("dumpsters") as part of their scope of work, will submit all waste data using TurnerTracker account (monthly cost paid by subcontractor or their waste hauler). Data must be entered into the Online Waste Tracking system by the fifth (5th) day of the month following the invoice period. Subcontractor shall make every effort to maximize percentage of material recycled.

All Subcontractors shall comply with the project Construction Waste Plan. This may include sorting your construction waste and placing it in appropriate dumpsters (either co-mingled or site-sorted) per the project CWP. All subcontractors are required to recycle to the maximum extent possible per the terms of the Subcontract Agreement

- MBE/WBE participation: Refer to MBE/WBE Participation Goals document for details regarding the project inclusion program and/or goals for the University of Kentucky.
- No-Idling Standard: Trade partner agrees to comply with Turner's No-Idling Standard. All trade partner vehicles within the project site fence (including, but not limited to, transportation and construction equipment, delivery trucks and personal or company trucks) shall not idle. The only allowable exceptions to the standard are as follows:
 - 1. Ambient air temperature exceeds 85°F or falls below 32°F (or as defined by local or regional temperature limits, whichever is stricter)
 - 2. Engine idling is required for the function of auxiliary equipment (i.e. cranes, concrete pumps, etc.)

Additional Subcontract Agreement Article Pertaining to Harassment

This agreement includes and acknowledges the addition of the following Article as if inserted immediately following the Ethics and Compliance Article of this agreement as follows:

New Article XV: Harassment

It is the goal of Contractor to promote a work environment at the Project that is free from harassment of any kind. Contractor has ZERO TOLERANCE for harassment, including harassment on the basis of race, sex, gender, gender identity, gender expression, transgender status, sexual orientation, pregnancy, childbirth and other pregnancy-related conditions, color, national origin, ancestry, age, religious creed, citizenship, marital status (including registered domestic partners), parental status, physical disability, mental disability, medical condition, genetic information, military or veteran status (including protected veteran status), or any other characteristic or status protected by law. Subcontractor agrees to be bound by the Policy Statement on Harassment referenced in Article XXII below, and any violation or suspected violation of such policy by Subcontractor or any of its officers, agents, servants, employees, subcontractors or suppliers shall be considered as Subcontractor's failure to perform its obligations under the terms and conditions of this Agreement. Such failure shall be considered adequate and justifiable grounds for Contractor to effectuate its rights and remedies under the provisions of Article XI of this Agreement. Subcontractor shall actively promote a harassment-free work environment among its officers, agents, servants, employees, subcontractors, and suppliers.

G. WORK EXCLUDED

Construct AG Research Building UK PROJECT 2617.0

Attachment "A" ADDITIONAL PROVISIONS

Refer to Attachment "B" - Scope of Work

H. ALTERNATE PRICES

Refer to Attachment "B" - Scope of Work for Description of Alternate

I. ALLOWANCES

Refer to Attachment "B" - Scope of Work for Description of Allowances. Contract Prices INCLUDES Allowances

J. UNIT PRICES

Refer to Attachment "B" - Scope of Work for Description of Unit Prices

K. CONTRACT PRICE SUMMARY

Base Bid Amount	\$
<u>Adjustments</u>	
CONTRACT TOTAL	\$

By execution of this Agreement, Subcontractor agrees that Subcontractor's proposal, including all quantities, terms, and conditions, is Null and Void. This Subcontract Agreement details the terms of the Agreement, and shall be the primary reference point for clarifications of issues during course of project.

END OF ADDITIONAL PROVISIONS

Attachments:

Attachment B - Scope of Work for this Subcontract Agreement

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FOR CONSTRUCTION BY TRADE CONTRACTORS via CONSTRUCTION MANAGER AT RISK CONTRACT

University of Kentucky Capital Construction Division

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GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION BY A CONSTRUCTION MANAGER AT RISK

University of Kentucky Capital Construction Division

These General Conditions are binding upon the Construction Manager and all Sub-contractors as each are subject to the provisions contained herein.

ARTICLE 1 - DEFINITIONS

- 1.1 Wherever used in these General Conditions or in other Contract Documents, the following terms have the meaning indicated which are applicable to both the singular and plural thereof:
- 1.1.1 ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS (ASI) The term "ASI" means a written order issued by the Consultant that clarifies or interprets the Contract Documents, that orders minor changes in the Work, that does not require an adjustment in either cost or time, and that does not require a Change Order.
- 1.1.2 BUSINESS DAY The term "Business Day" means a Calendar Day that is not a Saturday, Sunday or legal holiday in Fayette County, Kentucky.
- 1.1.3 CALENDAR DAY The term "Calendar Day" means a day of twenty-four hours measured from midnight to the next midnight
- 1.1.4 CHANGE ORDER The term "Change Order" means a written order to the Construction Manager, signed by the Owner and issued after the execution of the Contract, directing a change in the Work or an adjustment in the Contract Amount or the Contract Time. A Change Order may be an agreed change by the Construction Manager and the Owner or it may be a unilateral change by the Owner.
- 1.1.5 CONSULTANT The term "Consultant" means the person and/or entity, whether singular or plural, either Architect, Engineer or other Consultant, who is or are identified as such in the Contract Documents.
- 1.1.6 CONSTRUCTION MANAGER or CONSTRUCTION MANAGER AT RISK (CM) The term "Construction Manager" or "Construction Manager at Risk" (CM) means the person or entity who will or has entered into a contract with the Owner that assumes the risk for construction of the Project as the construction manager, and who will provide consultation and collaboration regarding the construction during and after design of the Project. The CM shall execute and hold all construction Trade Contracts and Purchase Orders for the Project.
- 1.1.7 CONTRACT The term "Contract" means the Contract between Owner and Construction Manager and consists of all Contract Documents as defined in Article 1.1.10 of these General Conditions.
- 1.1.8 CONTRACT AMOUNT The term "Contract Amount" means the sum stated in the Agreement which represents the total amount payable by the Owner to the Construction Manager for the performance of the Work under the Contract Documents, plus or minus adjustments as provided for in the Contract Documents or by approved Change Orders.
- 1.1.9 CONTRACT DOCUMENTS The "Contract Documents" include the Agreement of Contract between the Owner and the Construction Manager (the "Agreement"); the Request for Proposal; the General Conditions; the Special Conditions; the Construction Manager's Form of Proposal; the Construction Manager's Bonds; the Specifications, Drawings and Addenda for the construction of the Project which are to be used for bidding of the bid pack/Trade Contracts; and any Change Orders issued after execution of this Contract. The Contract Documents shall not be construed to create a contractual relationship of any kind between the Owner and any Sub-contractor, or any person or entity other than the Construction Manager. Documents not included or expressly contemplated in this Article do not, and shall not, form any part of the Contract for Construction. Without limiting the generality of the foregoing, shop drawings and other submittals from the Construction Manager or its Sub-contractors and suppliers do not constitute a part of the Contract Documents. Except as

otherwise provided, where these Contract Documents obligate the Construction Manager to certain responsibilities or require the Construction Manager to perform certain actions, the Construction Manager may require these same responsibilities and/or actions of one or more Sub-contractors. However, assignment of such responsibilities or actions to one or more Sub-contractors shall not be construed to relieve the Construction Manager of its obligation to the University under this contract.—

- 1.1.10 CONTRACT TIME The term "Contract Time", unless otherwise provided, means the specified number of consecutive Calendar Days following the stipulated commencement of the Work as stated in the Work Order, plus or minus adjustments as provided for by approved Change Orders, within which the Trade Contractor shall complete the Work required by the Contract and shall achieve certification of substantial and final completion.
- 1.1.11 KRS REFERENCES Reference to "KRS" means the "Kentucky Revised Statutes" adopted by the Commonwealth of Kentucky, including all laws that may have been revised, amended, supplemented or new laws enacted.
- 1.1.12 OWNER The term "Owner" means the University of Kentucky, a statutory body corporate existing pursuant to Sections 164.100 et seq. of the Kentucky Revised Statutes.
- 1.1.13 PROJECT The term "Project" means the total construction of the Work performed under the Contract Documents, which may be the whole or a part, and which may include construction by the Owner or by separate contracts.
- 1.1.14 PROJECT MANAGER The term "Project Manager", when used alone, means the Owner's representative responsible for administration and management of the Project. The Owner's Project Manager during construction shall be the designated University of Kentucky Capital Projects Management Project Manager that is in charge of the Project. The term "CM Project Manager" means the individual employed by the Construction Manager who is assigned to the Project to provide overall management during both the design and construction phases of the Project, and who has total responsibility for the successful completion of the Project
- 1.1.15 PROVIDE The term "Provide," as used throughout the specifications, shall mean furnish, install and pay for.
- 1.1.16 SHOP DRAWINGS The term "Shop Drawings" means drawings, diagrams, schedules, and other data specially prepared for the Work by the Trade Contractor or any Sub-contractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.
- 1.1.17 SUBSTANTIAL COMPLETION The term "Substantial Completion" is the point at which, as certified in writing by the Owner, a project is at the level of completion, in strict compliance with the contract, where (a) necessary approval by public regulatory authorities (and by other authorities having jurisdiction or as identified in Article 11.2, as necessary) has been given; (b) the Owner has received all required warranties and documentation, and (c) the Owner may enjoy beneficial useor occupancy and may use, operate, and maintain the project in all respects, for its intended purpose. Partial use or occupancy shall not necessarily result in the project being deemed substantially complete and shall not be evidence of Substantial Completion. In order for the Owner to enjoy beneficial use or occupancy and use, operate, and maintain the project in all respects, for its intended purpose, the stage or progress of the Work or a designated portion thereof shall be sufficiently complete, accessible, operable and usable, and all parts, systems and site Work shall be 100% complete, cleaned and available for the Owner's full use without interruption in accordance with the Contract Documents, including but not limited to the provisions of Article 28 of these General Conditions. The Work will not be considered acceptable for Substantial Completion review until all Project systems included in the Work are operational as designed and scheduled, all designated or required governmental inspections and certifications have been made and approvals provided to the Owner, designated instruction of the Owner's personnel in the operation of systems has been completed, and all final finishes within the Contract Documents are in place. In general, the only remaining Work shall be minor in nature so that the Owner and/or the Owner's tenants could occupy the Project on that date and the completion of the Work by the Trade Contractor would not materially Rev 11/2020

interfere or hamper the Owner's or the Owner's tenants' normal business operations. As a further condition of Substantial Completion acceptance, the Construction Manager shall certify in writing that all remaining Work, the same being solely of a "punch list" nature, will be completed within thirty (30) consecutive Calendar Days following the date of Substantial Completion.

- 1.1.17.1The parties agree that "substantial completion" as defined in Article No. 2 of the Agreement and Article 1 of the General Conditions, as extended by approved Change Order(s) pursuant to Article 18.1 of the General Conditions, shall be the "date of completion specified in the contract" for purposes of KRS. 45A.250(2).
- 1.1.18 SUB-CONTRACTOR (Trade Contractor) The term "Sub-contractor" ("Trade Contractor") means the person, company, corporation, joint venture or other legal entity with whom the Construction Manager has executed a Contract for a portion of the Work.
- 1.1.19 WORK The term "Work" means the scope of construction and services required by the Contract Documents and all approved Change Orders, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Trade Contractor to perform and complete the Construction Manager's obligations under the Contract in an expeditious, orderly and workmanlike manner. The Work may constitute the whole or a part of the Project.
- 1.1.20 WORK ORDER The term "Work Order" means a written notice by the Owner to the Construction Manager authorizing the Construction Manager to commence Work under the Contract and establishing the beginning date from which the time for Substantial and Final Completion shall be established.
- 1.1.21 UNIT PRICE The term "Unit Price" means the amount per unit of measurement for materials or services as described in the bid documents.

ARTICLE 2 - CONSULTANT

- 2.1 The Consultant will be the Owner's representative during construction and until the Work is complete. The Consultant will advise and consult with the Owner. The Owner's instructions to the Construction Manager may be forwarded through the Consultant.
- 2.2 The Consultant will regularly, but no less frequently that monthly, visit the site to become familiar with the progress of the Work, the quality of the Work being provided and to determine if the Work is proceeding in accordance with the Contract Documents. On the basis of these on-site inspections, the Consultant will inform the Owner of the progress of the Work, will advise the Owner of any defects and deficiencies observed in the Work and, when appropriate, will certify to the Owner that the Work in place equals or exceeds the amount requested by the Construction Manager on all applications for progress payments.
- 2.2.1 If applicable for the Work, the Consultant will verify to the Owner that the Trade Contractor(s) is performing erosion prevention and sediment control inspections as required by the Kentucky Division of Water Construction General Permit (KYR10) at least once every 7 days and shall include the findings in the site visit reports.
- 2.3 The Consultant will be the interpreter of the requirements of the drawings and specifications and any changes made to the drawings and specifications.
- 2.4 Claims, disputes, and other matters in question that arise relating to the execution or the progress of the Work shall be referred in writing to the Construction Manager by the Trade Contractor. The Consultant will provide a response in accordance with and subject to the provisions of Article 38 of these General Conditions.
- 2.5 The Consultant will have the authority to reject Work which does not conform to the Contract Documents or to the required level of quality and performance.

- 2.6 The Consultant will review and approve, or take other appropriate action upon receipt of the Trade Contractor(s) submittals such as Shop Drawings, product data, and samples. The review of submittals will be for general conformance with the design concept of the work, and for compliance with the information provided by the Contract Documents. Such review will not relieve the Trade Contractor(s) of any responsibility for errors or omissions in submittals, and will in no way constitute a waiver of or change to the requirements of the Contract Documents.
- 2.6.1 The Consultant's review and response will be completed with reasonable promptness with a goal of ten (10) business days or less. The Consultant's review of a specific item shall not indicate approval of an assembly of which the item is a component.
- 2.7 The Consultant will prepare Change Orders for the Owner to direct changes in the Work. Minor changes in the Work, not involving modifications to the contract cost or completion times and that are consistent with the purpose of Work, may be directed by the Consultant through Architect's Supplemental Instructions (ASI).
- 2.8 When requested by the Construction Manager, the Consultant will conduct inspections to determine if the Project is at the level of completion required by and is in strict compliance with the Contract such that the Owner may enjoy beneficial use or occupancy and may use, operate, and maintain the project in all respects for its intended purpose, as further defined in the Contract. If the level of completion warrants, the Consultant will confirm that all necessary approvals by public regulatory authorities or other authorities having jurisdiction have been given, will confirm that the Owner has received all required warranties and documentation, will recommend dates for certification of Substantial Completion and Final Completion by the Owner, and will complete and submit the Notice of Termination of coverage under the KPDES General Permit for Storm Water Discharges Associated with Construction Activity.
- 2.9 The Construction Manager will accept direction for the Work on the Project only from the Owner's Project Manager or from the Consultant. Requests for information from the Trade Contractor(s) shall be directed to the Consultant.

ARTICLE 3 - CORRELATION AND INTENT OF CONTRACT DOCUMENTS

- Execution of the Contract by the Trade Contractor(s) is a representation that the Trade Contractor(s) has or shall thoroughly and carefully examine the site of the of Work; shall timely investigate all conditions which can affect the Work or its cost, including but not limited to availability of labor, materials, supplies, water, electrical power, roads, access to the site, uncertainties of weather, water tables, the character of equipment and facilities needed to perform the Work, and local conditions under which the Work is to be performed; and further, that the Construction Manager shall insure that the documents issued for bidding by Sub-contractors reflect the results of this investigation and are adequate to complete the Work. It is the responsibility of the Trade Contractor(s) to be familiar with and comply with all Federal, State, and local laws, ordinances, and regulations which might affect those engaged in the Work, and to be familiar with the materials, equipment, or procedures to be used in the Work, or which in any other way could affect the completion of the Work. The Trade Contractor(s) shall carefully study and compare the Contract Documents with each other and with other information provided to the Trade Contractor(s) by the Construction Manager, Consultant, or the Owner pursuant to the Contract Documents and shall notify the Owner and the Consultant via the Construction Manager in writing of any errors, inconsistencies or omissions in the Contract Documents recognized by the Trade Contractor(s). Any failure to properly familiarize itself with the proposed Work shall not relieve the Trade Contractor(s) from the responsibility for completing the Work in accordance with the Contract Documents.
- 3.2 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Trade Contractor(s). All labor or materials which are reasonably inferable from the Contract Documents and which are necessary to produce the desired result, even though not specifically mentioned in the Contract Documents, shall be included in the Work at no additional cost to the Owner.
- 3.3 In the event a question arises regarding the meaning or intent of the Contract Documents, the Trade Contractor(s) shall report it by preparing an RFI in eCommunication[®] to the Consultant. The Consultant shall Rev 11/2020

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furnish, with reasonable promptness and with a goal of three (3) business days and by whatever means as may be appropriate, additional instructions necessary for the proper execution of the Work. All such drawings and instructions shall be consistent with the Contract Documents, true developments thereof, and reasonably inferable therefrom. The Work shall be executed in conformity therewith and the Construction Manager shall do no Work without proper drawings and instructions. Items indicated on drawings as "N.I.C." or "Not In Contract" are shown for explanation purposes only and are not to be included in this Contract.

- 3.4 The Contract Documents are complementary, and what is required by one shall be binding as if required by all. In case of conflicts between the various documents, the order of precedence will be as follows: (1) Addenda, (2) Special Conditions, (3) General Conditions, (4) Technical provisions of the Specifications and (5) Drawings.
- 3.5 Any notice to the Construction Manager from the Owner regarding this Contract shall be in writing and delivery and service of such notice shall be considered complete when sent by certified mail to the Construction Manager at Construction Manager's last known address. Such notice may also, at the Owner's election, be hand-delivered to the Construction Manager or the Construction Manager's authorized representative.

ARTICLE 4 - PRE-CONSTRUCTION CONFERENCE

- 4.1 Following the execution of the Contract, a pre-construction conference will be held. Representatives of the Capital Project Management Division, Consultant, Construction Manager, and all major Sub-contractors shall be present to discuss the time for construction, methods and plan of operation, authority of the Consultant, procedures for handling shop drawings, progress estimates and requests for payments, and other relevant issues. The time and location of this meeting will be the responsibility of the Construction Manager in consultation with the Consultant, Owner and other interested parties.
- 4.2 Environmental aspects of the project, including erosion prevention and sediment control (EPSC) and storm water management shall be discussed during this conference. The Group shall discuss the Storm Water Pollution Prevention Plan (SWPPP) to ensure that all parties understand the requirements. During this meeting the responsibility for reading the rain gage on a daily basis will be established. The Construction Manager will identify the initial measures to be installed prior to land disturbing activities beginning. Any modifications to the SWPPP due to constructability issues should be discussed at this conference.

ARTICLE 5 - SHOP DRAWINGS

- 5.1 The Trade Contractor(s) shall submit a shop drawing and product sample submittal schedule to the Construction Manager establishing dates for the submission of Shop Drawings and product samples prior to the submittal of the Trade Contractor(s)'s first application for payment for construction phase services. The schedule shall have been coordinated with all Sub-contractors and material suppliers as well as the Construction Manager's construction schedule and shall allow for adequate and reasonable time for review of the samples and submittals by the Consultant. The Trade Contractor(s) shall be responsible for compliance with the submittal schedule and shall insure that the submittal schedule is maintained in order to accurately reflect the status of processing all required submittals.
- 5.2 The Trade Contractor(s) shall review product samples and Shop Drawings for compliance with the requirements of the Contract Documents, and shall submit them to the Consultant via the Construction Manager in accordance with submittal procedure and schedule established. The Trade Contractor(s) review and submittal to the Consultant via the Construction Manager of any Shop Drawing or sample shall constitute a representation to the Owner and Consultant that a) the Trade Contractor(s) has determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data, or assumes full responsibility for doing so, and that b) each Shop Drawing or sample has been reviewed or coordinated with the requirements of the Work and the Contract Documents. Shop Drawings and submittal requirements shall not be deemed satisfied until approvable documents are received by the Consultant. Incorrect or incomplete submittals will be returned to the Trade Contractor(s) without action. No claim for additional time or extension of the

contract will be considered if such claim is the result of failure by the Trade Contractor(s) to provide correct, accurate, complete and approvable submittals.

- 5.3 The Consultant will review submittals with reasonable promptness, and take appropriate action or return submittals to the Trade Contractor(s) for corrections as may be required. The Trade Contractor(s) shall make any corrections required by the Consultant for compliance with the Contract and shall return the required number of corrected copies of Shop Drawings and resubmit new samples until approved. The Trade Contractor(s) shall direct specific attention, in writing, or on resubmitted Shop Drawings, to revisions other than the corrections called for by the Consultant on previous submissions.
- 5.4 Where a Shop Drawing or sample submission is required by the specifications, no related Work shall be commenced until the submission has been accepted in writing by the Consultant. The review and acceptance shall be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. The acceptance of a separate item will not indicate acceptance of the assembly in which the item functions. A copy of each accepted Shop Drawing and product sample shall be kept in good order by the Trade Contractor(s) at the site and shall be made available to the Consultant on request.
- 5.5 The Consultant's acceptance of Shop Drawings or samples shall not relieve the Trade Contractor(s) from the responsibility for any deviations from the requirements of the Contract Documents unless the Trade Contractor(s) has in writing called the Consultant's attention to such deviation at the time of submission and the Consultant has given written approval to the specific deviation. Any acceptance by the Consultant does not relieve the Trade Contractor(s) from responsibility for errors or omissions in the Shop Drawings.

ARTICLE 6 - LAYING OUT WORK

- 6.1 The Trade Contractor(s) will secure all data at the site of the building such as grades of lot, convenience of receiving and sorting material, location of public services, and other information which will have a bearing proposals or on the execution of the Work and shall address these issues in the preparation of scopes of work for the Subcontract bid packages. No allowance shall be made for failure of the Trade Contractor(s) to obtain such site information prior to submitting their proposal or to include such information in the Subcontract bid packages, and no adjustment to the Trade Contractor(s) Contract amount or stipulated time for completion shall be allowed when due to failure by the Trade Contractor(s) to do so.
- 6.2 The Trade Contractor(s) shall be responsible for all lines, levels and measurements of all Work executed under the Contract. The Trade Contractor(s) shall verify all dimensions before laying out the Work and will be held responsible for any error resulting from failure to do so. Working from lines and levels established by the property survey or by other Contract Documents, and as shown in relation to the Work, the Trade Contractor(s) will establish and maintain bench marks and other dependable markers to set lines and levels for Work at each area of construction and elsewhere on the site as needed to properly locate each element of the entire Project. The Trade Contractor(s) shall calculate and measure from the bench marks and dependable markers required dimensions as shown (within recognized tolerances if not otherwise indicated), and shall not scale drawings to determine dimensions. The Trade Contractor(s) shall advise Sub-contractors and trades persons performing Work of marked lines and levels provided for their use in layout work. The Trade Contractor(s) shall verify layout information shown on drawings as required for the Work.
- 6.3 The Trade Contractor(s) shall be responsible for coordination of the installation of all elements of the Work, including preparation of coordination drawings if required by the Contract Documents or deemed necessary by the Trade Contractor(s) for performance of the Work.
- 6.4 If any encroachments are made by the Trade Contractor(s) or any Sub-contractor on any adjacent property, the Trade Contractor(s) shall, at the Trade Contractor(s) expense, and within thirty (30) Calendar Days after written notice from the Owner or the Consultant, correct any encroachments and obtain approval from the owner of such adjacent property for any encroachments that cannot be feasibly corrected. The Trade Contractor(s) shall not be entitled to any adjustment to the Contract Amount or the Contract Time as a result of any such encroachment or the correction thereof.

ARTICLE 7 - PLANS, DRAWINGS, SPECIFICATIONS AND RECORD DRAWINGS

- 7.1 Unless otherwise provided in the Contract Documents, the Owner will furnish the Construction Manager free of charge one electronic or reproducible copy of the Drawings and Specifications for execution of the Work. The Trade Contractor(s) shall pay for the cost of duplication of all sets required over and above this amount.
- 7.2 The cost of additional plans, specifications and official contract documents for use by Sub- contractors for bidding and for construction shall be borne by the Trade Contractor(s) or by the Sub-contractors. Arrangements for orders and payment for plans, specifications and other contract documents must be made with Lynn Imaging, Lexington, Kentucky (http://www.ukplanroom.com) or by phone at 1.800.888.0693 or 859.255.1021) before a set of documents will be issued.
- 7.3 The Trade Contractor(s) shall keep one copy of all Contract Documents, including Drawings, Specifications and Shop Drawings on the site and in good order. A qualified representative of the Trade Contractor(s) shall record on these documents, from day to day as Work progresses, all changes and deviations from the Contract Documents. Prior to Substantial Completion, each Trade Contractor (via the Construction Manager) shall complete and turn over to the Consultant the As-Built drawings, with a digital copy (in PDF format) submitted to the Owner simultaneously. The As-Built drawings shall consist of a set of drawings which indicate all field changes that were made to adapt to field conditions, changes resulting from Change Orders and all concealed and buried installations of piping, conduit and utility services. All buried and concealed items, both inside and outside the facility, shall be accurately located on the As-Built drawings as to depth and in relationship to not less than two permanent features such as interior or exterior wall faces. The As-Built drawings shall be clean and all changes, corrections and dimensions shall be given in a neat and legible manner in a contrasting color. For any changes or corrections in the Work which are made subsequent to the Substantial Completion Inspection, revisions shall be made to the As-Built drawings and submitted to the Consultant prior to final payment. Approval of the final payment request shall be contingent upon compliance with these provisions.
- 7.4 All drawings, specifications and copies thereof, furnished by the Consultant to the Owner, are the property of the University of Kentucky. They shall not be used by the Consultant, Construction Manager, or any Sub-contractor or Supplier on any other Project.

ARTICLE 8 - TEMPORARY UTILITIES

- 8.1 The Trade Contractor(s) shall provide and pay for, unless modified in the Special Conditions, all temporary conveniences including, but not limited to, wiring, lighting, power and electrical outlets, heat, water, and sanitary facilities required for construction. In the event the Owner elects to make available, at no cost to the Trade Contractor(s), the electric power required for construction activities, the electric power supplied shall not be utilized as a means to provide temporary heat or for welding.
- 8.2 The Trade Contractor(s) is responsible for paying all utility costs, whether the costs are from an outside utility company or from the University, for utility services used in the course of completing the Work. The Trade Contractor(s) shall provide temporary heating, ventilation, telephones, water, electricity, portable gas, lighting for the Work, safety lighting, security lighting, and trash removal/dumpster service for both Trade Contractor(s) and Sub-contractor use during the Project. Work and safety lighting shall be provided continuously during working hours. Security lighting shall be provided at all hours of darkness.

ARTICLE 9 - MATERIALS, EQUIPMENT, APPLIANCES, AND EMPLOYEES

9.1 Unless otherwise provided in the Contract Documents, the Trade Contractor(s) shall provide and pay for all materials, labor and personnel, tools, equipment, construction equipment and machinery, utilities, supplies, appliances, transportation, taxes, temporary facilities, licenses, permits and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and the proper execution and completion of the Work safely, without damage to persons and property, and in compliance with all applicable law. The

Trade Contractor(s) shall furnish, erect, maintain, and remove at the completion of the Contract, all temporary installations as may be required during the construction period.

- 9.2 Immediately following the execution of each of the Trade Contracts, the Trade Contractor(s) shall determine the source of supply for all materials required under that Trade Contract and the length of time required for their delivery, and shall assure that orders are placed for such materials in sufficient time to assure delivery to the site so that such materials are available to be incorporated into the Work when needed to comply with the schedule of Work.
- 9.3 The Trade Contractor(s) shall immediately notify the Consultant (via the Construction Manager) in writing of any known problems with the procurement, fabrication or ordering of any materials. Unless changes are approved in writing by the Consultant, the Trade Contractor(s) will not be excused for delays in securing materials specified.
- 9.4 The Trade Contractor(s) or Sub-contractors shall not place purchase orders or issue contracts for materials, supplies, equipment and services necessary to complete this Project using the name of the University of Kentucky. All orders placed by the Trade Contractor(s) that are related to this Project must use the name of the Trade Contractor(s) or Sub-contractor placing the order. The use of the University of Kentucky's name for ordering purposes is strictly prohibited. Payment for all goods and services required for the completion of the Work is the sole responsibility of the Trade Contractor(s). Any invoices received at the University that are related to this Project will be immediately forwarded to the Trade Contractor(s). Copies of these invoices will be made and placed in the Trade Contractor(s)'s file and proof must be provided that these invoices have been paid in full prior to the processing of the next scheduled application for progress payment.
- 9.5 The route for delivery of all materials to the Project shall be coordinated with the Owner's Project Manager.
- 9.6 The Trade Contractor(s) shall be responsible for the proper and adequate storage of materials and equipment. Unless otherwise provided in the Contract Documents, all materials shall be of good quality and new. Workmanship and materials supplied and incorporated into this Work shall be of first quality. The Trade Contractor(s), if required, shall furnish satisfactory evidence as to the kind and quality of materials.
- 9.7 The Trade Contractor(s) shall at all times enforce strict discipline and good order among all employees and Sub-contractors. The conduct of all individuals performing Work or operations related to the Work is the responsibility of the Trade Contractor(s). The consumption of alcohol or drugs on the job by any workers is strictly prohibited. Any individual apprehended under the influence of alcohol or drugs on the premises at any time shall be subject to automatic removal from the Project by the Construction Manager, the Consultant or the Owner. Improper conduct of any kind will not be permitted and may result in the offending individual, Subcontractor or Trade Contractor(s) being barred from the Owner's premises. The Trade Contractor(s) shall not permit the employment on the Project of any person unfit or not skilled in the Work assigned.

ARTICLE 10 - ROYALTIES AND PATENTS

The Trade Contractor(s) shall pay all royalties and license fees. If a particular process, product or device is specified in the Contract Documents and it is known to be subject to patent rights or copyrights, the existence of such rights shall be disclosed in the Contract Documents and the Trade Contractor(s) is responsible for payment of all associated royalties. The Trade Contractor(s) hereby agrees to indemnify, defend and hold the Owner, and any subsidiary, parent, or affiliates of the Owner, or other persons or entities designated by the Owner, and their respective directors, officers, agents, employees and designees (collectively, the "Indemnities") harmless from all losses, claims, liabilities, injuries, damages and expenses, including attorneys' fees and legal expenses, that the Indemnities may incur as a result of the Trade Contractor(s)'s failure to strictly comply with its obligations under this Paragraph 10.1.

ARTICLE 11 - SURVEYS, PERMITS, REGULATIONS, AND STANDARD CODES

- 11.1 The Owner will furnish only such surveys that are specifically required by the Contract Documents. Approvals, assessments, and easements for permanent structures or permanent changes in existing structures shall be secured and paid for by the Owner, unless otherwise specified. All required utility tap-on fees shall be secured and paid for by the Trade Contractor(s), or included in a Trade Contract, including the Lexington-Fayette Urban County Government (LFUCG) sewertap-on fee. All construction permits, where required by local ordinances, except excavation permit, shall be obtained by the Trade Contractor(s), but no fee shall be charged to or paid by the Trade Contractor(s) as the Owner is exempt from such charges. A Contractor's license fee for doing business in the locale, if applicable, shall be paid for by the Trade Contractor(s).
- 11.2 All branches of Work shown on the plans and specifications shall be executed in strict compliance with all state and federal regulations and codes, with all national codes, and with the requirements of both ADA and JCAHO when applicable.
- 11.3 The Contractor, on projects disturbing 1 acre or more, or projects less than 1 acre that are part of a large common development plan, including grading, clearing, excavation, material laydown or other earth moving activities, shall assure full compliance with the requirements of the KYR10 and shall:
- 11.3.1 File a Notice of Intent (KPDES FORM eNOI-SWCA) with the Kentucky Division of Water and copy the UKCPM Project Manager and Water Quality Manager prior to the start of any excavation, grading or site development work.
- 11.3.2 The permittee (contractor) shall develop a Stormwater Pollution Prevention Plan (SWPPP) based on the Erosion Prevention and Sediment Control Plan (EPSC) as a minimum design standard. Ensure all requirements of KYR10 are fully addressed in the SWPPP. Once the SWPPP is written, forward a copy to the Capital Projects Project Manager and to the Water Quality Manager for approval. Work cannot begin until SWPPP is approved and permit coverage obtained.
- 11.3.3 Install BMP's such as, basins, traps, drainage, and sediment barriers before beginning land disturbing activities, including the construction entrance/exit. Once prevention measures have been installed, grading can commence. In the event a new construction entrance is added to the site, this new entrance must be built according to the EPSC design details with a wheel wash, a water supply and a sediment catch basin for washed wheel sediment.

- 11.3.4 Maintain all measures in working condition. Perform maintenance activities identified during inspections prior to the next rain event. Remove sediment from BMPs when 1/3 the storage volume has been filled.
- 11.3.5 Stabilize disturbed areas within 14 days of inactivity or reaching final grade on any portion of the site according to permit requirements.
- 11.3.6 Inspect the site every 7 calendar days and after each rainfall of ½"or more. Document site conditions, rainfall, maintenance activities needed and performed, stabilization needed and performed, and where new measures are needed. Discuss deficiencies with UK Project Manager and Water Quality Manager and note on the SWPPP Inspection Sheets.

Per the KPDES Permit, Section 2.1.7. "Inspections – Permittee Conducted". "Inspections shall be performed by personnel knowledgeable and skilled in assessing conditions at the construction site that could impact storm water quality and assessing the effectiveness of erosion prevention measures, sediment control measures, and other site management practices chosen to control the quality of the storm water discharges. Inspectors shall have training in storm water construction management such as Kentucky Erosion Prevention & Sediment Control (KEPSC), Certified Professional in Stormwater Quality (CPSWQ), Certified Erosion, Sediment and Stormwater Inspector (CESSWI), or other similar training."

Inspections shall include a tour of the total site and verification that all BMPs are performing as constructed. Inspector shall certify that all observations are correct as stated and sign and date the inspection form.

- 11.3.7 Keep Permit, SWPPP, weekly/rain event inspections sheets in binder in construction trailer. Any BMP change/alteration from SWPPP and EPSC plan must be noted on the EPSC and SWPPP.
- 11.3.8 No soil and sediment shall leave the construction site. BMPs shall be repaired immediately if failure has occurred. No Mud shall be permitted on any street. All entrances/exits shall have a means by which to wash wheels. If an entrance/exit does not have a wheel wash, that exit shall not be used in muddy conditions. If for any reason mud is tracked offsite, the area must be cleaned in such a way as to prevent sediment from entering the storm sewer system. The use of tractor brooms solely will not be permitted.
- 11.3.9 When it is necessary to dewater an excavation, proper BMPs must be implemented. Dewatering filter bags must be sized and used according to manufacturer's requirements and Standard Operating Procedures for Dewatering Bags.
- 11.3.10 UK (the MS4) routinely inspects sites for compliance with the EPSC/SWPPP. Any deficiencies noted become record for the Kentucky Division of Water and shall be remedied/installed as soon as site conditions are favorable but no more than 7 days from the inspection date.
- 11.3.11 At the conclusion of the project and all bare areas, slopes and ditches are 70% vegetated with the permanent ground cover, the contactor shall notify the UK Project Manager and Water Quality Manager and request a final site inspection prior to filing a "Notice of Termination (NOT) with the state. This inspection verifies that Construction BMPs can be removed, and Post-Construction BMPs are in place and functioning.
- 11.3.12 Failure of the site contractor (permitee of the KPDES Permit) to timely comply with requirements of KPDES, the Construction Manager shall inform the site contractor that a third party contractor shall be retained to remediate all BMP deficiencies immediately, and all third party costs shall be passed to the permitee of the KPDES Permit. Any fines or other costs resulting from failure to comply, levied against the Owner will be assessed against the site contractor's or General Constructor's funds.
- 11.3.13 Refer to 334000S01 STORM DRAINAGE UTILITIES Information for Consultants & Contractors.
- 11.3.14 Reference to standards, codes, specifications, and regulations refer to the latest edition of printing in effect at the date of issue shown in the Contract Documents unless another date is implied by the suffix

number of the standard.

- 11.4 Reference to standards, codes, specifications, and regulations refer to the latest edition of printing in effect at the date of issue shown in the Contract Documents unless another date is implied by the suffix number of the standard
- 11.5 The Construction Manager shall furnish a final occupancy permit from the proper agency or agencies as required.
- 11.6 The Trade Contractor(s) shall, by provision within each applicable subcontract or by inclusion in the lump sum fee proposed to the Owner, insure the payment of all sales, consumer, use and similar taxes for materials, equipment and supplies incorporated into the Work, by unless otherwise specified in the bid documents.

ARTICLE 12 - PROTECTION OF WORK, PROPERTY, AND PUBLIC

- 12.1 The Trade Contractor(s) shall continuously maintain adequate protection of all Work from damage and shall protect the Owner's property from injury or loss arising in connection with this Contract. Except as otherwise covered by Builder's Risk insurance, the Trade Contractor(s) shall pay for any damage, injury, or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or employees of the Owner. The Trade Contractor(s) shall adequately protect adjacent property as provided by law and the Contract Documents.
- 12.2 In an emergency affecting the safety of life, or of the Work, or of adjoining property, the Trade Contractor(s), without special instruction or authorization from the Consultant or the Owner, is obligated to act to prevent such threatened damage, loss or injury.
- 12.3 The Trade Contractor(s) shall maintain fire protection as required by the Kentucky Building Code. Access to the Project site and surrounding buildings for local fire truck access during construction must be maintained. The Trade Contractor(s) shall maintain construction to allow access to new, existing or temporarily relocated standpipes, fire hydrant connections and fire alarm communication panels pursuant to Section 3018.8 of the Kentucky Building Code. If the Trade Contractor(s) utilizes the Owner's fire protection equipment, the Trade Contractor(s) shall replace any such materials lost, consumed or misplaced during the Contract period. The Trade Contractor(s) is responsible for any false alarms caused by dust created in the Work area or dust traveling to areas beyond the Work area due to inadequate dust protection barriers. Should there be a need for any existing or newly installed fire alarm system, or parts of a system that requires service, to be removed from service or disconnected, prior approval must be obtained from the Owner and the Trade Contractor(s) shall immediately provide alternate protection such as a fire watch until such systems are returned to full normal operations. When work or service is completed on a disabled fire alarm system, the Owner shall be immediately notified so the system can be placed in service.
- 12.4 The Trade Contractor(s) and Sub-contractors are responsible for the security of their own materials, tools and equipment at the Project site.
- 12.5 The Construction Manager shall provide to the Owner's Project Manager a key to Construction Manager's field office or job trailer.

ARTICLE 13 - BLASTING

Blasting is not allowed unless permission is granted in the Special Conditions. Should blasting be allowed by the Special Conditions, it shall be completed in accordance with all laws, regulations, ordinances and instructions contained in the Special Conditions.

ARTICLE 14 - CONSTRUCTION AND SAFETY DEVICES

- 14.1 The Trade Contractor(s) shall provide safety controls for protection of the life and health of employees and visitors. The Trade Contractor(s) will utilize precautionary methods for the prevention of damage to property, materials, supplies, and equipment, and for avoidance of work interruptions in the performance of this Contract. In order to provide such safety control, the Trade Contractor(s) shall comply with all pertinent provisions of the Kentucky Fire Prevention Code, Kentucky Building Code, Kentucky Labor Cabinet's Division of Occupational Safety and Health Program Construction Standards and Federal Occupational Safety and Health (Construction) Standards that are in effect at the time the Contract is entered into and during the period in which the Contract is to be performed.
- 14.2 The Trade Contractor(s) shall provide a written safety program which includes all pertinent written specialty standards such as, but not limited to, Control of Hazardous Energy Sources (Lockout/Tagout), Hazard Communications Program, First Aid, Blood Borne Pathogen Program, Respirator Use Program and Hearing Conservation Program. The Construction Manager shall require all Sub-contractors to have an effective written safety program or be required to follow the Construction Manager's written safety program.
- 14.3 The Construction Manager shall maintain an accurate record of and shall report to Kentucky Labor Cabinet's Division of Occupational Safety and Health in the manner and on the forms prescribed by that Division, exposure data and all accidents resulting in death, traumatic injury, or occupational disease. The Construction Manager shall maintain an accurate record of and shall report to the Owner's Project Manager, any damage to property, materials, supplies, or equipment incident to Work under this Contract.
- 14.4 The Kentucky Labor Cabinet's Division of Occupational Safety and Health may notify the Trade Contractor(s) of any noncompliance with the foregoing provisions. The Trade Contractor(s) shall, upon receipt of such notice, immediately correct the cited conditions. Notice delivered to the Trade Contractor(s) or the Trade Contractor(s)'s representative at the site of the Work shall be deemed sufficient for this purpose. If the Trade Contractor(s) fails or refuses to comply promptly, the Owner may issue an order stopping all or part of the Work until satisfactory corrective action has been taken. Failure or refusal to comply with the order will be grounds for reducing or stopping all payments due under the Contract to the Trade Contractor(s). No part of the construction time lost due to any such stop order shall be cause for, or the subject of a claim for, extension of time or for additional costs or damages by the Trade Contractor(s).
- 14.5 The Trade Contractor(s) or any Sub-contractor shall immediately contact the University of Kentucky's Department of Occupational Health and Safety through the Construction Manager should they be selected for an inspection by the Kentucky Occupational Safety and Health Compliance Division.
- 14.6 Compliance with the provisions of the foregoing sections by Sub-contractors shall be the responsibility of the Trade Contractor(s).
- 14.7 Nothing in the provisions of this Article 14 shall prohibit the U.S. Department of Labor or the Kentucky Department of Labor Division of Occupational Safety and Health from enforcing pertinent occupational safety and health standards as authorized under Federal or State Occupational Safety and Health Standards.
- 14.8 The Trade Contractor(s) shall take all necessary precautions for the safety of employees on the Work, and shall comply with all applicable provisions of federal, state, and municipal safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where the Work is being performed. If the Trade Contractor(s) or any Sub-contractor has questions related to the health or safety required by their written safety program, they should contact the Kentucky Labor Cabinet Occupational Safety and Health Program Division of Education and Training. The Trade Contractor(s) shall designate a responsible member of the on-site work force as the safety officer and shall report to the Consultant and to the Owner the name of the person selected. The duties of the safety officer include the enforcement of safety regulations.

ARTICLE 15 - HAZARDOUS MATERIALS

15.1 If the Trade Contractor(s) encounters material reasonably believed to be or suspected to be asbestos containing material, lead, polychlorinated biphenyls (PCBs), fluorescent light bulbs and ballasts, mercury or Rev 11/2020

other hazardous material, the following procedures must be followed:

- 15.1.1 The Trade Contractor(s) shall immediately stop work in the affected area and notify the Owner's Project Manager (via the Construction Manager). The Owner's Project Manager will contact the Owner's Environmental Health and Safety unit to arrange for collection of samples, review of existing data, or other testing necessary to confirm the presence of hazardous materials. The Owner's Project Manager will notify the Construction Manager in writing of the results. Until that notification is received, the Work must not continue in the affected area.
- 15.1.2 If the material is confirmed to be asbestos, lead, polychlorinated biphenyls (PCBs), fluorescent light bulbs and ballasts, mercury or other hazardous material, the Owner will take appropriate action to remove the material before the Trade Contractor(s) can continue Work in the affected area.
- 15.1.3 The Trade Contractor(s) shall not be required to perform any Work related to asbestos, lead, polychlorinated biphenyls, or other hazardous material. The Trade Contractor(s) is advised that certain classes of building materials (thermal system insulation, sprayed or troweled surfacing materials, and resilient flooring) installed before 1981 are required by law to be treated as asbestos containing until proven otherwise. These presumed asbestos containing materials must not be disturbed without confirmation from the Owner that asbestos is not present.
- The Owner, the Construction Manager, the Trade Contractor(s), and Sub-contractors will be under the requirements of the OSHA Hazard Communication Standard (29) CFR 1910.1200. The Trade Contractor(s) and Sub-contractors must provide their own written Hazard Communication Program. The Hazard Communication Standard must include: (1) A list of the hazardous chemicals to which the Trade Contractor(s)'s employees may be exposed; (2) Statement of the measures that Trade Contractor(s)'s employees and Sub-contractors may take to lessen the possibility of exposure to the hazardous materials; (3) The location of and access to the Material Safety Data Sheets (MSDS's) related to the hazardous chemicals located in the Work area; (4) Procedures that the Trade Contractor(s)'s employees and Sub-contractors are to follow if they are exposed to hazardous chemicals above the Permissible Exposure Limit (PEL). Material Safety Data Sheets may be reviewed upon request by the Trade Contractor(s) or any Sub-contractor as they pertain to the Work areas of the Project. Photocopies of the MSDS's may be made by Trade Contractor(s) at its expense.
- 15.3 The Trade Contractor(s) and Sub-contractors shall provide the Construction Manager with a list of any hazardous materials that will be used on the job site. The Trade Contractor(s) and Sub-contractors shall provide the Owner with copies of Material Data Sheets for all such materials to be used via the Construction Manager.
- 15.4 It is the policy of the Owner that PCB containing equipment will be treated by the Construction Manager and the Owner in a manner that conforms to the intent of all applicable laws and regulations (primarily 40 CFR Part 761). The following procedures shall be followed by the Trade Contractor(s) and Subcontractors while present on the Owner's Project or other property: (1) Only authorized, trained personnel may inspect, repair, or maintain PCB transformers; and (2) No combustible materials may be stored within a PCB transformer room or within five meters of a PCB transformer. Such materials include, but are not limited to, paints, solvents, plastic, paper, and wood. The Trade Contractor(s) shall not use rooms containing PCB transformers for storage rooms, staging areas, job site offices or break rooms. Violation of this policy may be grounds for dismissal of the offending Trade Contractor(s) and/or Sub-contractor from the Project. All PCB transformers at the University of Kentucky are identified by a PCB label as defined in federal regulations. If the Trade Contractor(s) should have a question as to the location of a PCB transformer, it should contact the Owner's Project Manager.
- 15.5 The Trade Contractor(s) shall ensure that NO asbestos-containing materials (including but not limited to: drywall, joint compound, roof mastic or floor tile adhesive) will be install on any University project without prior written approval of the University's Environmental Health and Safety Division. Additionally, the Trade Contractor(s) shall submit MSDS sheets and have prior approval before installing any materials that contains hazardous substances or could pose an environmental hazard. If any environmental hazardous materials are installed without written approval of the University, the Trade Contractor(s) will be responsible for all material

replacement cost, all removal and all other associated damages. Any materials removed shall be taken out in accordance with all applicable federal, state and local regulations.

ARTICLE 16 - INSPECTION OF WORK

- 16.1 Inspections, tests, measurements or other acts of the Consultant are for the sole purpose of assisting the Consultant in determining if the Work, materials, rate of progress, and quantities comply with the Contract Documents. These acts or functions shall not relieve the Trade Contractor(s) from performing the Work in full compliance with the Contract Documents, nor relieve the Trade Contractor(s) from any of the responsibility for the Work assigned to it by the Contract Documents. No inspection by the Consultant shall constitute or imply acceptance. Approval of material is general and shall not constitute waiver of the Owner's right to demand full compliance with Contract Documents.
- 16.2 All Work completed and all materials incorporated for the Project are subject to inspection by the Owner, the Consultant or their representatives to determine conformance with the Contract Documents. The Owner, Consultant and their representatives shall at all times have access to the Work whenever it is in preparation or progress. The Trade Contractor(s) shall provide, at no additional cost to the Owner, any facilities necessary for sufficient and safe access to the Work to complete any inspections required. The Consultant shall be given timely notification in order to arrange for the proper inspections to be performed on any Work outside of the normal working day or week. If the Consultant provides the Construction Manager with a list of construction milestones that require inspection, the Trade Contractor(s) shall provide the Consultant with at least five (5) Business Days written notice prior to the commencement of Work with respect to such milestone in order to permit the Consultant time to coordinate an inspection of the commencement of the applicable Work.
- 16.2.1 Normal Work hours are defined as a period between 7:00 a.m. and 5:00 p.m. Monday through Friday. The Trade Contractor(s) shall notify the Owner's Project Manager (via the Construction Manager) at least one working day prior to performance of any Work for permission to do any Work during non-normal Workhours.
- 16.3 If the Specifications, the Consultant's instructions, laws, ordinances, or any public authority require any Work to be specially inspected, tested or approved, the Trade Contractor(s) shall give the Consultant (via the Construction Manager) timely notice of the readiness of the Work for inspection. The Consultant shall promptly make all required inspections. If any portion of the Work should be covered contrary to the request of the Consultant, or to the requirements specifically expressed in the Contract Documents, the Work must be uncovered for inspection and observation and shall be uncovered and replaced at the Trade Contractor(s)'s expense.
- 16.4 If any other portion of the Work has been covered, which the Consultant has not specifically requested to observe prior to being covered, the Consultant, with the Owner's approval, may request to see such Work and it shall be uncovered by the Trade Contractor(s). If such Work is found to be in accordance with the Contract Documents, the cost of uncovering and replacement shall be charged to the Owner by appropriate Change Order. If such uncovered Work is not in accordance with the Contract Documents, the Trade Contractor(s) shall pay all costs for uncovering and replacement of such Work.

ARTICLE 17 - SUPERINTENDENT - SUPERVISION

17.1 The Trade Contractor(s) shall completely and thoroughly direct and superintend the Work in accordance with the highest standard of care for the Trade Contractor(s)'s profession so as to ensure expeditious, workmanlike performance in accordance with requirements of the Contract Documents. Except as otherwise dictated by specific requirements of the Contract Documents, the Trade Contractor(s) shall be solely responsible for and have control over all construction means, methods, techniques, sequences and procedures. The Trade Contractor(s) shall be responsible for the acts and omissions of all Sub-contractors and persons directly or indirectly employed by the Trade Contractor(s) in the completion of the Work. The Trade Contractor(s) shall be responsible for coordinating and scheduling all portions of the Work unless the Contract Documents give other specific instructions. The Trade Contractor(s) shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by the activities of the Consultant in the

administration of the Contract, or by tests, inspections or approvals required or performed by persons other than the Trade Contractor(s).

- 17.2 The Trade Contractor(s) shall have a competent superintendent on the Project site at all times during the process of the Work. The superintendent shall have authority to act on the Trade Contractor(s)'s behalf with regard to all aspects of performance of this Contract. The superintendent shall have such assistants with individual specialized competencies as may be necessary to fully understand and oversee all aspects of the Work. The Trade Contractor(s) shall also provide administrative, supervisory and coordinating personnel required to fully perform the Work and for interfacing the Work with other work of the Project. The superintendent and all assistants shall be physically fit for their work and capable of going to all locations where Work is being performed. A communication given to the superintendent shall be binding on the Trade Contractor(s). Immediately after the award of Contract, the Trade Contractor(s) shall submit to the Consultant (via the Construction Manager) a list of Trade Contractor(s)'s employees and consultants, including names, positions held, addresses, telephone numbers and emergency contact numbers.
- 17.3 The superintendent assigned shall not be changed except under the following circumstances: (1) Where the superintendent ceases to be employed by the Trade Contractor(s), in which case the Trade Contractor(s) shall give timely written notice to the Owner (via the Construction Manager) of the impending change of the superintendent and a reasonable explanation for the change; or (2) Where the Owner or the Consultant have reasonable grounds for dissatisfaction with the performance of the superintendent and give written notice to the Trade Contractor(s) of the grounds. In either case, the Trade Contractor(s) shall obtain prior written approval from the Owner of the qualifications of the proposed replacement superintendent. Such prior approval will not be unreasonably withheld.
- 17.4 If the Owner or Consultant determines that the superintendent is not performing, or is incompetent to perform the required Work, the Owner may direct the Trade Contractor(s) to remove the superintendent from the Project and replace the superintendent with an employee who has the necessary expertise and skills to satisfactorily perform the Work.

ARTICLE 18 - CHANGES IN THE WORK

- 18.1 The Owner, at any time after execution of the Contract, may make changes within the general scope of the Contract or issue additional instructions, require additional Work, or direct the deletion of Work. The Owner's right to make changes shall not invalidate the Contract or relieve the Trade Contractor(s) of any obligations under the Contract Documents. All such changes to the Work shall be authorized in writing by Change Order and shall be executed under the conditions of the Contract Document. Any adjustment of the Contract Amount or Time of Completion, as may be appropriate, shall be made only at the time of ordering such change. Change order proposals based on a reservation of rights, whether for additional compensation to be determined at a later date or for an extension of time to be determined at a later date, will not be considered for approval and shall be returned to the Trade Contractor(s) via the Construction Manager without action.
- 18.2 The cost or credit resulting from a change in Work shall be determined in one or more of the following ways:
- 18.2.1 By unit prices named in the Contract or additional unit prices subsequently agreed upon;
- 18.2.2 By agreement on a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- 18.2.3 By an amount agreed upon by the Construction Manager and the Owner as a mutually acceptable fixed or percentage fee.
- 18.3 All lump sum proposals shall include a detailed cost breakdown satisfactory to the Consultant and to the Owner for each component of Work indicating both labor and material costs. This cost breakdown shall be submitted to the Consultant promptly and with a goal of seven (7) Calendar Days or less after receipt of the proposal request.

- 18.3.1 In computing labor costs, the hourly labor rates shall not exceed a mutually agreeable combined hourly labor rate plus fringe benefits negotiated with the Owner based on a presentation of acceptable documentation by the CM. For the purposes of this Article, the term "fringe benefits" shall mean those funds transferred irrevocably to a third party for payment/distribution. In addition, there may be added by the Sub-contractor an amount agreed upon, but not to exceed ten percent (10%) of the actual cost, for overhead and profit.
- 18.3.2 The CM is entitled to a mark-up for bonds and insurance on all change orders. For change orders coded "End User Requested Changes" or "Other Owner Requested Changes" the CM may add overhead & profit in addition to the bonds and insurance referenced above. The mark-ups shall not exceed the combined percentage for overhead and profit, bonds, and insurance stated in the CM's "Financial Proposal Summary". These mark-ups will not be added to the individual change orders but will be reconciled by amendment at the completion of the project and/or on an annual basis for those projects exceeding 12 months in duration.
- If none of the above methods are mutually agreed upon or if the Trade Contractor(s) does not respond promptly, a change may be made by unilateral determination by the Construction Manager, Owner, and/or the Consultant of reasonable costs or savings attributable to the change, including a reasonable allowance for overhead and profit. If this method is utilized, the Trade Contractor(s) shall promptly proceed with the Work involved in the change upon receipt of a written order signed by the Owner. In such case, the Trade Contractor(s) shall keep and present an itemized accounting of labor, equipment, material and other costs, in such form as may be prescribed by the Consultant.
- 18.5 In all cases where Change Orders are determined by unit prices set forth in the Contract Documents, no amount is to be added for additional overhead and profit.
- 18.6 The Trade Contractor(s) shall keep and present in such form as the Consultant may direct, a correct account of all items comprising the net cost of such Work, together with vouchers. The determination of the Consultant and/or the Owner shall be final upon all questions of the amount and cost of extra Work and changes in the Work, and it shall include in such cost, the cost to the Construction Manager of all materials used, the cost of all labor (including social security, old age and unemployment insurance, fringe benefits to which the employee is entitled, and Workers Compensation insurance), and the fair rental of all machinery used upon the extra Work, for the period of such use, which was upon the Work before or which shall be otherwise required by or used upon the Work before or after the extra Work is done. If the extra Work requires the use of machinery not already on the Project site, or to be otherwise used upon the Work, then the cost of transportation of such machinery to and from the Project site shall be added to the fair rental value. Transportation costs shall not be allowable for distances exceeding one hundred (100) miles.
- 18.7 The Trade Contractor(s) shall not include or allow to be included in the cost of change in the Work any cost or rental of small tools, or any portion of the time of the Trade Contractor(s) or the superintendent, or any allowance for the use of capital, or for the cost of insurance or bond premium or any actual or anticipated profit, or job or office overhead. These items are considered as being covered under the added amount for general overhead addressed in Article 18.3
- 18.8 The Owner will not pay claims made for lost opportunities, claims made for lost production or production inefficiencies or claims made that are formula based.
- 18.9 Pending final determination of value, partial payments on account of changes in the Work may be made on recommendation of the Consultant. All Change Orders shall be in full payment and final settlement of all claims for direct, indirect and consequential costs, including all items covered and affected. Any such claim not presented by the Trade Contractor(s) for inclusion in the Change Order shall be waived.
- 18.10 The Consultant may authorize minor changes in the Work which do not involve additional cost or extension of the Contract Time, and which are not inconsistent with the intent of the Contract Documents. Such changes shall be made by an ASI issued by the Consultant, and shall be binding on the Owner and the Trade

- Contractor(s). The Trade Contractor(s) shall carry out such orders promptly. If the Trade Contractor(s) should claim that an ASI involves additional cost or delay to the completion of the Work, the Trade Contractor(s) shall give the Consultant via the Construction Manager written notice thereof within ten (10) Calendar Days after receipt of the written ASI. If this notification does not occur, the Trade Contractor(s) shall be deemed to have waived any right to claim or adjustment to the contract sum or to the contract completion time.
- 18.10.1 If the Trade Contractor(s) claims that any instructions by the Consultant involve additional cost or time extension, the Trade Contractor(s) shall give the Consultant via the Construction Manager written notice thereof within ten (10) Calendar Days after the receipt of such instructions and before proceeding to execute the change in Work. The written notice shall state the date, circumstances, whether a time extension will be requested, and the source of the order that the Trade Contractor(s) regards as a Change Order. Unless the Trade Contractor(s) acts in accordance with this procedure, any oral order shall not be treated as a change and the Construction Manager hereby waives any claim for an increase of the Contract amount or extension of the contract time.
- 18.11 Requests for extension of time related to changes in the Work shall be submitted in accordance with the requirements of Article 21 of these General Conditions.
- 18.12 Prior to final payment, the Construction Manager shall provide to the Owner a full accounting of executed change orders by and between the Construction Manager and the Trade Contracts. The Construction Manager shall also provide a reconciliation of that accounting against the executed change orders by and between the Owner and the Construction Manager.

ARTICLE 19 - RULES AND MEASUREMENTS FOR EXCAVATION

- 19.1 If applicable, the following Rules and Measurements shall apply to the use of Unit Prices for the excavation portion of the Work:
- 19.1.1 Except as provided in this Article 19 for arbitrary measurements, the quantity of excavation shall be its in-place volume before removal.
- 19.1.2 No allowance will be made for excavating additional material of any nature taken out for the convenience of the Trade Contractor(s) beyond the quantity computed under these "Rules and Measurements."
- 19.1.3 The quantities of excavation shall be computed from instrument readings taken by the Consultant's representative in vertical cross sections located at such intervals that will assure accuracy.
- 19.1.4 "Trench Excavation" for pipes shall arbitrarily be assumed to be two feet (2') wider than the outside diameter of the pipe barrel and with sides vertical.
- 19.1.5 The quantities shall be computed from plan size, or if there are no drawings, from actual measurements of the Work in place.
- 19.1.6 Each unit price shall cover, among other things, engineering (surveying) costs and keeping excavating dry.
- 19.1.7 Earth excavation for structures will be measured between the vertical planes passing 18 inches beyond the outside of the footings and from the surface of the ground to the neat lines of the bottom of the structure.
- 19.1.8 Rock excavation for structures will be measured between the vertical planes passing 18 inches beyond the outside of the footings and from the surfaces of the rock to the neat lines of the bottoms of the structures or the actual elevation of the rock ledge.
- 19.1.9 Rock excavation for pipelines trenches, unless otherwise provided for in the Specifications, shall be measured as follows: An arbitrary width of 18 inches plus the nominal diameter of the pipe multiplied by the

depth from the surface the rock to six (6) inches below the invert for pipe 24 inches in diameter or less and eight (8) inches below the invert for all pipe greater than 24 inches in diameter. No additional compensation will be allowed for excavation for bell holes, gates or other purposes. The measurement of rock excavation for manholes shall be in accordance with Section 19.1.8 above.

19.1.10 Unclassified excavation shall be measured in the same manner as earth excavation.

ARTICLE 20 - CONCEALED CONDITIONS

- 20.1 The Contract Drawings show the approximate location of the existing and new utility lines. These lines have been identified and located as accurately as possible using available information. The Trade Contractor(s) is responsible for verifying all actual locations. If utilities require relocation or rerouting that is not shown or indicated to be relocated or rerouted, the Trade Contractor(s) shall contact and cooperate with the Consultant to make the required adjustments. Any request for change in the Contract Amount by the Trade Contractor(s) shall be made pursuant to Article 18 of the General Conditions.
- 20.2 If any charted or uncharted utility service is interrupted by activities of the Construction Manager or the Construction Manager's Trade Contractor(s) for any reason, the Trade Contractor(s) shall work continuously to restore service to the satisfaction of the Owner.
- 20.2.1 If any charted utility service, or any uncharted utility service the existence of which could have been discovered by careful examination and investigation of the site of the Work by the Trade Contractor(s), is interrupted by activities of the Trade Contractor(s) or the Trade Contractor(s)'s Sub-contractor(s) for any reason, the entire cost to restore service to the satisfaction of the Owner shall be paid by the Trade Contractor(s). Should the Trade Contractor(s) fail to proceed with appropriate repairs in an expedient manner, the Owner reserves the right to have the work/repairs completed and the cost of such work/repairs deducted from the monies due or to become due to the Trade Contractor(s) pursuant to Article 22 of the General Conditions.
- 20.3 The Trade Contractor(s) shall promptly, but in no case more than ten (10) Calendar Days from the time of discovery, and before the conditions are disturbed, notify Consultant via the Construction Manager in writing of:
- 20.3.1 Subsurface or latent physical conditions or any condition encountered at the site which differ materially from those indicated in the Contract Documents and which were not known by Trade Contractor(s) or could not have been discovered by careful examination and investigation of the site of the proposed Work;
- 20.3.2 Unknown and unexpected physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered in the locale or generally recognized as inherent in the Work provided for in this Contract or,
- 20.3.3 Concealed or unknown conditions in an existing structure which are at variance with the conditions indicated by the Contract Documents, which are of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the Work provided for in this Contract, and which were not known by the Trade Contractor(s) and could not have been discovered by careful examination and investigation of the site of the Work.
- 20.4 The Consultant shall promptly investigate the conditions discovered. If the Consultant finds that conditions, which are materially different from those ordinarily encountered and generally recognized as inherent in the Work provided for in this Contract, were not known by the Trade Contractor(s), and could not have been discovered by careful examination and investigation of the site of the Work, have caused or would cause a material increase or decrease in the Trade Contractor(s)'s cost of construction or the time required for performance of any part of the Work under this contract, the Consultant will recommend and the Owner will make an equitable adjustment in the Contract Amount and/or the time allotted for performance in the Contract Documents. Failure by the Trade Contractor(s) to provide written notice to the Owner of such claims for

additional compensation or time for performance within ten (10) Calendar Days of discovery of such conditions shall constitute a waiver by the Trade Contractor(s) of the right to make such claims. The Owner will not pay claims made for lost opportunities, claims made for lost production or production inefficiencies or claims made that are formula based.

20.5 If the Consultant determines that changed conditions do not exist or are not materially different and no adjustment in the Contract Amount or time is warranted, the Trade Contractor(s) shall continue performance of the Contract as directed by the Consultant. No claim by the Trade Contractor(s) under this clause shall be allowed unless the required written notice is given and the Consultant is given adequate opportunity to investigate the conditions encountered prior to disturbance. The failure of the Trade Contractor(s) to give the Consultant proper notice of a differing site condition shall not affect the Owner's right to an equitable adjustment of the contract price or time if there is a decrease in the Contract Amount or time required to perform the Work.

ARTICLE 21 - DELAYS AND EXTENSION OF TIME

- 21.1 It is agreed that time is of essence for each and every portion of this Contract and where additional time is allowed for the completion of the Work or any part of the Work under this Contract, the new time limit fixed by such time extension shall be of the essence of this Contract. An extension of time shall not be cause for extra compensation under this Contract, except as set forth in Article 21.10 below.
- 21.2 The Trade Contractor(s) will, subject to the provisions of Articles 21.7, 21.8 and 21.9 below, be granted an extension of time and/or relief from liquidated damages when the delay in completion of the Work is due to:
- 21.2.1 Any preference, priority, or allocation order duly issued by the government;
- 21.2.2 Unforeseeable causes beyond the control and without the fault or negligence of the Trade Contractor(s) including, but not limited to, acts of God, or of the public enemy, acts of the Owner, acts of another contractor in the performance of a contract with the Owner, floods, epidemics, quarantine restrictions, strikes, and freight embargoes.
- 21.2.2.1 For such delays which stop all work on the Project for thirty (30) Calendar Days or more, the Trade Contractor(s) shall be authorized at its discretion to remove its people from the site and return when the normal progress of the work may continue.
- 21.2.3 Regardless of the cause of a delay, the Trade Contractor(s) shall expend all reasonable effort to mitigate the impact of any delay.
- 21.2.4 Requests for additional time due to delays in transportation or due to failures of suppliers shall not be considered for approval.
- 21.3 Requests for extensions of time and/or relief from liquidated damages, except for weather related claims, shall be made in writing not later than ten (10) Calendar Days after the beginning of the delay. Requests for extension of time or relief from liquidated damages shall be stated in numbers of whole Calendar Days.
- 21.4 Except as otherwise provided in the Contract Documents, extensions of the contractually required completion dates may be granted for unusually bad weather on the Project. Unusually bad weather as used herein means daily temperature or precipitation that exceeds the normal weather recorded and expected for the locality and/or the season or seasons of the year. For the purposes of this contract, it is mutually agreed that the following chart accurately defines the number of days in each month on which bad weather can reasonably be anticipated to impact weather dependent construction operations, and the Trade Contractor(s) shall anticipate this normal seasonal weather in the development of the Project baseline schedule.

Mean Number of Days When	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Max Temp 32° or Below	9	6	1	0	0	0	0	0	0	0	1	5
Precip. Is 0.10 Inch or Greater	7	6	9	7	8	8	8	6	5	5	7	7

For the purpose of this Contract, "unusually bad weather" shall be interpreted as either 1) those days in a given month on which rainfall was 0.10 inch or more that exceed the number of days shown in the row for "Precip" or 2) those days in a given month on which maximum temperature was 32 degrees F or below that exceed the number of days shown in the row for "Max Temp", whichever is greater.

- 21.4.1 Requests for extension of time due to unusually bad weather that could not reasonably have been anticipated at the time of execution of the Contract shall be made in writing not later than the tenth calendar day of the month following the month in which the delay occurred.
- 21.4.2 Requests for an extension of time due to unusually bad weather shall be considered for approval only if it is shown that a) the unusual weather event delayed work on a specific weather dependent activity or activities that had been planned to be underway on the date(s) on which the weather event occurred, as shown in the most recent update to the Project schedule that had been submitted to the Owner prior to the date of the event, and b) only if the delay to that activity or activities is shown to be the proximate cause of a corresponding delay to the contractually required completion dates for the Project shown in the most recent update to the Project schedule. The actual dates on which the delay(s) occurred must be stated and the specific activities that were directly impacted must be identified. In the event of concurrent delays, only those activities actually impacting contractually required completion dates will be considered in evaluating the merit of a delay request. Time extensions will not be considered if such adjustments do not exceed the total or remaining "float" associated with the impacted activities at the time of delay as shown in the most recent update to the Project schedule, nor for concurrent delays not caused by the Owner.
- 21.4.3 In anticipation of the possibility of delay due to unusually bad weather, the Trade Contractor(s) shall identify those activities in the baseline schedules, and those activities subsequently added to updated schedules, that might reasonably be expected to be delayed by such weather.
- 21.4.4 Delays caused by unusually bad weather shall be incorporated in the Project schedule when the schedule is next updated by showing actual dates and/or percent complete for those activities that were impacted by the unusually bad weather as well as the effects of any effort to mitigate such delays. When claims are submitted for time extensions resulting from more than one occurrence of unusually bad weather during a month, the Project schedule shall be updated to reflect such separate events sequentially so that the impact of each subsequent occurrence is shown on an adjusted Project schedule that includes all prior claims for additional time.
- 21.5 In addition to the requirements of Article 21.7 and Article 21.8 below, any request for an extension of time for strikes or lockouts shall be supported by a written statement of facts concerning the strike including, but not limited to, the dates, the craft(s) affected, the reason for the strike, efforts to resolve the dispute, and efforts to minimize the impact of the strike on the Project.
- Approval of time extensions for changes in the Work will depend upon the extent, if any, to which the changes cause delay in the completion of the various elements of construction. The Change Order granting the time extension may provide that the Contract Time will be extended only for those specific elements so

delayed and that other Work will not be altered.

- 21.7 The Contract Time will only be adjusted for causes specified above. Extensions of time will only be approved if the Trade Contractor(s) provides justification supported by the Project schedule or other acceptable data that 1) such changes are, in fact, on the critical path and extend the contractually required completion dates, and 2) the Trade Contractor(s) has expended all reasonable effort to minimize the impact of such changes on the construction schedule. No additional extension of time will be granted subsequently for claims having the basis in previously approved extensions of time.
- In support of requests for an extension of time not caused by unusual inclement weather, and concurrently with the submittal of any such request, the Trade Contractor(s) shall submit to the Consultant and the Owner via the Construction Manager a written impact analysis showing the influence of each such event on contractually required completion dates as shown in the updated Project schedule most recently submitted to the Owner prior to the event. The analysis shall include a partial network diagram showing a sequence of new or revised activities and/or durations that are proposed to be added to the existing schedule including related logic (a "fragnet"). This impact analysis and the fragnet shall include the new activities and/or activity revisions proposed to be added to the existing schedule and shall demonstrate the claimed impact on the critical path and the contractually required completion dates. The Trade Contractor(s) will not be granted an extension of time and/or relief from liquidated damages when the delay to completion of the work is attributable to, within the control of, or due to the fault, negligence, acts, or omissions of the Construction Manager and/or the Construction Manager's contractors, subcontractors, suppliers, or their respective employees and agents. Time extensions will not be considered in the event such adjustments do not exceed the total or remaining "float" associated with the impacted activities at the time of delay, nor for concurrent delays not caused by the Owner. In the event of concurrent delays, only that event actually impacting contractually required completion dates will be considered in adjusting the schedule and evaluating the merit of a delay claim. Requests for an extension of time which are not supported by this information shall not be considered for approval.
- 21.9 Approved extensions of time not caused by unusual inclement weather shall be incorporated in a revised schedule at the time of approval. No subsequent requests for time extension will be considered unless all previous approved time extensions have been incorporated in the Project schedule on which the requests are based.
- 21.10 Except as provided for in Article 21.10.1 through 21.10.3 below, no payment or compensation shall be made to the Trade Contractor(s) and extensions of the time fixed for completion of the Contract shall be the Trade Contractor(s)'s sole remedy for any and all delays, hindrances, obstructions or impacts in the orderly progress of the Work.
- 21.10.1 In addition to the provisions of Articles 18.3 and 18.3.1 above, and subject to the requirements of Article 21.8 and 21.8.1 above, if the Owner orders changes to the scope of Work for the Project that extend the then current contractually required completion dates of the Project, the Trade Contractor(s) shall be entitled to reimbursement for job site, general conditions and staffing costs associated with such delay.
- 21.10.2 If delays, hindrances, impacts or obstructions of the Trade Contractor(s)'s performance of the Contract are in whole or in part within the control of the Owner and, subject to the requirements of Article 21.8 and 21.8.1, extend contractually required completion dates of the Project, the Trade Contractor(s) shall be entitled to reimbursement for job site, general conditions and staffing costs for that portion of the costs caused by acts or omissions of the Owner.
- 21.10.3 Such reimbursements shall not include consequential or similar damages, exemplary damages, damages based on unjust enrichment theory, formula based delay claims, or any element of home office overhead.

ARTICLE 22 - CORRECTION OF WORK BEFORE FINAL PAYMENT

22.1 The Trade Contractor(s) shall promptly remove from the site and replace any material and/or correct

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any Work found by the Consultant to be defective or that fails to conform to the requirements of the Contract, whether incorporated in the Work or not, and whether observed before or after Substantial or Final Completion. The Trade Contractor(s) shall bear all costs of removing, replacing or correcting such Work or material including the cost of additional professional services necessary, and the cost of repairing or replacing all Work of separate contractors damaged by such removal or replacement.

22.2 The Consultant will notify the Trade Contractor(s) via the Construction Manager and the Owner immediately upon its knowledge that additional services will be necessary. The Owner may consent to accept such nonconforming Work and materials with an appropriate adjustment in the Contract Amount. Otherwise, the Trade Contractor(s) shall promptly replace and re-execute the Work in accordance with the Contract Documents and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement. If the Trade Contractor(s) fails to commence and continue to correct non-conforming Work within a reasonable time as determined by the Consultant, the Owner may without limitation of other rights available to the Owner and without prejudice to other remedies, take any necessary action to make the necessary corrections. If the Owner makes required corrections for non conforming Work or materials, a Change Order will be issued reflecting an equitable deduction from the Contract Amount. This amount will be deducted from payments due to the Trade Contractor(s) or, if no additional payments are due, Trade Contractor(s) or the Trade Contractor(s)'s surety shall be responsible for payment of this amount.

ARTICLE 23 - CORRECTION OF WORK AFTER FINAL PAYMENT

- 23.1 Neither the final certificate of payment nor any provisions in the Contract Documents shall relieve the Trade Contractor(s) of responsibility for materials and equipment incorporated into the Work that fails to meet specification requirements, or for the use of faulty materials or poor quality workmanship. If within one year after the date of Substantial Completion of the Work or designated portion thereof, any of the Work is found to be defective or not in accordance with the requirements of the Contract Documents, the Trade Contractor(s) shall correct it promptly after receipt of written notice from the Owner to do so. The Trade Contractor(s) shall correct any defects due to these conditions and pay for any damage to other Work resulting from their use. Nothing contained in this clause shall be construed to establish a period of limitation with respect to any obligation of the Trade Contractor(s) under the Contract including, but not limited to, warranties. The obligation of the Trade Contractor(s) under this section shall be in addition to and not in limitation of any obligations imposed by special guarantees or warranties required by the Contract, given by the Trade Contractor(s), or otherwise recognized or prescribed by law.
- 23.2 In addition to being responsible for correcting the Work and removing any non-conforming Work or materials from the job site, the Trade Contractor(s) shall bear all other costs of bringing the affected Work into compliance with the Contract requirements. This includes costs of any required additional testing and inspection services, Consultant's services, and any resulting damages to other property or to work of other contractors or of the Owner.
- 23.3 If the Trade Contractor(s) fails to correct nonconforming Work within a reasonable time as determined by the Consultant, the Owner may take necessary actions to make the necessary corrections. If the Owner makes required corrections for nonconforming Work or materials after Final Payment to the Trade Contractor(s), the Owner shall be entitled to recover all amounts for such corrections, including costs and attorney's fees, from Trade Contractor(s) via the Construction Manager or surety.

ARTICLE 24 - TERMINATION OF CONTRACT FOR CONVENIENCE OF OWNER

24.1 The Owner, by written notice to the Trade Contractor(s) via the Construction Manager, may terminate this Contract in whole or in part when it is in the interest of the Owner, at the sole discretion of the Owner. In such case, the Trade Contractor(s) shall be paid for all Work in place and a reasonable allowance for profit and overhead on Work done, provided that such payments shall not exceed the total Contract price as reduced by the value of the Work as yet not completed. The Trade Contractor(s) shall not be entitled to profit and overhead on Work not performed.

ARTICLE 25- OWNER'S RIGHT TO STOP WORK

25.1 If the Trade Contractor(s) fails to correct defective Work as required, or persistently fails to carry out the Work in accordance with the Contract Documents, the Owner by written notice may order the Trade Contractor(s) via the Construction Manager to stop the Work or any portion of the Work until the cause for the order has been eliminated to the satisfaction of the Owner. The Consultant may stop Work without written notice for 24 hours whenever in its professional opinion such action is necessary or advisable to insure conformity with the Contract Documents. The Trade Contractor(s) shall not be entitled to an adjustment in the Contract Time or Amount under this clause in the event such stoppages are determined to be the fault of the Trade Contractor(s) or its Sub-contractor(s). The right of the Owner or Consultant to stop Work shall not give rise to a duty on the part of the Owner or Consultant to exercise this right for the benefit of the Trade Contractor(s) or others.

ARTICLE 26 -TERMINATION OF CONTRACT FOR DEFAULT ACTION OF TRADE CONTRACTOR(S)

- 26.1 In addition to its rights under Articles 24 and 25, the Owner may terminate the contract upon the occurrence of any one or more of the following events:
- 26.1.1 If the Trade Contractor(s) refuses or fails to prosecute the Work (or any separable part thereof) with such diligence as will insure its completion within the agreed upon time; or if the Trade Contractor(s) fails to complete the Work within such time;
- 26.1.2 If the Trade Contractor(s) is adjudged a bankrupt or insolvent, or makes a general assignment for the benefit of creditors, or if the Trade Contractor(s) or a third party files a petition to take advantage of any debtor's act or to reorganize under the bankruptcy or similar laws concerning the Trade Contractor(s), or if a trustee or receiver is appointed for the Trade Contractor(s) or for any of the Trade Contractor(s)'s property on account of the Trade Contractor(s)'s insolvency, and the Trade Contractor(s) or its successor in interest does not provide adequate assurance of future performance in accordance with the Contract within ten (10) days of receipt of a request for assurance from the Owner;
- 26.1.3 If the Trade Contractor(s) repeatedly fails to supply sufficient qualified supervision of the work, or repeatedly fails to ensure that Sub-contractors supply adequate supervision, suitable materials or equipment, or adequate numbers of skilled workmen and supervision to the Work;
- 26.1.4 If the Trade Contractor(s) repeatedly fails to make prompt payments to Sub-contractors or suppliers at any tier, or for labor, materials or equipment;
- 26.1.5 If the Trade Contractor(s) disregards laws, ordinances, rules, codes, regulations, orders or similar requirements of any public entity having jurisdiction;
- 26.1.6 If the Trade Contractor(s) disregards the authority of the Consultant or the Owner;
- 26.1.7 If the Trade Contractor(s) performs Work which deviates from the Contract Documents, and neglects or refuses to correct rejected Work; or
- 26.1.8 If the Trade Contractor(s) otherwise violates in any material way any provisions or requirements of the Contract Documents.
- 26.2 Once the Owner determines that sufficient cause exists to justify the action, the Owner may terminate the Contract without prejudice to any other right or remedy the Owner may have, after giving the Trade Contractor(s) and its Surety three (3) Calendar Days notice by issuing a written Declaration of Default (via Construction Manager). The Owner shall have the sole discretion to permit the Trade Contractor(s) to remedy the cause for the contemplated termination without waiving the Owner's right to terminate the Contract.
- 26.3 In the event that the Contract is terminated, the Owner may demand that the Trade Contractor(s)'s

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Surety take over and complete the Work on the Contract. The Owner may require that in so doing, the Trade Contractor(s)'s Surety not utilize the Trade Contractor(s) in performing the Work. Upon the failure or refusal of the Trade Contractor(s)'s Surety to take over and begin completion of the Work within twenty (20) Calendar Days after the demand, the Owner may take over the Work and prosecute it to completion as provided below.

- 26.3.1 In the event that the Contract is terminated and the Trade Contractor(s)'s Surety fails or refuses to complete the Work, the Owner may take over the Work and prosecute it to completion in accordance with the laws of the Commonwealth, by contract or otherwise, and may exclude the Trade Contractor(s) from the site. The Owner may take possession of the Work and of all of the Trade Contractor(s)'s tools, appliances, construction equipment, machinery, materials, and plant which may be on the site of the Work, and use the same to the full extent they could be used by the Trade Contractor(s), without liability to the Trade Contractor(s). At the Owner's sole discretion, the Owner has the right to take assignment of any or all portions of the contract work in order to prosecute the completion of the Work. In exercising the Owner's right to prosecute the completion of the Work, the Owner may also take possession of all materials and equipment stored at the site or for which the Owner has paid the Trade Contractor(s) but which are stored elsewhere, and finish the Work as the Owner deems expedient. In such case, the Trade Contractor(s) shall not be entitled to receive any further payment until the Work is finished.
- 26.3.2 If the unpaid balance of the Contract Price exceeds the direct and indirect costs and expenses of completing the Work including compensation for additional professional and Consultant services, such excess shall be used to pay the Trade Contractor(s) for the cost of the Work it performed and a reasonable allowance for overhead and profit. If such costs exceed the unpaid balance, the Trade Contractor(s) or the Trade Contractor(s)'s Surety shall pay the difference to the Owner. In exercising the Owner's right to prosecute the completion of the Work, the Owner shall have the right to exercise its sole discretion as to the manner, methods, and reasonableness of the costs of completing the Work and the Owner shall not be required to obtain the lowest figure for Work performed in completing the Contract. In the event that the Owner takes bids for remedial Work or completion of the Project, the Trade Contractor(s) shall not be eligible for the award of such Contract.
- 26.3.3 The Trade Contractor(s) shall be liable for any damage to the Owner resulting from the termination or the Trade Contractor(s)'s refusal or failure to complete the Work, and for all costs necessary for repair and completion of the Project above the amount of the Contract. The Trade Contractor(s) shall be liable for all attorney's fees, costs and expenses incurred by the Owner to enforce the provisions of the Contract.
- 26.3.4 If liquidated damages are provided in the Contract and the Owner terminates the Contract, the Trade Contractor(s) shall be liable for such liquidated damages, as provided for in Article 29.2 and 29.3 below, until Substantial Completion and Final Completion of the Work are achieved.
- 26.3.5 In the event the Contract is terminated, the termination shall not affect any rights of the Owner against the Trade Contractor(s). The rights and remedies of the Owner under this Article are in addition to any other rights and remedies provided by law or under this Contract. Any retention or payment of monies to the Trade Contractor(s) via the Construction Manager by the Owner will not release the Trade Contractor(s) from liability.
- 26.3.6 In the event the Contract is terminated under this Article, and it is determined for any reason that the Trade Contractor(s) was not in default under the provisions of this Article, the termination shall be deemed a Termination for Convenience of the Owner pursuant to Article 24 and the rights and obligations of the parties shall be determined in accordance with Article 24.

ARTICLE 27 - SUSPENSION OF WORK

27.1 The Owner or the Consultant may, at any time and without cause, order the Trade Contractor(s) in writing (via the Construction Manager) or cause the Trade Contractor(s) to suspend, delay or interrupt all or any part of the Work for such period of time as the Owner may determine to be appropriate for its convenience. Adjustment may be made for any increase in the Contract time necessarily caused by such suspension or delay, in accordance with Article 21.

ARTICLE 28 - TIME OF COMPLETION

- 28.1 The Trade Contractor(s) shall begin the Work on the date of commencement as specified in the Work Order. All time limits stated in the Contract Documents are of the essence of the Contract. The actual end of the Contract Time shall be the date specified on the approved certificate of Substantial Completion. The time for completion set forth in the Contract is a binding part of the Contract upon which the Owner may rely in planning the use of the facilities to be constructed and for all other purposes.
- 28.2 Substantial Completion is defined in Article 1.1.17 of these General Conditions. Only incidental corrective Work under punch lists and final cleaning (if required) for Owner's full use shall remain for Final Completion. The ability to occupy or utilize shall include regulatory authority approval unless regulatory approval is delayed due to actions of the Owner or the Consultant. When the Owner accepts and occupies a portion of the Project, the operation, maintenance, utilities, and insurance of that portion of the Project becomes the responsibility of the Owner.
- 28.3 The date of Substantial Completion shall be that date certified by the Owner, in accordance with the following procedures, that the Work is sufficiently complete to occupy or utilize as defined above.
- 28.3.1 When the Trade Contractor(s) considers the entire Work is substantially complete as defined in Article 1.1.17 of these General Conditions, and is ready for its intended use, the Trade Contractor(s) shall notify the Consultant (via the Construction Manager) in writing and request an inspection. The declaration and request shall be accompanied by a list prepared by the Construction Manager of those items of Work still to be completed or corrected. The failure of the Construction Manager or Consultant to include any item or items which are not completed or which need correction on such list shall not alter the responsibility of the Construction Manager to complete all Work in accordance with the Contract Documents.
- 28.3.2 The Consultant shall, within a reasonable time after receipt of notification from the Construction Manager of a declaration of Substantial Completion and request for inspection, make such inspection. Prior to the Substantial Completion Inspection and within sufficient time to allow the Consultant's review, the Trade Contractor(s) shall submit all As-Built drawings, Notice of Termination, catalog data, complete operating and maintenance instructions, manufacturer specifications, certificates, warranties, written guarantees and related documents required by the contract. The Consultant shall review said documents for accuracy and compliance with the Contract Documents and incorporate them into complete operating instructions and deliver them to the Owner.
- 28.3.3 If the Consultant considers the Work substantially complete, the Consultant shall recommend that the Owner prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion and the responsibilities between the Owner and Construction Manager for security, maintenance, heat, utilities and insurance, if not otherwise provided for in the Contract Documents, and a tentative list of items to be completed or corrected, and shall fix the time within which the Trade Contractor(s) shall complete the items listed therein. This time shall not exceed thirty (30) Calendar Days unless otherwise provided for in the Work Order. The Certificate of Substantial Completion shall be submitted to the Consultant and Construction Manager for their written acceptance of the responsibilities assigned to them in the certificate. The Project shall not be deemed substantially complete until the certificate is issued. If, after making the inspection, the Consultant does not consider the Work substantially complete, the Consultant will notify the Owner and the Construction Manager in writing
- 28.4 Operation and Maintenance Manual Deliverables. In anticipation and preparation of completion of the Work and the closing out of the Project, and to facilitate training of the Owner's personnel in the maintenance and operation of the new installations, the Trade Contractor(s) shall comply with the requirements of Article 8.7 of the Special Conditions. (For the purposes of this article, air test and balance reports may be submitted at a later date with the request for certification of substantial completion.) These manuals shall be submitted to the Consultant for approval, and subsequently forwarded to the Owner's Project Manager by or before the time construction is 75% complete, as reflected by the Contractor's most recently submitted Application for Payment.

- 28.4.1 The provisions of Article 30.11 notwithstanding, if the Trade Contractor(s) meets the requirements of Article 28.4 above with respect to timely submittal of approvable Operation and Maintenance manuals and provided the project construction is 1) at least 75% complete and 2) is equal to or ahead of the approved progress schedule and 3) the Work completed is in compliance with the requirements of the contract documents, the Owner, at the sole discretion of the Director, Capital Projects Management Division may reduce the retainage to not less than three percent (5%) of the current Contract Amount. In the event the Trade Contractor(s) fails to submit acceptable O&M manuals prior to reaching 75% completion, it is agreed that the Owner at its sole discretion may deduct from the current and subsequent Applications for Payment an amount deemed by the Owner to be sufficient to encourage prompt compliance with this contractual requirement, until such time as acceptable O&M manuals are received.
- 28.5 Project Close Out. When the Trade Contractor(s) considers that all Work required by the Contract is 100% complete, including correction of any remaining punch list work or deficiencies, the Trade Contractor(s) shall notify the Consultant via the Construction Manager in writing and request a final inspection. The Consultant, upon receipt of written notice from the Construction Manager that the Work is complete and is ready for final inspection and acceptance, will promptly make such inspection and if the Consultant finds the Work completed and acceptable under the Contract Documents and the Contract fully performed, the Consultant will notify the Construction Manager in writing to submit, and will certify to the Owner a final Certificate for Payment in accordance with Articles 30.9 and 30.9.1 of these General Conditions. If the Construction Manager does not complete the punch items within the time designated, the Owner retains the right to have these items corrected at the expense of the Construction Manager including all architectural, engineering and inspection costs and expenses incurred by the Consultant and the Owner, and to deduct such costs and expenses from the funds being held in retainage. The Owner shall not be required to release the retainage until such items have been completed.

ARTICLE 29 - LIQUIDATED DAMAGES

- 29.1 The Owner, Construction Manager, and the Trade Contractor(s) recognize and agree that time is of the essence of this Contract and that the Owner will suffer financial loss if the Work is not completed within the time specified in the Contract plus any extensions that may be allowed. The parties further recognize the delays, expense and difficulties involved in proving the actual loss suffered by the Owner should the Work not be completed on time. The Owner and the Construction Manager agree on the amounts stated as liquidated damages in the Agreement. The Owner and Construction Manager agree that the amount stated as liquidated damages are not intended to be penalties.
- 29.2 Should the Trade Contractor(s) fail to satisfactorily complete the Work under Contract on or before the date stipulated for Substantial Completion, as adjusted by approved Change Orders, if any, the Trade Contractor(s) will be required to pay liquidated damages to the Owner foreach consecutive Calendar Day that the Owner is deprived of full use of the area beyond the date specified unless otherwise stipulated elsewhere by Owner. After the date for Substantial Completion has been certified by the Owner, the Trade Contractor(s) shall cease to owe liquidated damages until the date established for Final Completion.
- 29.3 If Final Completion is not achieved by the date established for Final Completion, as adjusted by approved Change Orders, if any, liquidated damages in the amount stipulated in the Agreement will become due and collectable. The Contract will be considered complete and Final Completion shall be deemed to have occurred when all Work has been completed in compliance with the Contract Documents and the Certificate of Final Completion has been issued by the Owner. No deduction or payment of liquidated damages will, in any degree, release the Trade Contractor(s) from further obligations and liabilities to complete the entire Contract. Permitting the Trade Contractor(s) to continue and finish the Work, or any part of it, after expiration of the Contract Time, shall in no way constitute a waiver on the part of the Owner of any liquidated damages due under the Contract.

ARTICLE 30 - PAYMENT TO THE CONSTRUCTION MANAGER

Payments on account of this Contract shall be made monthly as Work progresses. The Construction Rev 11/2020 28

Manager shall submit to the Consultant, in the manner and form prescribed, an application for each payment, and, if required, receipts or other vouchers showing payments made for materials and labor, including payments to Sub-contractors. All payments shall be subject to any withholding or retainage provisions of this contract. All pay request documents, except the final payment, shall be submitted in whole dollar amounts. All payment applications from the Construction Manager shall include line items for overhead, profit and general condition costs.

- 30.2 The Consultant shall, within ten (10) Business Days after receipt of each application for payment, certify approval of payment in writing to the Owner and present the application to the Owner, or return the application to the Construction Manager indicating in writing its reasons for refusing to approve payment. The Owner, provided no exception is taken to the application for payment submitted by the Consultant, will issue payment on or within thirty (30) Business Days from the date received from the Consultant. A reasonable delay on the part of the Owner in making payment to the Construction Manager for any given payment shall not be grounds for breach of Contract. The Consultant may refuse to approve the whole or any part of any payment if it would be incorrect to make such presentation to the Owner.
- 30.3 If payment is requested on the basis of materials and equipment not incorporated in the Work, but delivered and suitably stored at an off jobsite location agreed to in writing by the Owner that meets the manufacturer's requirements for the stored material and not-comingled with other material, the Trade Contractor(s) via the Construction Manager must furnish the following:
- 30.3.1 A list of the materials consigned to the Project (which shall be clearly identified), giving the place of storage, together with copies of invoices.
- 30.3.2 Certification that all items have been tagged for delivery to the Project and that they will not be used for any other purpose.
- 30.3.3 A letter from the Surety indicating that the Surety agrees to the arrangements and that payment to the Trade Contractor(s) shall not relieve either the Construction Manager or its Surety of their responsibility to complete the Work.
- 30.3.4 Evidence of adequate insurance listing the Owner as an additional insured covering the material in storage.
- 30.3.5 Evidence that representatives of the Construction Manager has visited the Trade Contractor(s) place of storage and checked all items listed on the Trade Contractor(s) certificate. They shall certify, insofar as possible, that the items are in agreement with the Specifications and approve their incorporation into the Project.
- 30.4 The Owner will pay 80% of the invoiced value less retainage for materials stored off site providing the above conditions are met.
- 30.5 The Trade Contractor(s)'s signature on each subsequent application for payment shall certify that all previous progress payments received on account of the Work have been applied to discharge in full all of the Trade Contractor(s)'s obligations reflected in prior applications for payment.
- 30.6 Each payment made to the Trade Contractor(s) shall be on account of the total amount payable to the Trade Contractor(s) and the Trade Contractor(s) warrants and guarantees that the title to all materials, equipment and Work covered by the paid partial payment shall become the sole property of Owner free and clear of all encumbrances. Nothing in this Article shall be construed as relieving Trade Contractor(s) from the sole responsibility for care and protection of materials, equipment and Work upon which payments have been made or restoration of any damaged Work or as a waiver of the right of Owner to require fulfillment of all terms of the Contract Documents.
- 30.7 Within thirty (30) Calendar Days of the award of any Trade Contracts, and prior to submitting the next application for payment, the Trade Contractor(s) shall submit to the Consultant and the Owner via the Rev 11/2020

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Construction Manager for approval a detailed breakdown of the Contract Amount including all trade contracts that have been awarded as of the date of that application for payment pursuant to CSI specification divisions, divided so as to facilitate payment and correlated to the schedule required by General Conditions Article 32 of the Contract Documents. The total value of all activities shall add up to the Contract Amount. When approved by the Consultant and the Owner, this schedule shall be used as a basis for Trade Contractor(s)'s applications for payment and may be used by the Owner to determine costs or credits resulting from changes in the Work. Failure to obtain the approval of the Schedules of Values shall be a basis for withholding payment to the Trade Contractor(s)

- Retainage The Owner will retain ten percent (10%) of the Construction Manager and Trade 30.8 Contractor(s)'s progress payments, including amounts claimed for construction management fee until fifty one percent (51%) of the construction project has been completed. Thereafter, if the Work is fully in compliance with the requirements of the Contract and except as provided for in Article 28.4.1 above, the Owner shall retain five percent (5%) of the total contract amount until Substantial Completion and acceptance of all Work covered by this Contract, as collateral security to insure successful completion of the Work. For the purposes of this Article, the term "in full compliance" shall mean 1) that the progress of the Work is equal to or ahead of that predicted by the Project Baseline schedule and 2) the Work completed is in compliance with the requirements of the contract documents. Subsequent to the issuance of the Substantial Completion Certificate and depending upon the cost involved for the completion and/or correction of punch list items, the Consultant may recommend to the Owner an adjustment to the amount being held as retainage and, if approved by Owner, the amount of retainage may then be reduced and a sufficient sum retained by Owner to assure completion of the remaining unfinished Work. Retainage reduction as provided for in this Article 30.8 is contingent upon the Trade Contractor(s) and/or Sub-contractors being on or ahead of the approved progress schedule and on verification by the Consultant that the Work completed is in compliance with the requirements of the contract documents.
- 30.8.1 In addition to the retainage set forth above, the Owner may withhold from any monthly progress payments or nullify any progress payments in whole or in part as necessary to protect the Owner from loss on account of:
- 30.8.1.1 Defective Work which has not been remedied or completed Work which has been damaged requiring correction or replacement, or
- 30.8.1.2 Action required by the Owner to correct Defective Work or complete Work which the Trade Contractor(s) has failed or refused to correct or complete, or
- 30.8.1.3 Failure of the Trade Contractor(s) to perform any of its obligations under the Contract, or
- 30.8.1.4 Failure of the Trade Contractor(s) to make payment properly to Sub-contractors; suppliers of material, services or labor; or to reimburse the University for utilities or other services as provided for in the Contract;
- 30.8.1.5 Amounts to be withheld as liquidated damages for failure to complete the Project in the allotted Contract time.
- 30.8.2 When the Owner is satisfied that the Trade Contractor(s) has remedied any such deficiency, payments shall be made of the amount being withheld on the next scheduled application for payment.
- 30.9 Final Payment When all Work is completed and acceptable and the Contract is fully performed, the Construction Manager will be directed to submit a final payment application for certification and the entire balance shall be due and payable upon a certification of completion by the Consultant that the Work is in accordance with the Contract Documents. Final change order reconciliation as per Article 18.12 must be provided prior to final payment.
- 30.9.1 Upon issuance of the Certificate of Final Completion by the Owner and submittal by the Construction Manager and Trade Contractor(s) of all required documents and releases, all retained amounts shall be paid to the Construction Manager as part of the Final Payment. By accepting such payment, the Construction Manager certifies that all amounts due or that may become due to any Trade Contractor(s), Sub-contractor, any Consultant of the Construction Manager, or any vendors or material suppliers, have been paid or will be paid

from the proceeds of the final payment; and that, further, there are not liens, claims or disputes involving the Owner or the Consultant that are outstanding or unresolved.

30.10 The Trade Contractor(s) shall promptly pay each Sub-contractor and material supplier upon receipt of payment from the Construction Manager (via the Owner) the amount to which said Sub-contractor and supplier is entitled, reflecting the percentage actually retained from payments to the Trade Contractor(s) on account of such Sub-contractor's work. The Trade Contractor(s) shall, by an appropriate Agreement with each Sub-contractor and material supplier, require each Sub-contractor and supplier to make payments to their sub-contractors, vendors and suppliers in similar manner.

The Consultant may, on request, furnish to any Sub-contractor or material supplier information regarding the percentages of completion applied for by the Trade Contractor(s) and the action thereon by the Consultant.

30.10.2 Neither the Owner nor the Consultant shall have any obligation to make payment to any Sub-contractor or material supplier except as may otherwise be required by law.

ARTICLE 31 - AUDITS

- 31.1 The Construction Manager's Trade Contractors', sub-contractors' and/or vendor's "records" shall upon reasonable notice be open to inspection and subject to audit and/or reproduction during normal business working hours as may be deemed necessary by the Owner at its sole discretion.

 Such audits may be performed by an Owner's representative or an outside representative engaged by the Owner. The Owner or its designee may conduct such audits or inspections throughout the term of this contract and for a period of three years after final payment, or longer if required by law. Owner's representative may (without limitation) conduct verifications such as counting employees at the Construction Site, witnessing the distribution of payroll, verifying information and amounts through interviews and written confirmations with Construction Manager's employees, field and agency labor, Trade Contractors and vendors.
- 31.2 "Records" as referred to in this Contract shall include any and all information, materials and data of every kind and character, including without limitation, records, books, papers, documents, subscriptions, superintendents' reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information and matters that may in the Owner's judgment have any bearing on or pertain to any matters, rights, duties or obligations under or covered by any Contract Document. Such records shall include hard copy, as well as computer readable data if it can be made available, written policies and procedures; time sheets; payroll registers; cancelled payroll checks; subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, etc.); original estimates; estimating work sheets; correspondence; change order files (including documentation covering negotiated settlements); back charge logs and supporting documentation; invoices and related payment documentation; general ledger; records detailing cash and trade discounts earned; insurance rebates and dividends; and any other Construction Manager or contractor records which may have a bearing on matters of interest to the Owner in connection with the Construction Manager's dealings with the Owner (all foregoing hereinafter referred to as the "records") to the extent necessary to adequately permit evaluation and verification of any or all of the following:

Compliance with Contract requirements for deliverables;

Compliance with approved plans and specifications;

Compliance with Owner's business ethics expectations;

Compliance with Contract provisions regarding the pricing of change orders;

Accuracy of Trade Contractor(s) representations regarding pricing of invoices; and

Accuracy of Trade Contractor(s) representations related to claims submitted by the

Construction Manager or its payees.

The Construction Manager shall require all payees (examples of payees include Trade Contractors, Sub-contractors, vendors, and/or material suppliers) to comply with the provisions of this Article by including the requirements hereof in a written contract agreement between the Construction Manager and payees. Such requirements to include flow-down right of audit provisions in contracts with payees will also apply to Subcontractors and Sub-subcontractors, material suppliers, etc. The Construction Manager will cooperate fully Rev 11/2020

and will cause all related parties and all of the Construction Manager's Trade Contractors and/or subcontractors (including those entering into lump sum subcontracts) to cooperate fully in furnishing or in making available to Owner from time to time whenever requested, in an expeditious manner, any and all such information, materials and data.

- 31.4 Owner's authorized representative or designee shall have reasonable access to the Construction Manager's facilities, shall be allowed to interview all current or former employees to discuss matters pertinent to the performance of this contract and shall provide adequate and appropriate work space in order to conduct audits in compliance with this Article. The Construction Manager and its payees agree bear their costs and expenses relating to any inspections and audits.
- 31.5 If an audit inspection or examination in accordance with this Article discovers any fraud or misrepresentation, or discloses overpricing or overcharges (of any nature) by the Trade Contractor(s) to the Construction Manager and/or Owner, in addition to making adjustments for the overcharges, the reasonable actual cost of the Owner's audit shall be reimbursed to the Owner by the Construction Manager. Any adjustments and/or payments that must be made as a result of any such audit or inspection of the Construction Manager's invoices and/or records shall be made within Ninety (90) Calendar Days from presentation of the Owner's findings to the Construction Manager.
- 31.6 The provisions of Articles 31.1, 31.2 and 31.5 notwithstanding, the Owner shall have the right to conduct inspections and audits of any matter relating to the Contract Documents or the Work, which shall be for the Owner's sole benefit and shall not relieve the Trade Contractor(s), its sureties, contractors, subcontractors suppliers and their respective employees and agents of any obligations under the Contract Documents.
- 31.7 Any audits or inspections under Article 31 shall not constitute a waiver of any right the Owner has to accounting or discovery of records in the possession, custody or control of the Trade Contractor(s), its sureties, contractors, subcontractors, vendors and their respective employees and agents

ARTICLE 32 - PROGRESS & SCHEDULING

- 32.1 If requested by the Owner during the Design Phase of the Project, and working in cooperation with the Owner and the Consultant(s), the Construction Manager shall prepare a Critical Path Method (CPM) type Design Phase schedule incorporating design phase and review activities through completion of the design and bidding of the Trade Contracts, shall include in this Design Phase schedule the broad categories of Work to be accomplished in the subsequent implementation of the design and construction of the Project, and shall modify and update this Design Phase schedule as necessary to reflect the actual status and then current plan for the Project.
- 32.2 The schedules submitted for this Project shall be prepared using Primavera P6 scheduling software. If approved by the University, and at the sole discretion of the University, schedules submitted using earlier versions of Primavera scheduling software (Primavera SureTrak or Primavera P3) may be converted to Primavera P6 format by the University for review purposes. However, the University will not be responsible for any inaccuracies that may result from such conversions.
- 32.2.1 Prior to bidding Trade Contracts, the Construction Manager shall prepare and submit to the Owner and the Consultant a preliminary CPM construction schedule for the Work that will be included in the Project bidding documents.
- 3.2.2.2 The schedules submitted for this Project shall coordinate Work in accordance with all schedules included in the Owner's approved Program. Construction work shall be scheduled and executed such that operations of the University are given first priority. This applies particularly to outages and restriction of access.
- 32.2.3 The schedules submitted for this Project shall not exceed time limits established for the Project. Schedules which reflect a duration less than the Contract Time are for the convenience of the Construction

Manager and shall not be the basis of any claim for delay or extension of time.

- 32.2.4 Schedules shall be revised at appropriate intervals as required by the condition of the Work and the Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.
- 32.2.5 The Construction Manager shall also submit a payment schedule indicating the percentage of the Contract Amount and the amount of the anticipated monthly payments that will be requested as the Project proceeds.
- 32.2.6 The Owner may withhold approval of all or a portion of progress payments until the progress payment schedule and construction schedule have been submitted by the Construction Manager.
- 32.3 The Construction Manager shall prepare and keep current, for the Consultant's approval, a separate schedule of submittals coordinated with the Construction Manager's CPM construction schedule that provides reasonable time for the Consultant to review the submittals.
- 32.4 The Trade Contractor(s) shall cause the work to be performed pursuant to the most recent schedules.

ARTICLE 33 - USE OF COMPLETED PORTIONS

33.1 Upon mutual Agreement between the Owner, Construction Manager, and Consultant, the Owner may use a completed portion of the Project after an inspection is made. Such possession and use shall not be deemed as acceptance of any Work not completed in accordance with the Contract Documents, nor shall such possession and use be considered to alter warranty obligations or cause any warranty period to commence prior to Substantial Completion.

ARTICLE 34 - INDEMNIFICATION

- 34.1 To the fullest extent permitted by law, the Trade Contractor(s) shall indemnify and hold harmless the Owner, Construction Manager, its consultants, and their respective employees and agents from and against all claims, damages, losses and expenses, including attorney's fees, provided that any such claim, loss, damage or expense: (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom, and (b) is caused in whole or in part by any negligent act or omission of the Trade Contractor(s), any Sub-contractor or material supplier, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable This basic obligation to indemnify shall not be construed to nullify or reduce other indemnification rights which the Owner, its consultants, and their respective employees and agents would otherwise have.
- 34.2 The Trade Contractor(s) shall also indemnify and hold harmless the Owner, Construction Manager, its consultants, and their respective employees and agents from any claims relating to the Project brought against the Owner, its consultants, and their respective employees and agents by any Sub-contractor unless such claims are due to the gross negligence or misconduct of the Owner or Consultant.
- 34.3 In any and all claims against the Owner its consultants, and their respective employees and agents, by any employee of the Trade Contractor(s), any Sub-contractor, any one directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Article shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Trade Contractor(s) or any Sub-contractor under Worker's Compensation acts, disability benefit acts or other employee benefit acts.
- The obligations of the Trade Contractor(s) under this Article shall not extend to the liability of the Consultant, his agents or employees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or (2) the

giving of or the failure to give directions or instructions by the Consultant, his agents or employees, provided such giving or failure to give is the primary cause of injury or damage.

ARTICLE 35 - INSURANCE

- 35.1 The Trade Contractor(s) shall furnish the Owner (via the Construction Manager) the Certificates of Insurance or other acceptable evidence that insurance is effective, and guarantee the maintenance of such coverage during the term of the Contract. Each policy of insurance, except Workers Compensation, shall name the University of Kentucky and the directors, officers, trustees and employees of the University as additional insured on a primary and non-contributory basis as their interest appears. Waiver of subrogation in favor of the University of Kentucky shall apply to all policies. Any endorsements required to validate such waiver of subrogation shall be obtained by the Trade Contractor(s) at the Trade Contractor(s)'s expense. Reference the Turner CCIP manual for additional details
- 35.2 The Trade Contractor(s) shall not commence, nor allow any Sub-contractor to commence Work under this Contract, until the Owner has reviewed the certificates and approved coverages and limits as satisfying the requirements of the bidding process.
- 35.3 Workers' Compensation and Employers' Liability Insurance. The Trade Contractor(s) shall acquire and maintain Workers' Compensation insurance with Kentucky's statutory limits and Employers' Liability insurance as defined in the Special Conditions for all employees who will be working at the Project site. In the event any Work is sublet, the Trade Contractor(s) shall require any Sub-contractor to provide proof of this insurance for the Sub-contractors' employees, unless such employees are covered by insurance provided by the Trade Contractor(s).
- 35.4. The Trade Contractor(s) shall either require each Sub-contractor to procure and maintain insurance of the type and limits stated during the terms of the Contract, or insure the activities of such Sub-contractors under a blanket form as described below:
- 35.4.1 Commercial General Liability Insurance. The Trade Contractor(s) shall acquire and maintain a Broad Form Comprehensive General Liability (CGL) Insurance Policy including premises
- operations, products/completed operations, blanket contractual, broad form property damage, real property fire legal liability and personal injury liability coverage. The Insurance Policy must be on an "occurrence" form only, unless approved by the Owner. Contractual liability must be endorsed to include defense costs. Products and completed operations insurance must be carried for two years following completion of the Work. Policies which contain Absolute Pollution Exclusion endorsements are not acceptable. Coverage must include pollution from "hostile fires". Where required by the risks involved, Explosion, Collapse and Underground (XCU) coverages shall be added by endorsement. If the work involved requires the use of helicopters, a separate aviation liability policy as defined in the Special Conditions will be required. If cranes and rigging are involved, a separate inland marine policy with liability limits as defined in the Special Conditions will be required.
- 35.4.1.1 The limits of liability shall not be less than defined in the Special Conditions.
- 35.4.2 Comprehensive Automobile Liability Insurance. The Trade Contractor(s) shall show proof and guarantee the maintenance of insurance to cover all owned, hired, leased or non-owned vehicles used on the Project. Coverage shall be for all vehicles including off the road tractors, cranes and rigging equipment and include pollution liability from vehicle upset or overturn. Policy limits shall not be less than defined in the Special Conditions.
- 35.4.3 Excess or Umbrella Liability Insurance. The Trade Contractor(s) shall acquire and maintain a policy of excess liability insurance in an umbrella form for excess coverages over the required primary policies of broad form commercial general liability insurance, business automobile liability insurance and employers' liability insurance. This policy shall have a minimum as defined in the Special Conditions for each occurrence in excess of the applicable limits in the primary policies. The excess liability policy shall not contain an absolute pollution exclusion and shall include coverages for pollution that may occur due to hostile fires and vehicle upset and overturn. The limits shall be increased as appropriate to cover any anticipated special exposures.

Builders Risk Insurance. The Construction Manager shall purchase and maintain an "all risk" Builder's Risk Insurance policy upon the Work at the site to the full insurable value thereof. Such insurance shall include interests of the Owner, Construction Manager, and all Sub-contractors and of their subcontractors. It shall insure against perils of fire, extended coverage, vandalism and malicious mischief. Trade Contractor(s)'s work performed, and materials to be incorporated into the project and stored on the jobsite, will be covered. Any such event occurring upon the Work Site covered under this policy and for which a claim is filed, the causing trade contractor shall held responsible to incur the deductible cost of this policy in its entirety for said occurrence per below costs. Builder's Risk does not include temporary buildings, or Trade Contractor(s) or Trade Contractor(s)'s tools, equipment, or trailers and contents.

<u>Deductibles applied per OCCURANCE:</u>

\$ 10,000: Base Rate

\$ 50,000: Water Damage, Gross Negligence

\$100,000: Flood, Earthquake, Windstorm, Costal Windstorm

35.6 Insurance Agent and Company Insurance as required in the bidding process of the Project shall be written according to applicable state law in Kentucky. The policies shall be written by an insurer duly authorized to do business in Kentucky in compliance with KRS: 304.1-.100 and -110.

ARTICLE 36 - PERFORMANCE AND PAYMENT BONDS

- 36.1 The Construction Manager shall furnish a Performance Bond in the form provided in the Contract Documents in the full amount of the Contract Amount as security for the faithful performance of the Contract. The Construction Manager shall also furnish a Payment Bond in the form provided in the Contract Documents in the full amount of the Contract Amount for the protection of all persons performing labor or furnishing materials, equipment or supplies for the Construction Manager or its Sub-contractors for the performance of the Work provided for in the Contract, including security for payment of all unemployment contributions which become due and payable under Kentucky Unemployment Insurance Law.
- 36.2 Each bond furnished by the Construction Manager shall incorporate by reference the terms of the Contract as fully as though they were set forth verbatim in such bonds. In the event the Contract Amount is adjusted by Change Order, the penal sum of both the performance bond and the payment bond shall be deemed increased by like amounts.
- 36.3 The performance and payment bonds shall be executed by a surety company authorized to do business in the Commonwealth of Kentucky, and the contract instrument of bonds must be countersigned by a duly appointed and licensed resident agent.

ARTICLE 37 - DAMAGED FACILITIES

- 37.1 The Trade Contractor(s) shall repair or replace, at no expense to the Owner, any damaged section of existing buildings, paving, landscaping, streets, drives, utilities, watersheds, etc. caused by Work performed under the Contract or incidental thereto, whether by the Trade Contractor(s)'s own forces, Sub-contractors or by material suppliers. Such repair or replacement shall be performed by craftsmen skilled and experienced in the trade or craft for the original Work.
- Water damage to the interior of any building caused by Work performed under the Contract or incidental thereto, whether by the Trade Contractor(s)'s own forces, Sub-contractors, or by material suppliers, and whether occurring in a new or existing building, shall be repaired by the Trade Contractor(s) at the Trade Contractor(s)'s expense, and any materials damaged inside the building, including personal property, shall be repaired or replaced at the full replacement cost by the Trade Contractor(s) at the Trade Contractor(s)'s expense.
- 37.3 For existing buildings, the Trade Contractor(s), along with the Owner's Representative and Consultant, will tour the Project site to evaluate existing conditions and determine any existing damage before

any Work on this Contract is done.

37.4 Should the Trade Contractor(s) fail to proceed with appropriate repairs in an expedient manner, the Owner reserves the right to have the Work/repairs completed and deduct the cost of such Work/repairs from amounts due or to become due to the Trade Contractor(s). If the Owner deems it not expedient to repair the damaged Work, or if repairs are not done in accordance with the Contract, an equitable deduction from the Contract price shall be made.

ARTICLE 38 - CLAIMS & DISPUTE RESOLUTION

- 38.1 All Trade Contractor(s) claims and disputes shall be referred to the Consultant via the Contruction Manager for review and recommendation. All claims shall be made in writing to the Consultant and to the Owner's Project Manager not more than ten (10) days from the occurrence of the event which gives rise to the claim or dispute, or not more than ten (10) days from the date that the Trade Contractor(s) knew or should have known of the claim or dispute. Unless the claim is made in accordance with these requirements, it shall be waived. Any claim not submitted before Final Payment shall be waived. The Consultant shall render a written decision within fifteen (15) days following receipt of a written demand for the resolution of a claim or dispute.
- 38.1.1 The provisions of Article 43.2 notwithstanding, claims and disputes between the Construction Manager and any Sub-contractor or supplier shall not be referred to the Consultant except to request interpretation and/or clarification of the intent of the plans or specifications. Such claims and disputes between the Construction Manager and any Sub-contractor shall be resolved between those parties as required by Article 43.4 of these General Conditions.
- 38.2 The Consultant's decision shall be final and binding on the Trade Contractor(s) unless the Construction Trade Contractor(s) submits to the Consultant via the Construction Manager and the Owner's Project Manager a written notice of appeal within fifteen (15) Calendar Days of the Consultant's decision. The Trade Contractor(s) must present within fifteen (15) Calendar Days of such notice to appeal a narrative claim in writing with complete supporting documentation. After receiving the written claim, the Project Manager will review the materials relating to the claim and may meet with the Consultant and/or the Trade Contractor(s) to discuss the merits of the claim. The Project Manager will render a decision within thirty (30) Calendar Days after receiving the written claim and supporting documentation. The decision of the Project Manager shall be final and binding pending further appeal as provided for in Article 39. If the Consultant or the Project Manager do not issue a written decision within thirty (30) calendar days after receiving the claim and supporting documentation, or within a longer period as may be established by the parties to the Contract in writing, then the Trade Contractor(s) may proceed as if an adverse decision had been received.
- 38.3 If the Project Manager does not agree with the Consultant's decision on a claim by the Trade Contractor(s), the Project Manager shall notify the Trade Contractor(s) via the Construction Manager and the Consultant and direct the Trade Contractor(s) to perform the Work about which the claim was made and the Trade Contractor(s) shall proceed with such Work in accordance with the Project Manager's instruction. If the Trade Contractor(s) disagrees with a decision of the Project Manager concerning a Trade Contractor(s)'s claim, the Trade Contractor(s)'s shall proceed with the Work as indicated by the Project Manager's decision.
- 38.4 The Trade Contractor(s) shall continue to diligently pursue Work under the Contract pending resolution of any dispute, and the Owner shall continue to pay for undisputed work in place.

ARTICLE 39 - CLAIMS FOR DAMAGE

39.1 Should either party to the Contract suffer damage because of wrongful act or neglect of the other party, or of anyone employed by them, or others for whose act they are legally liable, or if other controversy should arise under the Contract, such claim or controversy shall be made in writing to the other party within thirty (30) days after the first occurrence of the event. Prior to the institution of any action in court, the claim or controversy (together with supporting data) shall be presented in writing to the Director of the Capital Project Management Division at the University of Kentucky ("Director") or his designee. The Director, or designee, is authorized, subject to any limitations or conditions imposed by regulations, to settle, comprise, pay, or otherwise adjust the claim or controversy with the Trade Contractor(s). The Director, or designee, shall

promptly issue a decision in writing. A copy of the decision shall be mailed or otherwise furnished to the Trade Contractor(s). The decision rendered shall be final and conclusive unless the Trade Contractor(s) files suit pursuant to KRS 45A.245. If the Director, or designee, does not issue a written decision within one hundred and twenty (120) days after written request for a final decision, or within a longer period as may be established by the parties to the Contract in writing, then the Trade Contractor(s) may proceed as if an adverse decision had been received.

Any legal action on the Contract shall be brought in the Franklin Circuit Court and shall be tried by the Court sitting without a jury. All defenses in law or equity, except the defense of government immunity, shall be preserved to the Owner. The Owner shall recover from the Trade Contractor(s) all attorney's fees, costs and expenses incurred to the extent the Owner prevails in defending or prosecuting each claim in litigation of disputes under the Contract. The Owner is the prevailing party under this provision and is entitled to recover attorneys' fees, costs and expenses on a claim-by-claim basis to the extent the Owner successfully defeats or prosecutes each claim. A recovery of a net judgment by the Trade Contractor(s) shall not be determinative of the Owner's right to recover attorneys' fees, expenses and costs. Rather, such a determination shall be made based on the extent that the Owner successfully defends or prosecutes each distinct claim in litigation under the Contract, even if the Owner does not prevail on every claim. The Trade Contractor(s) shall be liable to the Owner for all attorney's fees, costs and expenses incurred by the Owner to enforce the provisions of the Contract.

ARTICLE 40 - LIENS

- 40.1 The filing and perfection of liens for labor, materials, supplies, and rental equipment supplied on the Work are governed by KRS 376.195 et seq.
- 40.2 Statements of lien shall be filed with the Fayette County Clerk and any action to enforce the same must be instituted in the Fayette Circuit Court, pursuant to KRS 376.250 (5).
- 40.3 The lien shall attach only to any unpaid balance due the Trade Contractor(s) for the improvement from the time a copy of statement of lien, attested by the Fayette County Clerk, is delivered to the Owner, pursuant to the provisions of KRS 376.240.

ARTICLE 41 - ASSIGNMENT

41.1 Neither party to the Contract shall assign the Contract, or any portion thereof without the prior written consent of the other, which consent may be granted or withheld in the granting party's sole and absolute discretion. The Trade Contractor(s) shall not assign any amount or part of the Contract or any of the funds to be received under the Contract unless the Construction Manager has the prior written approval of the Owner (which approval may be granted or withheld in the Owner's sole and absolute discretion) and the Surety on the Construction Manager's bond has given written consent to any such assignment.

ARTICLE 42 - SEPARATE CONTRACTS

- 42.1 The Owner reserves the right to enter into other Contracts in connection with the Project or to perform any work with the Owner's forces in the normal sequence of the work as depicted in the then current construction schedule. Except for work performed by University personnel, such contracts shall be assignable to the Construction Manager and shall contain the same terms and conditions as the contracts between the Construction Manager and the Sub-contractors. The Construction Manager will be entitled to a maximum of three percent (3%) overhead and profit on the value of such assigned contracts. The Construction Manager shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate its Work with theirs in such manner as the Consultant may direct.
- 42.2 Should the Trade Contractor(s) cause damage to any separate contractor on the Work, and the separate contractor sues the Owner on account of any damage alleged to have been so sustained, the Trade Contractor(s) shall be responsible for all costs, attorney's fees and expenses incurred by the Owner for defending such proceedings unless the Owner prevails on behalf of the Trade Contractor(s)'s in which case Rev 11/2020

fees and expenses will be the responsibility of the separate contractor and if any judgment against the Owner arises therefrom, the Trade Contractor(s) shall pay or satisfy it and shall pay all costs, attorney's fees and expenses incurred by the Owner.

- 42.3 If any part of the Trade Contractor(s)'s Work depends upon the work of any other separate contractor, the Trade Contractor(s) shall promptly report to the Consultant via the Construction Manager any observed defects in such work that render it unsuitable for proper execution connection. The failure to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of the work, except as to defects which may develop in the other contractor's work after the execution of the work.
- Whenever work being done by the Owner's forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various parties involved shall be established by the Owner to secure the completion of the various portions of the Work in general harmony.

ARTICLE 43 - CONSTRUCTION MANAGER/SUB-CONTRACTOR RELATIONSHIP

- 43.1 The Construction Manager is fully responsible to the Owner for the acts and omissions of the Sub-contractors and of persons either directly or indirectly employed by them. The Construction Manager is responsible for the acts and omissions of persons employed directly by the Construction Manager and for the coordination of the Work, including placement and fittings of the various component parts. No claims for extra costs as a result of the failure to coordinate the Work, or by acts or omissions of the various Sub-contractors, will be paid by the Owner.
- 43.2 Except as otherwise provided in these Contract Documents, the Construction Manager agrees to bind every Sub-contractor by the terms and conditions of the Contract Documents as far as applicable to their portion of the Work. Upon request, the Construction Manager shall provide copies of any subcontracts and purchase orders to the Owner or Consultant.
- 43.3 The Construction Manager shall make no substitution or change in any Sub-contractor listed and accepted by the Consultant or Owner except as approved in writing by the Owner. The Construction Manager shall not employ any Sub-contractor or supplier against whom the Owner or the Consultant has made reasonable and timely objection. The Construction Manager (CM) will not be allowed to self-perform work or bid on any of the proposed work categories unless a subcontractor fails to perform and upon prior approval by the Universities authorized representatives."
- 43.4 Nothing contained in the Contract Documents shall create any contractual relationship between the Owner and any Sub-contractor, Trade Contractor or Supplier, nor shall the Construction Manager include any language in their contracts with any Sub-contractor, Trade Contractor and/or Supplier that might Imply such a relationship. The Construction Manager is hereby notified that it is the Construction Manager's contractual obligation to settle disputes between Sub-contractors, Trade Contractors, and/or Suppliers. Neither the Owner nor the Consultant will settle disputes between the Construction Manager and any Sub-contractor, Trade Contractor, and/or Suppliers.
- 43.4.1 The Owner does not waive sovereign immunity under KRS 45A.245(1) for any claim or claims made by parties not having a written contract with the University of Kentucky.
- 43.4.2 Third party and/or flow-through type claims, from Sub-contractors and/or suppliers or any other entity not having a written contract directly with the University, are specifically prohibited by this Contract and no provision of the Construction Manager's contracts with such entities shall indicate otherwise.
- 43.4.3 The Construction Manager shall indemnify and hold harmless the Owner and its agents and employees from any claims relating to the Project brought against the Owner by any of the Construction Manager's Sub-contractors or suppliers, or between their sub-contractors or suppliers.

ARTICLE 44 - CASH ALLOWANCE

44.1 The Construction Manager is to provide or require the Sub-contractor(s) to include in the Contract

Amount all costs necessary to complete the Work. Costs based on "allowances" shall be permitted only for objectively quantifiable material items and only with the prior written approval of the Owner.

ARTICLE 45 - PROJECT SITE LIMITS

45.1 The Construction Manager shall confine the apparatus, the storage of materials, and the operations of Workmen to Project site limits indicated in the Contract Documents and as permitted by law, ordinances, and permits, and shall not unreasonably encumber the site with materials and equipment.

ARTICLE 46 - CLEAN UP

- 46.1 The Trade Contractor(s) shall at all times keep the premises free from accumulation of waste material or rubbish caused by the operations in connection with the Work. All corridors and exit doors must be kept clear at all times. All exit ways, walks, and drives must be kept free of debris, materials, tools and vehicles.
- 46.2 At the completion of the Work, and prior to final inspection and acceptance, the Trade Contractor(s) shall remove all remaining waste materials, rubbish, Trade Contractor(s)'s construction equipment, tools, machinery, and surplus materials and shall leave the Work in a clean and usable condition, satisfactory to the Consultant and the Owner. If the Trade Contractor(s) fails to clean up as provided in the Contract Documents, the Owner and the Construction Manager may perform the cleaning tasks and charge the cost to the Trade Contractor(s).

ARTICLE 47 - POINTS OF REFERENCE

47.1 The Trade Contractor(s) shall carefully preserve bench marks, reference points and stakes, and in case of willful or careless destruction, the Trade Contractor(s) shall be charged with the resulting expense of replacement and shall be responsible for any mistake that may be caused by their loss or disturbance.

ARTICLE 48 - SUBSTITUTION - MATERIALS AND EQUIPMENT

- 48.1 Reference to or the listing of items to be incorporated in the construction without referring to any specific article, device, equipment, product, material, fixture, patented process, form, method or type of construction, or by name, make, trade name, or catalog number shall be interpreted as establishing the general intent of the Contract and the general standard of quality for that item.
- 48.2 Specific references in the Contract Documents to any article, device, equipment, product, material, fixture, patented process, form, method or type of construction, or by name, make, trade name, or catalog number, with the words "or equal", shall be interpreted as establishing a minimum standard of quality, and shall not be construed as limiting competition.
- 48.2.1 Substitution of other equipment and materials as "or equal" to items named in the specifications will be allowed provided the proposed substitution is approved by the Consultant and will perform the functions called for by the general design, be similar and of equal quality to that specified and be suited to the same use and capable of performing the same function of that specified. The Trade Contractor(s) has the burden to prove equality of any substitution requested.
- 48.3 Specific references in the Contract Documents to any article, device, equipment, product, material, fixture, patented process, form, method or type of construction, or by name, make, trade name, or catalog number, without the words "or equal", shall be interpreted as defining an item or source that has after careful consideration been determined by the University as necessary to be compliant with, and/or to function properly within, the University operational system. No substitutions will be allowed.
- 48.3.1 In the event the Contract Documents contain specific reference to two or more items as described in Article 48.3, any of those listed will be acceptable.
- 48.4 Substitution of equipment and materials previously submitted by the Trade Contractor(s) and

approved by the Consultant will be considered only for the following reasons:

- 48.4.1 Unavailability of the materials or equipment due to conditions beyond the control of the supplier.
- 48.4.2 Inability of the supplier to meet Contract Schedule.
- 48.4.3 Technical noncompliance to specifications.
- 48.5 In substituting materials or equipment, the Trade Contractor(s) assumes responsibility for any changes in systems or modifications required in adjacent or related work to accommodate such substitutions, despite consultant approval, and all costs associated with the substitution shall be the responsibility of the Trade Contractor(s). The Consultant shall be reimbursed by the Trade Contractor(s) for any architectural or engineering revisions required as the result of such substitutions.
- 48.6 Inclusion of a certain make or type of materials or equipment in the Trade Contractor(s)'s bid proposal shall not obligate the Owner to accept such materials or equipment if they do not meet the requirements of the Contract Documents and any such substitutions in the preparation of the bid without written approval shall be at the sole risk of the Trade Contractor(s).

ARTICLE 49 - TEST AND INSPECTION

- 49.1 Regulatory agencies of the government having jurisdiction may require any Work to be inspected, tested or approved. The Trade Contractor(s) shall assume full responsibility therefore, pay all costs in connection therewith, unless otherwise noted, and furnish the Consultant the required certificates of inspection, testing or approval.
- 49.2 The Trade Contractor(s) shall give the Consultant (via the Construction Manager) timely notice of readiness of the Work for all inspections, tests or approvals.
- 49.3 The technical specifications may indicate specific testing requirements to be performed by the Trade Contractor(s). Unless otherwise provided in the Contract Documents, the cost of all such testing shall be the responsibility of the Trade Contractor(s). Testing shall be completed using a testing facility or laboratory approved by the Owner.
- 49.4 The costs of all inspection fees as may be required to construct and occupy the Work shall be the responsibility of the Trade Contractor(s).

ARTICLE 50 - WARRANTY

50.1 The Trade Contractor(s) warrants to the Owner and the Consultant that all materials and equipment furnished under this Contract shall be new and in accordance with the requirements of the Contract Documents, and that all Work shall be of good quality, free from faults and defects and in conformance with the Contract Documents. If required by the Consultant or the Owner, the Trade Contractor(s) shall furnish satisfactory evidence as to the kind and quality of materials and equipment. If the Trade Contractor(s) requests approval of a substitution of material or equipment, the Trade Contractor(s) warrants that such installation, construction, material, or equipment will equally perform the function for which the original material or equipment was specified. The Trade Contractor(s) explicitly warrants the merchantability, the fitness for a particular purpose, and quality of all substituted items in addition to any warranty given by the manufacturer and/or supplier. Approval of any such substitution is understood to rely on such warrant of performance. Prior to the Substantial Completion inspection, the Trade Contractor(s) shall deliver to the Consultant all warranties and operating instructions required under the Contract or to which the Trade Contractor(s) is entitled from manufacturers, suppliers, and Sub-contractors. All warranties for products and materials incorporated into the Work shall begin on the date of Substantial Completion. The warranty provided in this Article 50 shall be in addition to and not a limitation of any other warranty or remedy required by law or by the Contract Documents, and such warranty shall be interpreted to require the Trade Contractor(s) to replace defective material and equipment and reexecute defective Work which is disclosed to the Trade Contractor(s) by or on behalf of the Owner within a period of one (1) year after Substantial Completion of the entire Work in addition to other warranty obligations beyond one year from Substantial Completion as provided for by law or by the Contract Documents.

- 50.2 Neither the final payment, any provision in the Contract Documents nor partial or entire use or occupancy of the premises by the Owner shall constitute an acceptance of Work not done in accordance with Contract Documents or relieve the Trade Contractor(s) or its Sureties of liability with respect to any warranties or responsibilities for faulty materials and workmanship. The Trade Contractor(s) or its sureties shall remedy any defects in Work and any resulting damage to Work at the Trade Contractor(s)'s own expense. The Trade Contractor(s) shall be liable for correction of all damage resulting from defective Work. If the Trade Contractor(s) fails to remedy any defects or damage, the Owner may correct Work or repair damages and the cost and expense incurred in such event shall be paid by or be recoverable from the Trade Contractor(s) or the surety. The Owner will give notice of observed defects with reasonable promptness.
- 50.3 The Trade Contractor(s) shall guarantee that labor, material, and equipment will be free of defects for a period of one (1) year from the date shown on the Certificate of Substantial Completion unless special conditions or additional warranty periods are required by the contract pursuant to Article 23 in addition to warranty obligations which extend beyond one year from Substantial Completion. The Owner will give notice of observed defects with reasonable promptness. Expendable items and wear from ordinary use are excluded from this warranty.
- 50.4 Should the Trade Contractor(s) be required to perform tests that must be delayed due to climate conditions, it is understood that such tests will be accomplished by the Trade Contractor(s) at the earliest possible date with provisions of the general warranty beginning upon satisfactory completion of said test. The responsibility of the Trade Contractor(s) under this Article will not be abrogated if the Owner should elect to initiate final payment. If the Owner initiates final payment, consent of Trade Contractor(s)'s surety acknowledging that Work not yet tested is required. The Trade Contractor(s) shall warrant that the entire Project will conform to the Contract Documents.
- 50.5 In addition to the foregoing, the Trade Contractor(s) shall warrant for a period of one (1) year that all buildings and other improvements constructed as a part of the Work shall be watertight and leak proof at every point and in every area. The Trade Contractor(s) shall, immediately upon notification by or on behalf of the Owner of water penetration, determine the source of water penetration and, at the Trade Contractor(s)'s expense, (a) do any work necessary to make such buildings or improvements watertight and (b) repair and replace any other damaged material, finishes and furnishings damaged as a result of such water penetration and return the buildings or other improvements to their original condition.
- The Trade Contractor(s) shall address and resolve to the Owner's satisfaction any warranty claims made by or on behalf of the Owner during the above described warranty period and all repairs and replacements made by the Trade Contractor(s) pursuant to this Article 50 shall be warranted by the Trade Contractor(s), on the terms set forth in this Article 50, for a period of time commencing upon the completion of such repairs and replacements and ending on the later of (a) the expiration of the one (1) year warranty period provided for above or (b) six (6) months after the date such repair or replacement is completed.
- All costs, attorney's fees and expenses incurred by the Owner as a result of the Trade Contractor(s)'s failure to honor any warranty for the Work shall be paid by or recoverable from the Trade Contractor(s).

ARTICLE 51 - PREVAILING WAGE LAW REQUIREMENTS (NO LONGER USED AS OF 1/9/17)

ARTICLE 52 - APPRENTICES

52.1 Apprentices (for all classifications of work) shall be permitted to work only under an apprenticeship agreement approved by the Kentucky Supervisor of Apprenticeship and by the Kentucky Apprenticeship and Training, United States Department of Labor.

ARTICLE 53 - GOVERNING LAW

53.1 This Contract and all issues and disputes arising out of this Contract shall be governed by, construed and enforced in accordance with the laws of the Commonwealth of Kentucky without consideration of its conflicts of laws principles.

ARTICLE 54 - NONDISCRIMINATION IN EMPLOYMENT

- 54.1 During the performance of the Contract, the Trade Contractor(s) agrees as follows:
- 54.1.1 The Trade Contractor(s) will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, national origin, or disability in employment. The Construction Manager will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, age, national origin, or disability in employment. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Trade Contractor(s) agrees to post in conspicuous places available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- 54.1.2 The Trade Contractor(s) will, in all solicitations or advertisements for employees placed by or on behalf of the Trade Contractor(s); state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, national origin or disability in employment.
- 54.1.3 The Trade Contractor(s) will send to each labor union or representatives of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representatives of the Trade Contractor(s)'s commitments under this Article, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 54.2 Failure to comply with the above nondiscrimination clause constitutes a material breach of Contract.

ARTICLE 55 - AFFIRMATIVE ACTION; REPORTING REQUIREMENTS

- 55.1 The Construction Manager and any Sub-contractor is exempt from any affirmative action or reporting requirements, under the Kentucky Equal Employment Opportunity Act of 1978, KRS 45.550 to KRS 45.640 "The Act", if any of the following conditions are applicable:
- 55.1.1 The Trade Contract awarded is in the amount of two hundred and fifty thousand dollars (\$250,000.00) or less, and the amount of the Trade Contract is not a subterfuge to avoid compliance with the provisions of the Act;
- 55.1.2 The Construction Manager or Sub-contractor utilizes the services of fewer than eight (8) employees during the course of the Contract;
- 55.1.3 The Construction Manager or Sub-contractor employs only family members or relatives;
- 55.1.4 The Construction Manager or Sub-contractor employs only persons having a direct ownership interest in the business and such interest is not a subterfuge to avoid compliance with the provisions of The Act.
- 55.2 The Construction Manager and any Sub-contractor, not otherwise exempted, shall:
- 55.2.1 For the length of the Contract, hire DBE's from within the drawing area to satisfy the agreed upon goals and timetables. Should the union with which the Trade Contractor(s) or Sub-contractor have collective bargaining agreements be unwilling to provide sufficient DBE's to satisfy the agreed upon goals and timetables, the Trade Contractor(s) and Sub-contractors shall hire DBE's from other sources within the drawing area;
- 55.2.2 Diverse Business Enterprises (DBE) consist of minority, women, disabled, veteran and disabled

veteran owned business firms that are at least fifty-one percent owned and operated by an individual(s) of the aforementioned categories. Also included in this category are disabled business enterprises and non-profit work centers for the blind and severely disabled. MBE, WBE, Veterans, Disabled Veterans and Disabled make up Diverse Business Enterprises (DBE)

- 55.2.3 The equal employment provisions of The Act may be met in part by the Trade Contractor(s) contracting to a DBE contractor or Sub-contractor. A DBE contractor, or Sub-contractor shall mean a business established under the definition of a DBE in Article 55.2.1
- 55.2.4 The Trade Contractor(s) shall, for the length of the Contract, furnish such information as required by The Act and by such rules, regulations and orders issued pursuant thereto and will permit access by the contracting agency and the department to all books and records pertaining to its employment practices and Work sites for purposes of investigation to ascertain compliance with The Act and such rules, regulations and orders issued pursuant thereto.
- 55.3 If the Trade Contractor(s) is found to have committed an unlawful practice against a provision of The Act during the course of performing under this Contract, a Trade Contract or a subcontract covered under The Act, the Owner may cancel or terminate the Contract, conditioned upon a program for future compliance approved by the Owner. The Owner may also declare such Trade Contractor(s) ineligible to submit proposals on further contracts until such time as the Trade Contractor(s) complies in full with the requirements of The Act.
- Any provisions of The Act notwithstanding, the Trade Contractor(s) shall not be required to terminate an existing employee, upon proof that employee was employed prior to the date of the Contract, nor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.

END OF DOCUMENT

UNIVERSITY OF KENTUCKY SPECIAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION BY A CONSTRUCTION MANAGER AT RISK

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ARTICLE 01 GENERAL INFORMATION

- 1.1 These Special Conditions are intended to modify, supplement, or delete from, applicable Articles of the General Conditions.
- 1.2 Where any Article of the General Conditions is supplemented by these Special Conditions, the Article shall remain in effect and the supplement shall be added thereto.
- 1.3 Where Special Conditions conflict with General Conditions, provisions of the Special Conditions take precedence.

ARTICLE 02 PERMITS AND FEES

The Lexington Fayette Urban County Government (LFUCG) Sewer Tap Fee shall be secured and paid for by the Construction manager. The sewer tap fee is for all projects, regardless of type, is presently calculated by the LFUCG and is based on \$_0.842___per square foot.

ARTICLE 03 (NOT USED)

ARTICLE 04 CONSULTANT

4.1 Wherever in these Contract Documents reference is made to the Consultant, it shall be understood to mean <u>BHDP Architecture and their Sub-consultants</u> their duly authorized representatives. (See Article 2 of the General Conditions.)

ARTICLE 05 GEOTECHNICAL REPORT

5.1 No subsurface or geotechnical survey information is available at this time. However, one will be performed by Terracon and be made available to the successful Construction manager.

ARTICLE 06 TIME FOR COMPLETION

- 6.1 The time for Substantial Completion (as further defined in Article 1 of the General Conditions) for each phase of Work shall be as stipulated below and as specified in the Work Order letter, and Final Completion for each phase shall be 30 days thereafter.
- Phase 1: Scope of this work to be determined through design. Planned start of construction June 20, 2024, with a target substantial completion March 2, 2026.
- Phase II: Scope of this work to be determined through design. Planned start of construction June 20, 2024, with a target substantial completion December 14, 2026.

ARTICLE 07 LIQUIDATED DAMAGES

- 7.1 Should the Trade Contractor(s) fail to achieve Substantial Completion of the Work under this Contract on or before the date stipulated for Substantial Completion (or such later date as may result from extensions in the Contract Time granted by the Owner), he agrees that the Owner is entitled to, and shall pay the Owner as liquidated damages the sum of Two thousand five hundred and eighty Dollars (\$2,580.00) for each consecutive calendar day that Substantial Completion has not been met. See Article 3 of the Agreement.
- 7.2 Should the Trade Contractor(s) fail to achieve Final Completion of the Work under this Contract on or before the date stipulated for Final Completion (or such later date as may result from extensions in the Contract Time granted by the Owner), he agrees that the Owner is entitled to, and shall pay the Owner as liquidated damages the sum of One thousand five hundred and ninety Dollars (\$1,590.00) for each consecutive calendar day until Final Completion is reached. See Article 3 of the Agreement.

ARTICLE 08 SUBMITTALS AND SHOP DRAWINGS

- 8.1 SUBMITTALS GENERAL
- 8.1.1 The Trade Contractor(s) shall submit each set of Shop Drawings, product data, samples, and test and/or certification reports and samples as a separate item in <u>UK E-Communication</u>.
- 8.1.2 All sample selections for color shall be submitted for approval at the same time. Color selections shall not be submitted individually.
- 8.1.3 Any deviation from the Contract Documents shall be noted in detail on the transmittal form comment section and additionally throughout the submittal.
- 8.1.4 All submittals are to be reviewed by the Construction Manager for compliance with the Contract Documents before submission for approval. All submittals are to be initiated and stamped by the Trade Contractor(s). Submittals made directly to the Consultant by sub-contractors, manufacturers or suppliers will not be accepted or reviewed.
- 8.1.5 Re-submittals shall conspicuously note all changes from earlier submissions. Special notation by the Trade Contractor(s) shall be made to any changes other than those made in response to the Consultant's review.
- 8.1.6 Manufacturers shall, when requested by the Consultant, submit test reports prepared by reputable firms or laboratories certifying as to performance, operation, construction, wearability, etc., to support claims made by the manufacturer of the equipment or materials proposed for inclusion in the Work. Trade Contractor(s) shall

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also submit a list of three (3) installations where said equipment or materials have been in service for a minimum of five (5) years.

8.2 SUBMISSIONS - REVIEW

- 8.2.1 Review of submittals is only for compliance with the design concept and the contract documents. THE CONSULTANT SHALL NOT BE RESPONSIBLE FOR CHECKING DEVIATIONS FROM CONTRACT DOCUMENT REQUIREMENTS OR CHANGES FROM EARLIER SUBMISSIONS NOT SPECIFICALLY NOTED.
- 8.2.2 The following shall be verified prior to making submittals:

Field Measurements, Field Construction Criteria, Catalog numbers and similar data, Quantities and Capacities, and Compliance with requirements, including verification of all dimensions,

- 8.2.3 Review Stamp designations shall be as follows:
- 8.2.3.1 "NET = No Exceptions Taken": Proceed with the Work, no corrections needed.

8.2.3.2

"FC= Furnish as Corrected": Proceed with the Work, noting the corrections/conditions of the approval.

- 8.2.3.3 "RR = Revise and Resubmit": Do not proceed with the Work, as the submittal does not comply with the Contract Documents. Revisions to the submittal are required for approval. On projects utilizing UK E-Communication, "Send Back a Step" is used in lieu of "Revise and Resubmit"
- 8.2.3.4 "R = rejected": Do not proceed with the Work, the submittal is rejected.
- 8.2.3.4 "NR=Not reviewed.: Submittal was not required and thus not reviewed

8.3 SUBMISSIONS - SPECIAL PROVISIONS

- 8.3.1 In making a submittal, the Trade Contractor(s) shall be deemed to be making the following representations:
- 8.3.1.1 The Trade Contractor(s) understands and agrees that he shall bear full responsibility for the products furnished. The Trade Contractor(s) expressly warrants that products described in the attached submittal will be usable and that they conform to the Contract requirements unless specifically noted otherwise.
- 8.3.1.2 The Trade Contractor(s) understands and agrees that, without assuming design responsibility, he expressly warrants that products described in the attached submittal are

capable of being used in accordance with the intent of the design documents and that they conform to the Contract requirements unless specifically noted otherwise.

8.3.1.3 The Trade Contractor(s) acknowledges that the Owner will rely on the skill, judgment, and integrity of the Construction Manager as to conformance requirements and subsequent usability.

8.4 SHOP DRAWING AND PROCUREMENT SUBMITTAL LOG

- 8.4.1 The Construction Manager, within ten (10) days after the Pre-Construction meeting, shall begin uploading submittals using UK E-Communication®, to generate a log fixing the dates for submission of Shop Drawings, special order material items, certifications, guarantees, and any other items required to be submitted to the Consultant for review, approval or acceptance. Projects not utilizing UK E-Communication® will submit a Shop Drawing Log provided by the Owner during the Pre-Construction Meeting.
- 8.4.2 The log shall track all submittals to date. The updated log shall then be reviewed and discussed at each progress meeting to determine items that may impact the construction schedule.

8.5 Shop Drawings

- 8.5.1 The Trade Contractor(s) shall review, approve, and submit Shop Drawings to the Construction Manager (and therefore Consultant), in accordance with the Consultant's Shop Drawing & Procurement Submittal Log or UK E-Communication®, as herein detailed. By approving and submitting Shop Drawings, the Trade Contractor(s) represents that he has determined and verified all materials, field measurements, and field construction criteria related thereto, or will do so, and that he has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.
- 8.5.2 The Trade Contractor(s) shall submit Shop Drawings required for the Work and the Consultant will review and take appropriate action. The review and approval shall be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. The approval of a separate item will not indicate approval of the assembly in which the item functions.
- 8.5.3 The Trade Contractor(s) shall make any corrections required by the Consultant for compliance to the Contract and shall return the required number of corrected copies of Shop Drawings and resubmit new samples until approved. The Trade Contractor(s) shall direct specific attention, in writing, or on resubmitted Shop Drawings, to revisions other than the corrections called for by the Consultant on previous submissions. The Trade Contractor(s) stamp of approval on any shop drawing or sample shall constitute a representation to Owner and Design Consultant that the Trade Contractor(s) has either determined and verified all quantities, dimensions, field construction

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criteria, materials, catalog numbers, and similar date, or he assumes full responsibility for doing so, and that he has reviewed or coordinated each shop drawing or sample with the requirements of the Work and the Contract Documents.

- 8.5.4 Where a shop drawing or sample submission is required by the specifications, no related Work shall be commenced until the submission has been approved by the Design Consultant. A copy of each approved shop drawing and each approved sample shall be kept in good order by the Construction Manager at the site and shall be available to the Consultant.
- 8.5.5 The Consultant's approval of Shop Drawings or samples shall not relieve the Trade Contractor(s) from his responsibility for any deviations from the requirements of the Contract Documents unless the Trade Contractor(s) has in writing called the Consultant's attention to such deviation at the time of submission and the Consultant has given written approval to the specific deviation. Any approval by the Consultant shall not relieve the Trade Contractor(s) from responsibility for errors or omissions in the Shop Drawings.
- 8.5.6 All submittals are to be submitted electronically by the contractor. Shop Drawings submitted through UK E-Communication® shall be scanned and submitted in color. Mark-ups must be made using visible color when printed. Workflow in UK E-Communication® will be established during the workflow meeting. Each individual Shop Drawing shall have its respective specification number and description highlighted.
- 8.5.7 Where Shop Drawings include fire alarm, communication systems schematics, sprinkler systems, etc., a sepia of each drawing shall be submitted to the Consultant as part of the "Record" set of drawings.

8.6 SUBMISSIONS - SAMPLES

- 8.6.1 Office samples shall be of sufficient size and quantity to clearly illustrate functional characteristics of the product with integrally related parts and attachment devices, and full range of color, texture, and pattern.
- 8.6.2 Products shall not be used until the sample has been submitted to and approved by the Consultant.
- 8.6.3 A minimum of two (3) samples are required to be submitted to the Consultant for review and approval and will be distributed as follows:
 - a) One to be retained by the University;
 - b) One to be retained by the Design Consultant;
 - c) One to be kept in the trailer on the jobsite for reference;
 - d) An additional sample or samples may be submitted, at the Trade Contractor(s) option, for distribution to a third party.

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8.6.4 Field samples (block, brick, etc.) of materials to be constructed at the site shall be submitted for review as required by the individual section of the Contract Documents.

8.7 SUBMISSIONS - OPERATION AND MAINTENANCE MANUALS

- 8.7.1 The University requires a minimum of one (1) digital copy of the final installation, training, operation, maintenance, and repair manuals to be turned over to the Owner's Project Manager and approved for content by the Consultant by or before the time construction is 75% complete. Projects utilizing e-Communication will create digital copy from the Document Library (Closeouts) in e-Communication. Operation and maintenance manuals and materials, where specified, for mechanical and electrical equipment and for operating items other than mechanical and electrical equipment must be submitted in PDF format with a separate PDF file for each item. In the event the Trade Contractor(s) fails to provide these required electronic submittals prior to reaching seventy-five (75%) completion, it is agreed that the Owner at its sole discretion may deduct from the current and subsequent Applications for Payment an amount deemed by the Owner to be sufficient to encourage prompt compliance with this contractual requirement, until such time as acceptable O&M manuals are received.
- 8.7.2 Manuals provided must be of sufficient detail to enable the Owner or others to install, calibrate, train, operate, maintain, service and repair every system, subsystem, and/or piece of equipment installed on or as part of this Contract. Manuals submitted through UK E-Communication® shall be scanned and submitted in color. Mark-ups must be made using visible color when printed. Each manual must contain:
- 8.7.2.1 Project Title, Project number, Location, dates of submittals, names, addresses and phone number for the Consultant, Construction Manager, and Construction Manager's Sub-contractors;
- 8.7.2.2 An Equipment Index that includes vendors' names, addresses, and telephone numbers for all equipment purchased on the Project;
- 8.7.2.3 Emergency instructions with phone numbers and names of contact persons on warranty items shall be uploaded to UK E-Communication®;
- 8.7.2.4 Copies of each system's air balancing record and each system's hydronic balancing record (1) physical copy and (1) digital copy in eCommunication;
- 8.7.2.5 Copy of valve tag list;
- 8.7.2.6 Copy of As-Built temperature control system drawings and components and sequence of operation;
- 8.7.2.7 Original copies of the following provided by the manufacturer:

Installation manuals

Training manuals

Service Manual

Parts list

Instruction Manuals

Calibration manuals

Operation manuals

Repair manuals

Reviewed Shop Wire list

Drawings Keying Bit List

- 8.7.2.8 Any Computer, Micro controller, and/or Microprocessor equipped equipment installed shall be provided with source code copies of all software and firmware (prom, eprom, rom, other) supplied on this Contract; and
- 8.7.2.9 Copies of all inspection and guarantee certificates, manufacturers' warranties with the University of Kentucky listed as the Owner for all equipment provided and/or installed.
- **8.7.2.10** Refer to the Official Design Standards **017800S01 Closeout Submittals** for full details $\frac{\text{https://www.uky.edu/cpmd/download/file/fid/78986}}{\text{https://www.uky.edu/cpmd/download/file/fid/78986}}$
- 8.7.2.11 If the O&M manuals from any one vendor covering several different model numbers, the model used on the Project must be highlighted.
- 8.7.2.12 Included in the front of the "Operation and Maintenance Manual" shall be a copy of the Interior and Exterior Finish plan and Schedule listing all finish materials, the manufacturer, the finish color, and the manufacturer's paint number.
- 8.7.2.13 Photograph album containing digital images (.pdf format) showing buried utilities and concealed items shall be included.
- 8.8 SUBMISSIONS AS BUILT SET OF DRAWINGS
- 8.8.1 The Trade Contractor(s) shall submit one (1) electronic copy of As Built set of drawings in PDF format indicating all deviations of construction as originally specified in the Contract Documents. These As-Built Drawings will compile information from the Construction Manager as well as all Sub-contractors. The Trade Contractor(s) shall provide a qualified representative to update the As Built set of drawings as construction progresses. As-Builts submitted through UK E-Communication® shall be scanned and submitted in color. Mark-ups must be made using visible color when printed.
- 8.8.2 The Trade Contractor(s) shall provide and utilize a camera to photograph the installation of buried utilities and concealed items. The Trade Contractor(s) shall provide digital images (.pdf format), which shall be submitted as part of the Operation and Maintenance Manuals submission.

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8.8.3 Approval of the Final Payment request will be contingent upon compliance with these provisions. The Construction Manager's As – Built set of drawings shall be delivered to the Consultant at their completion so that the Consultant may make any changes on the original contract drawings.

8.9 SUBMISSIONS - SAP EQUIPMENT LIST

- 8.9.1 Trade Contractor(s) shall complete equipment list for use with SAP software in electronic spreadsheet format. Data is to be provided in Uniformat format with the information being provided for individual locations as noted in Attachment A Uniformat Component List. Information is to be provided as follows (MCPPD or CPPD will provide blank Excel spreadsheets in electronic form for use in compiling the information, if desired)
- 8.9.2 All materials that require preventative maintenance (PM) are listed as in Attachment A. The equipment list is to be provided in Excel spreadsheet format and is to include the information listed in Attachment B
- 8.9.3 Required maintenance procedure listing each work task in Excel spreadsheet format as shown in Attachment C.
- 8.9.4 Required frequency of maintenance for the work tasks outlined in 8.9.3 above and included in the Attachment C spreadsheet
- 8.9.5 Listing of maintenance parts and items: i.e. filters, lubricants, etc. for each work task listed in 8.9.3 above.

8.10 SUBMISSIONS – MAINTENANCE MATERIALS

8.10.1 If specified, Maintenance/Replacement Materials, Spare Parts, and special maintenance tools for proper maintenance shall be provided by the CM At Risk.

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ARTICLE 8.9 Attachment A – Uniformat Component List

SAP Object Type No.	Component Name				
D5030.0232	Access Control Panel				
D3050.0110	Air Conditioning Comp Rm Unit				
D3030.0610	Air Conditioning Compressor				
D3030.0620	Air Conditioning Condensing Unit				
D3050.0120	Air Conditioning Pkg Rooftop Unit				
D3050.0130	Air Conditioning Pkg Terminal Unt				
D3030.0630	Air Conditioning Split System				
D3050.0140	Air Conditioning Unit Package				
D3050.0150	Air Conditioning Unit Window				
D3050.0710	Air Curtain / Heater				
D2090.0120	Air Dryer				
D3010.0443	Air Eliminator				
D3040.0110	Air Handling Unit				
D5090.0220	Auto Transfer Switch - Electrical				
	Automatic Door Operator				
D2020.0330	Backflow Preventers				
D3020.0110	Boiler, Steam System				
D5030.0241	Camera				
D5030.0231	Card Access System				
D3030.0300	Chiller, Reciprocate				
E1090.0250	Chutes & Collectors				
D5010.0510	Circuit Breaker Panel				
F1020.0230	Clean Rooms				
F1020.0240	Cold Storage Rooms				
D2090.0110	Compressor, Air				
D3060.0250	Controls, Building System				
E1090.0317	Cooler, Commercial				
D3030.0510	Cooling Tower, Packaged				
D2010.1300	Copper Silver Ion Equipment				
D4090.0510	Dampers Fire				
D4090.0500	Dampers Fire/Smoke				
D4090.0520	Dampers Smoke				
D3050.0400	Dehumidifiers				
D2090.0200	Deionized Water System				
E1090.0391	Dishwasher, Commercial				
B2030.0160	Door, Auto Entrance				
B2030.0100	Door, Exterior Entrance				

C1020.0330	Door, Fire Separate
C1020.0330	Door, Smoke Partition
D2010.0800	Drinking Fountain
D5010.0800	Electric Switchboard
E1030.0310	Elevator, Dock Leveler
D1090.0120	Elevator, Dumbwait Electric
D1090.0120	Elevator, Dumbwait Electric Elevator, Dumbwait Hydraulic
D1090.0130	Elevator, Hydraulic Freight
D1010.0140	Elevator, Hydraulic Preight Elevator, Hydraulic Passenger
D1010.0120	Elevator, Platform Lift
D1010.0230	
	Elevator, Sidewalk Lift
D1010.0130	Elevator, Traction Freight
D1010.0110	Elevator, Traction Passenger
D1010.0220	Elevator, Wheelchair Lift
D2010.1100	Emergency Eyewash
D2010.1000	Emergency Eyewash/Shower
D5090.0810	Emergency Generator
D2010.1200	Emergency Shower
D3050.0600	Energy Recovery Unit
F1020.0260	Environmental Unit
D3040.0120	Fan
D3050.0520	Fan Coil Unit
D3040.0122	Fan, Axial
D3040.0121	Fan, Centrifugal
D3040.0410	Fan, Exhaust
D5030.0141	Fire Alarm Annunciator
D5030.0134	Fire Alarm AV Devices
D5030.0139	Fire Alarm Door Holder
D5030.0144	Fire Alarm Duct Detector
D5030.0133	Fire Alarm Heat Detectors
D5030.0136	Fire Alarm Horns
D5030.0131	Fire Alarm Panel
D5030.0135	Fire Alarm Pull Station
D5030.0137	Fire Alarm Signal Speaker
D5030.0132	Fire Alarm Smoke Detectors
D5030.0130	Fire Alarm System
D5030.0138	Fire Alarm Visual Signal Dev
D4030.0200	Fire Blanket & Cabinet
D4030.0100	Fire Extinguisher Cabinet
D4030.0300	Fire Extinguisher Wheeled
D4090.0300	Fire Extinguishing System, Clean

D4090.0200	Fire Extinguishing System, CO2			
D4090.0400	Fire Extinguishing System, Dry Chemical			
D4090.0100	Fire Extinguishing System, Foam			
D4090.0000	Fire Extinguishing System, Other			
G3010.0310	ire Hydrant			
E1090.0330	Food Cooking Equipment			
E1090.0310	Food Stor/Prep Equipment			
D2090.0400	Fuel Oil System			
D3040.0460	Fume Hood System			
D3020.0310	Furnaces			
D2030.0260	Grease Trap			
D3050.0580	Heat Exchanger			
D2020.0260	Heater Domestic Water			
D3050.0521	Heater, Cabinet Unit			
D3050.0581	Heater, Cast Iron Radiator			
D3050.0530	Heater, Fin Tube Radation			
D3050.0540	Heater, Induction Unit			
D3050.0560	Heater, Unit			
D3050.0570	Heater, Unit Vent			
F1040.0700	Heliport System			
E1090.0340	Hood/Vent Equip			
D3050.0300	Humidifier			
E1090.0380	Ice Machines			
D5020.0330	Light, Emergency Exterior			
D5020.0230	Light, Emergency Interior			
D5020.0231	Light, Exit			
E1020.0831	Medical Air Compressor			
E1020.0900	Medical Gas Alarm			
E1020.1000	Medical Gas Area Alarm			
E1020.0840	Medical Gas Auto Pressure Switch			
E1020.0834	Medical Gas Manifold			
E1020.0835	Medical Gas N2O			
E1020.0839	Medical Gas Outlet			
E1020.0837	Medical Gas Shut-off Valve			
E1020.0830	Medical Gas System			
E1020.0838	Medical Nitrogen			
E1020.0810	Medical Sterilizer Equipment			
E1020.0832	Medical Vacuum Pump			
D5010.0711	Motor Control Center			
D5010.0720	Motor, Electric			
D5030.0431	Nurse Call System			

E1090.0210	Packaged Incinerator
D3010.0550	Packaged Solar Equipment
D5030.0420	Paging Systems
C1010.0180	Partition Fire Rated
C1010.0190	Partition, Smoke
D1090.0141	Pneumatic Tube Blower
D1090.0142	Pneumatic Tube Station
D1090.0140	Pneumatic Tube System
D1090.0143	Pneumatic Tube Transfer Unit
D3010.0430	Pump
D3030.0710	Pump, Air Source Heat
D3010.0432	Pump, Chilled Water
D2020.0222	Pump, Domestic Hot Water Recirculation
D2020.0221	Pump, Domestic Water Booster
D4010.0111	Pump, Fire
D3010.0431	Pump, Heating Water
D4010.0112	Pump, Jockey Fire
D3030.0720	Pump, Rooftop Heat
D3010.0433	Pump, Steam
D2040.0270	Pump, Sump
D2030.0330	Pump, Waste
D2020.0220	Pump, Water Booster
D3030.0730	Pump, Water Heat
E1090.0315	Refrigerator/Freezer, Commercial
D3040.0123	Return Air Fan
D2090.1200	Reverse Osmosis System
D3030.0420	Scroll Chiller
D4010.0300	Sprinkler, Combo System
D4010.0400	Sprinkler, Deluge System
D4010.0200	Sprinkler, Dry-Pipe
D4020.0100	Sprinkler, Standpipe
D4010.0100	Sprinkler, Wet-Pipe
D3050.0310	Steam Generator
D5010.0840	Switchgear, Medium Voltage
D3010.0441	Tank, Expansion Compressor
D2020.0310	Tank, Expansion Domestic
D2020.0320	Tank, Expansion Reheat
D2090.0410	Tank, Fuel Oil
D3010.0444	Tank, Steam Flash
D5010.0210	Transformer, Low-Volt 2nd
D5010.0410	Transformer, Low-Volt Inter

D5010.0110	Transformer, Main			
D3020.0150	Trap, Steam			
D5090.0110	UPS - Computer			
D5090.0120	UPS - Other			
D2090.1310	Vacuum Pump			
D3010.0435	VFD - Pump			
D3040.0190	VFD HVAC			
D5010.0850	VFD/VSD			
E1090.0316	Walk-in-Refrigerator			
D2090.0210	Water Softener Equipment			
D3010.0490	Water Treatment Equipment			

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ARTICLE 8.7.3 Attachment B – Equipment List Spreadsheet Data Categories

II.'C	
Uniformat	
Component ID	
Component Name	
Description	
Name	
Equipment No.	MCPPD or CPPD will enter this data
Model No.	data
Room Location	
Room Location	MCPPD or CPPD will enter this
Functional Location	data
Manufacturer	
Supplier	
Installing Contractor	
Serial No.	
Serial 110.	MCPPD or CPPD will enter this
Main Work Center	data
(20.1.1)	MCPPD or CPPD will enter this
Comments(30 char's)	data MCPPD or CPPD will enter this
Critical	data
	MCPPD or CPPD will enter this
JCAH Code	data
Patient Room?	MCPPD or CPPD will enter this data
Tutient Room.	MCPPD or CPPD will enter this
Vendor ID	data
17 1 T	MCPPD or CPPD will enter this
Vendor Type	data MCPPD or CPPD will enter this
Vendor - Other Info	data
	MCPPD or CPPD will enter this
Equipment Life	data
Area Serviced	
Contains Lead?	
Contains Asbestos?	
Contains PCBs?	
Motor Frame	
Motor Style	
Motor HP	
Motor Phase	
Motor Volts	
Motor RPM	
Fan CFM	
1 1111 01 111	

Fan RPM	
Fan Static	
Fan Type	
Fan RPM 2	
Pump Head	
Pump Inlet	
Pump GPM	
Pump Outlet	
Motor Oper Amps	
Condition	MCPPD or CPPD will enter this data
Disconnect Location	
Motor FLA	
Belts	
Filters	

ARTICLE 8.7.3 Attachment C - Example Preventative Maintenance Procedures

Description	Name	Equipment No.	Frequency	Maintenance Procedure	Maintenance Parts & Items
Air Handling Unit	AHU-1	M-12345	Monthly	Check Belts	
Air Handling Unit	AHU-1	M-12345	Quarterly	Grease bearings	Grease type xyz
Air Handling Unit	AHU-1	M-12345	Annually	Replace Belts	Belt model abc-123
Air Handling Unit	AHU-2	M-98765	Monthly	Check Belts	

The blue highlighted column will be filled in by MCPPD or CPPD.

ARTICLE 09 PLANS, DRAWINGS, AND SPECIFICATIONS

- 9.1 The successful Construction Manager will receive a digital copy (.pdf) sets of plans and specifications. Construction Manager will be required to pay for cost of duplication for all sets required. One official, physically printed, clean copy of the permit set is to be located at the jobsite at all times.
- 9.2 The University will provide a digital copy (.pdf) of the 'Official Contract Documents' book to the successful Construction Manager. One official, physically printed, clean copy of the permit set is to be located at the jobsite at all times.
- 9.3 All drawings, specifications and copies, thereof, prepared by the Consultant, are the property of the University of Kentucky. They are not to be used on other Work.

ARTICLE 10 PROGRESS MEETINGS

10.1 In addition to specific coordination and pre-installation meetings for each element of Work, and other regular Project meetings held for other purposes, progress meetings will be held as outlined at the Preconstruction Meeting. Each entity then involved in planning, coordination or performance of Work shall be properly represented at each progress meeting. The following areas will be covered at each progress meeting: current status of work in place, CM's review of upcoming work (1 month look ahead), schedule status, upcoming outages, new outage requests, shop drawings due from contractors, shop drawings being reviewed, outstanding RFI's, outstanding proposed change orders, change orders, new business, As-Built updated, close-out documents status, defective work in place issues, review "pencil copy" of payment application, safety issues and new business or other issues not covered above.. With regard to schedule status, discuss whether each element of current work is ahead of schedule, on time, or behind schedule in relation with updated progress schedule; determine how behind-schedule Work will be expedited, and secure commitments from entities involved in doing so; discuss whether schedule revisions are required to ensure that current Work and subsequent Work will be

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completed within Contract Time; and review everything of significance which could affect the progress of the Work.

- 10.2 Construction Manager shall prepare and submit at each progress meeting an updated schedule indicating Work completed to date and any needed revisions.
- 10.3 With the express purpose of expediting construction and providing the opportunity for cooperation of affected parties, progress meetings will be held and attended by representatives of:
 - (1) The Owner's Project Manager
 - (2) The Consultant.
 - (3) Construction Manager.
 - (4) Subcontractors.
 - (5) Others requested to attend (as deemed necessary by CPMD).
 - (6) Physical Plant Division Representative
- 10.4 A location near the site will be designated where such progress meetings will be held. Participants will be notified of the dates and times of the meetings by the Consultant.

ARTICLE 11 CRITICAL PATH METHOD (CPM) SCHEDULE

- 11.1 Construction Manager shall prepare Critical Path Method (CPM) type schedules in accordance with General Conditions Article 32 with separate divisions for each major portion of the Work or operation. The schedules submitted for this Project shall be prepared using Primavera P6 scheduling software. If approved by the University, and at the sole discretion of the University, schedules submitted using earlier versions of Primavera scheduling software (Primavera SureTrak or Primavera P3) may be converted to Primavera P6 format by the University for review purposes. However, the University will not be responsible for any inaccuracies that may result from such conversions. All schedule submittals shall include a copy in portable document (.pdf) format as well as a complete copy of the schedule in Primavera P6 electronic file (.xer) format.
- 11.1.1 CPM schedules shall be based on generally accepted good practices for the development of construction schedules including limited use of long activity durations, long total float values or relationships based on leads or lags. Schedules shall include all activities necessary for performance of the work showing logic (sequences, dependencies, etc.) and duration of each activity. The schedules shall provide information for all elements of the Work in sufficient detail to accurately demonstrate the relative importance of each activity to the successful completion of the Project including but not necessarily limited to the following.
 - a) Activities to be performed by the University or the Design Team.
 - b) Activities describing time sensitive submittals and submittal processing.
 - c) Activities describing fabrication and delivery of key materials or equipment.

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- d) Activities to identify equipment start-up and testing, system commissioning, and Owner training.
- e) Activities to identify Owner Furnished /Contractor Installed and Owner Furnished / Owner Installed material or equipment.
- f) Activities to denote all required inspections by the Owner or Design Team, and inspections by state or local agencies including receipt of necessary Certificate(s) of Occupancy.
- g) Activities to identify all dates and durations for major utility outages requiring coordination with the Owner and the Owner's operations.
- h) Activities to identify all contractually mandated constraints. Non-contractual constraints shall not be included in the Initial or Final Baseline schedules without explanation. Non-contractual constraints are for the convenience of the Construction Manager, shall not be a basis for delay claims, and may be temporarily removed by the University when schedules and updates are reviewed.
- i) Software coding of each activity to identify the applicable Phase; area and/or sub area where the work occurs; the trade subcontractor or party responsible for completion of the activity; whether the activity is a design activity, a bidding or procurement activity, a submittal activity, or a construction activity; and whether the activity is potentially weather dependent.
- j) The University may, at its sole discretion, also require that each activity be coded to indicate the section of the Technical Specifications that applies to the work.
- 11.1.2 Schedules shall include divisions for Work to be accomplished remote from the central construction site, (for example, modular or prefabricated units to be constructed off-site, or utilities to the site from outside the construction site such as chilled water, steam, electrical, communications, and fire service). Such Work shall be scheduled so that disruption resulting from construction will be minimized. Start dates and completion dates for utility construction must be maintained and completed in the shortest reasonable time.
- 11.2 An Initial Baseline Schedules shall be submitted to the Consultant and to the Owner within thirty (30) calendar days after award of the first bid Package or trade contract, and shall include detailed information regarding Work to be performed during the first ninety (90) days of the Project as well as milestone dates based on hammock or Level of Effort type activities that identify all major elements of the remainder of the Work. Any necessary revisions to the Initial Baseline Schedule shall be completed prior to submittal of the Final Baseline Schedule.
- 11.3 The Final Critical Path Baseline Schedule shall be submitted to the Consultant and to the Owner within seventy five (75) calendar days after award of the first bid Package or trade contract, shall be consistent with the information contained in the Initial Baseline Schedule prepared in accordance with Article 11.2 above, shall be a complete and comprehensive description of the Construction Manager's plan to complete the Work in accordance with the Contract, shall include all activities necessary to complete the Work, and shall show the complete sequence of construction by activity, with dates for

beginning and completion of each element of construction as well as an indication of whether the activity might reasonably be delayed or impacted by bad weather. Subschedules shall be provided as may be necessary to define critical portions of the entire schedule.

- 11.3.1 If the Project is to be constructed in multiple phases or using multiple Bid Packages, the date for the start of work on each phase of the Project shall be the date on which the University approves the award of the first Trade Contract for work in that phase or Bid Package.
- 11.3.2 A separate schedule including decision dates for selection of finishes and delivery dates for Owner furnished items, if any, shall be provided showing submittal dates for Shop Drawings, product data, and material samples, as appropriate.
- 11.3.3 A separate schedule shall be provided identifying dates and durations for major utility outages requiring coordination with the Owner and the Owner's operations.
- 11.3.4 Activities, including Outages, which require action by or which are the responsibility of, the Owner or the Consultant under the terms of the Contract shall be properly indicated, and the responsible party shall be identified in the CPM schedule.
- 11.4 The Consultant will review schedules only for compliance with the intent of the Contract Documents. Such review shall not relieve the Trade Contractor(s) of any responsibility for compliance with the provisions of the Contract nor shall such review or any review comments constitute an amendment or modification of the Contract requirements. The Trade Contractor(s) shall be solely responsible for the means and methods to be employed to assure constructions proceeds in accordance with the submitted schedule and for identifying all necessary activities, establishing activity sequencing, and assigning activity durations and relationships to assure that the CPM schedule is an accurate and comprehensive description of the plan for the Work.
- 11.5 Updated progress schedules shall be submitted to the Consultant and to the Owner concurrently with each Application for Payment to indicate progress on each remaining activity as of the last working day prior to the date of the submittal and the projected completion date of each activity. Updated CPM schedules shall show the accumulated percentage of completion of each activity, and total percentage of Work completed, as of the data date of the update. Each submittal of an update to the schedule shall include a narrative report that identifies and explains activities modified since the previous submittal, major changes in scope and other identifiable changes, problem areas, anticipated delays, and impact on the schedule, and shall describe corrective action taken or proposed, and its effect. Schedules will be uploaded in UK E-Communication®'s Schedules Item Log.
- 11.6. Submittals shall include a copy in portable document (.pdf) format as well as a complete copy of the schedule in Primavera P6 electronic file (.xer) format along with a transmittal letter and related narrative report.

- 11.7 Copies of updated CPM schedules are to be provided to the job site file and, as appropriate, to subcontractors, suppliers, and other concerned entities, including separate contractors. Recipients are to be instructed to promptly report, in writing, any problems anticipated in meeting the projected dates shown in the schedules.
- 11.8 The processing of all progress payments is contingent upon the submission of an updated CPM schedule. Only payment for bonds and limited Construction Manager mobilization costs will be approved for processing prior to receipt of the Initial and Final Baseline schedules
- 11.9 The processing of all change orders requesting a time extension to the contract is subject to the terms of Article 21 of the General Conditions to this Contract and is contingent upon the submission of a CPM schedule showing that the change order does indeed impact the contractually required completion dates for the Work. Time extensions for Change Orders that do not impact the contractually required completion dates for the Work will not be considered.
- 11.10 All time extensions shall be negotiated and made full, equitable and final, and incorporated in a revised CPM schedule at the time of Change Order issuance. No reservation of rights shall be allowed.
- 11.11 Float available in the schedule at any time shall not be considered for the exclusive use of either party to the contract but will be a resource available to both the Owner and the Construction Manager. No time extensions will be granted for a delay unless the delay impacts the Project critical path as shown in the updated Project schedule most recently submitted to the Owner prior to the event, consumes all available float or contingency time, and extends the Work beyond the then current Contract completion date(s).

ARTICLE 12 WALK-THROUGH

- 12.1 After the "Work Order" is issued but before Work by the Construction Manager is started, a walk-through of the area is required to document the condition of the space, surfaces, or equipment. It is the responsibility of the Trade Contractor(s) to schedule the walk-through with the Owner's Project Manager, the Consultant, and other interested parties.
- 12.2 During the walk-through, Trade Contractor(s) shall identify all damaged surfaces or other defective items that exist prior to construction.
- 12.3 The walk-through shall be attended by Owner's Project Manager, a Representative of the user of the facility, the Trade Contractor(s) and the Consultant
- 12.4 Written documentation of the walk-through is to be provided by the Consultant with copies distributed to all parties. Digital photos will be provided as needed to fully

document found conditions. All parties attending the walk-through agree on the list of damages.

ARTICLE 13 OWNER'S CONSTRUCTION REPRESENTATIVE

The Owner and Consultant may have personnel or representatives on this job that are to have access to the Construction Manager's field office and reasonable office accommodations including a work area, internet, seating, and basic utilities.

ARTICLE 14 FIELD OFFICE

14.1 Construction Manager shall make his own provision for field office for his own personnel and for incidental use by their Subcontractors. Quantity and location are subject to approval of the Consultant and the Owner's Project Manager.

ARTICLE 15 TELEPHONE SERVICE

15.1 Trade Contractor(s) shall arrange through UKIT Communications and Network Systems for installation of on-site phone, internet, and other communications services. Telephone service during the length of construction shall be paid for by the Trade Contractor(s). (Cell phone service in lieu of UKIT Communications and Network Systems phone service may be utilized at Trade Contractor(s) option.)

ARTICLE 16 CONSTRUCTION FENCE

- 16.1 Construction fencing will be designed and erected around job sites where there is a possibility of injury to employees, students or the public. Special precautions must be taken to protect the visually impaired, disabled, children and others using the University facilities. During active excavation/trenching operations, fencing shall be erected to prevent unauthorized entry into the site. All fencing shall comply with the current requirements of the International Building Code except where the following requirements are more stringent.
- 16.1.1 All job site perimeter fencing within 5 feet of a walkway, street, plot line, or public right-of-way shall be 8 feet in height. Perimeter fencing that blocks sidewalks must include signs directing pedestrians to a safe walkway or crosswalk. Contractor shall also provide fencing to protect significant trees that are located on site (See article 56 for additional tree protection requirements).

Signage may be attached to the fence but may also be required to inform pedestrians of sidewalk closures and detours prior to arriving at the closed area. Construction Manager shall provide electrical pedestrian and general lighting along the top rail of the perimeter of the construction site fence to provide a minimum illumination level of 1.5 foot candles. Pedestrian and perimeter fence lighting shall be installed in conduit, raceway, and/or

pathway system properly supported to the perimeter fence. Open or flexible cabling will not be acceptable.

- 16.1.2 All job site perimeter fencing more than 5 feet from a walkway, street, plot line, or public right-of-way shall be a minimum of 6 feet in height unless International Building Code requirements are more restrictive due to the height of the structure and setback.
- 16.1.3 All fencing shall be of a woven material such as chain link or a solid type fence. Fencing shall include gates required for construction operations. Gates shall be lockable with both the Construction Manager's lock, and a lock provided by the Owner. Lock by Owner shall be keyed for the University Best GA key core. All locks to be "daisy-chained" to provide access to the Owner.
- 16.1.4 It shall be the Trade Contractor(s) responsibility to determine the proper quality of materials and methods of installation of the fencing, with the understanding that it must be maintained in good condition, good appearance, rigid, plumb, and safe throughout the construction period. The fence does not have to be new material. The fence is to be erected on fence posts securely anchored in the ground. Provide a top bar or, with prior approval of the Owner, a wire shall be run through the top of the fence and attached to the end posts. A tension control device shall be installed as necessary. Use of sandbags, concrete weights, stakes, etc. to hold fence posts in place are not allowed. Penetrations in pavement or landscape walking surfaces may not be made without the approval of the Owner. Any damage caused by the fence installation shall be repaired in a manner satisfactory to the Owner. When fencing is to remain in place for 6 months or more a green fabric mesh must be provided for the full height and length of the fence. Fabric should be omitted for one section of fencing where blind corners occur or at pedestrian/vehicle intersections.
- 16.1.5 The Trade Contractor(s) shall be responsible for removing and replacing any fence sections and/or posts necessary for access to the site daily. The Construction Manager shall police such conditions to assure the fence and posts are reset in a timely manner and are specifically in place at the close of the working day.
- 16.1.6 If the Trade Contractor(s) fails to comply with the requirements of this Article 16, the Owner may proceed to have the work done and the Trade Contractor(s) shall be charged for the cost of the Work done by unilateral deductive change order.
- 16.1.7 Plastic construction fencing is not acceptable as a perimeter protection fence.

ARTICLE 17 PROJECT SIGN

17.1 The Trade Contractor(s) shall furnish, install, and maintain a Project sign during this Project. This sign shall be 4' x 8' x 3/4" exterior grade plywood mounted on 4"

- x 4" posts. Design shall be as provided by the Owner at a later date and shall include the name of the Owner, Project, Consultant, and Construction Manager.
- 17.2 No signs, except those attached to vehicles or equipment, may be displayed without permission from the Consultant and the Owner's Project Manager. No political signs will be permitted.

ARTICLE 18 PARKING

- 18.1 The University of Kentucky will make available for purchase by the Construction Manager of up to four (4) parking permits. The category of parking permit and location of parking is determined by the Director, Parking and Transportation Services, or a designee. Parking permits may be purchased by the Construction Manager to be used by the Construction Manager and/or the Construction Manager's subcontractors and employees during the construction period. The cost of each permit is based on the prorata annual cost and may be purchased from Parking Services, 721 Press Avenue, after the Contract is executed. Necessary documents required to purchase the passes will be available at the Pre-Construction Conference.
- 18.2 The Director, Parking and Transportation Services, or a designee will determine if parking is available for employees of the Construction Manager and subcontractors in the K lots at Commonwealth Stadium or elsewhere on Campus. The Construction Manager will be given thirty (30) days notice should conditions change that will affect parking at the designated parking area and it is necessary to relocate parking or terminate parking privileges. If parking is available, permits may be purchased from Parking Services, 721 Press Avenue at the appropriate monthly cost.

ARTICLE 19 SANITARY FACILITIES

19.1 At the beginning of the Project, before any Work is started, the Trade Contractor(s) shall furnish, install, and maintain ample sanitary facilities for the workforce. Permanent toilets in the existing building shall not be used during construction of the Project. Drinking water shall be provided from an approved safe source, piped or transported as to be kept clean and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing governing health regulations.

ARTICLE 20 RULES OF MEASUREMENT

- 20.1 Rules of Measurement shall be established by the Consultant in the field. Actual measurement shall be taken in the field. These amounts shall become binding upon the Trade Contractor(s) and be adjusted as before mentioned.
- 20.2 The Trade Contractor(s) shall pay for and coordinate through the Consultant and/or the Owner's Project Manager all associated Work by utility companies including

relocation of utility poles, installation of new street lights, relocation of overhead or underground lines, and any other Work called for on the Plans and in the Specifications.

ARTICLE 21 ALLOWANCES

- 21.1 As stated in the General Conditions to the Contract, the Trade Contractor(s) shall have included in the Contract Amount all costs necessary to complete the Work. Costs based on "allowances" shall be permitted only for objectively quantifiable items and only with the prior written approval of the Owner. No allowances shall have been included in the calculation of the Construction Manager's fixed fee quotation in par. 8.0 of the RFP.
- 21.2 Costs based on allowances may be included in Subcontract bid packages only with the prior written approval of the Owner, and only for objectively quantifiable material items.
- 21.3 Any allowance amounts included in a Subcontract bid package, but not expended for the approved task during the course of the work of that Subcontract, shall be deducted from the Trade Contractor(s) via the Construction Manager's contract by Change Order. Any additional amounts necessary to pay for additional cost of an allowance in a Subcontract bid package shall be funded from the Construction Contingency Fund.
- 21.4 The University of Kentucky has entered into a price contract agreement with Johnson Controls for procurement of fire alarm and security systems. Johnson Controls will provide an allowance for this project which may include Fire Alarm Equipment and Security Equipment, including all required cable/wire, labor to install cable and wire and terminations of Johnson Controls supplied devices and panels. Johnson Controls will be a sub-contractor under a trade contract.
- 21.4.1 The Construction Manager shall include an allowance of \$_____TBD_____for the work by Johnson Controls in the appropriate trade contractor's scope of work.
- 21.4.2 The electrical contractor is to provide and install conduits and back boxes/junction boxes. All conduits will include a pull string. Johnson Controls will furnish and install all fire alarm and security equipment and wiring.

ARTICLE 22 CONSTRUCTION CONTINGENCY FUNDS

- 22.1 The Owner shall include an amount in the Project construction budget not to exceed one percent (1%) of the total cost of the construction, including the Construction Manager's fixed fee, as a Construction Contingency Fund. The following are general / typical categories of changes to the Work that may, with the Owner's prior written specific approval, be funded from this source:
- 22.1.1 Reasonable errors & omissions in the Construction Manager's bidding and scoping processes;

- 22.1.2 Reasonable costs associated with schedule recovery that is not a direct result of the construction managers or a trade contractor's failure to perform;
- 22.1.3. Any costs or expenses incurred by the Construction Manager, for provision of management services necessary to complete the Project in an expeditious and economical manner consistent with the Contract for Construction and the best interests of Owner, that were not included in the Construction Manager's General Conditions Cost as submitted in the original fee proposal
- 22.1.4 Amounts necessary to fund cost overruns in approved allowance items within Subcontract bid packages, as described in Article 21.3, above.

ARTICLE 23 SEQUENCE OF CONSTRUCTION

23.1 Details on construction sequencing are TBD.

- 23.2 All materials and equipment are to be brought into the project site from the approved staging location and are not to be brought through the existing buildings or loading docks. Any and all exceptions shall be approved by, and closely coordinated with, the Owner's Project Manager in advance of scheduling or performing the work.
- 23.2.1 The Trade Contractor(s) shall coordinate any road and sidewalk closings, utility disruptions, etc. which will affect the use of the existing building(s) with the Owner's Project Manager prior to commencing that Work.
- 23.3 The adjacent buildings and public areas will remain in use and the Owner shall have access to the existing building(s) throughout the duration of the Project. The Construction Manager shall coordinate construction activity to assure the safety of those who must cross the Project site and shall provide and maintain the necessary barriers and accommodations for a completely safe route of accessibility. The Trade Contractor(s) is to ensure that all exits provide for free and unobstructed egress. If exits must be blocked, then prior arrangements must be made with the Owner's Project Manager.
- 23.4 The Trade Contractor(s) shall cooperate with the Owner in minimizing inconvenience to, or interference with normal use of existing buildings and grounds by staff, students, other Contractors, or the public. Construction Manager shall conduct operations to prevent damage to adjacent building structures and other facilities and in such a manner to protect the safety of building's occupants.
- 23.5 Special effort shall be made by the Trade Contractor(s) to prevent any employee from entering existing buildings for reasons except construction business. Use of toilets, drinking fountains, vending machines, etc. is strictly prohibited.

ARTICLE 24 CRANE & MATERIAL HOIST OPERATIONS

- 24.1 Trade Contractor(s) shall provide appropriate barriers around crane and material hoist to protect pedestrian and vehicular traffic around operating area. When crane is operating or moving, flag men provided by Trade Contractor(s) shall be utilized to prevent pedestrian and vehicular traffic from crossing pathway of crane lift. Trade Contractor(s) flag men shall coordinate these activities with the appropriate security personnel.
- 24.2 Crane and material hoist shall be safely secured and inaccessible during non-operating hours. Trade Contractor(s) shall coordinate operation or erection of a crane or material hoist in the vicinity of the Medical Center with Medical Center Aeromedical Operations (Med-evac helicopter).
- 24.3 Any damage to trees, shrubs or plant material at the placement of crane or material hoist shall be repaired by tree surgery or replaced as directed by Consultant.

ARTICLE 25 UTILITIES

- 25.1 When the various building systems are energized and connected to Owner's utility systems, but prior to turnover to and occupancy by the Owner, the Trade Contractor(s) is responsible to reimburse the Owner for Owner furnished utilities. These utilities include but not limited to steam, chilled water, domestic water, and electricity, provided by the Owner up to the date of Substantial Completion. Reimbursement will be payable monthly via a deductive change order to the contract. Unit costs for campus are as follows:
- 25.1.1 Steam is \$15.00/million BTU (1000 lb.) condensate measured through the building condensate meter (all condensate is to be returned).
- 25.1.2 Chilled Water is \$11.00/million BTU (1000 lb.) measured through the building BTU meter.
- 25.1.3 Electricity is \$0.08/KWH measured through the building electric meter.
- 25.1.4 Water is supplied by Kentucky American Water Company (KAWC). Trade Contractor(s) shall pay KAWC directly until the Owner's beneficial occupancy date. The Trade Contractor(s) shall pay KAWC directly for fire service.
- 25.1.5 Trade Contractor(s) shall furnish gas meter and Columbia Gas Company directly for service until the until the Owner's beneficial occupancy date.
- 25.1.6 Trade Contractor(s) shall obtain from and pay UKIT Communications and Network Systems for the use of telephone services.
- 25.2 UTILITY OUTAGES

- 25.2.1 Interruption of Utilities and Services: No utilities or services may be interrupted without full consent and prior scheduling of the Owner. Owner approval is required in writing for each disruption.
- 25.2.1.1 ENTIRE BUILDING OUTAGE. The Owner's Project Manager is the Trade Contractor(s) contact with the University via the Construction Manager for requesting Utility Outages. The Owner's Project Manager will contact the proper departments and divisions within the University and receive approval from those units prior to allowing a planned outage to occur. The established standard within the University Departments and Divisions of an entire building or group of buildings shall be three weeks written notice. The written notice shall include the type of utility to be interrupted, reason for outage, length of outage, what will be affected by the outage, and a statement of whether or not the materials are on hand to complete the Work. If a specific time is desired for the outage it should be included. The Owner's Project Manager will ensure that all parties affected are contacted and that a time which is least disruptive to all parties is selected. At the appointed outage time, Work shall begin and proceed continuously with all required manpower until Work is complete at no added cost to the University. The Owner's Project Manager will then notify all affected departments or divisions.
- 25.2.1.2 SECTION OF A BUILDING OUTAGE. The Owner's Project Manager is the Construction Manager's contact with the University for requesting Utility Outages. The Owner's Project Manager will contact the proper departments and divisions within the University and receive approval from those units prior to allowing a planned outage to occur. The established standard within the University Departments and Divisions of a section of a building shall be a written request one week prior to outage. The written request shall include the type of utility to be interrupted, when the outage is desired, reason for outage, length of outage, and what will be affected by the outage. The Owner's Project Manager will ensure that all parties affected are contacted and that a time which is least disruptive to all parties is selected. At the appointed outage time Work shall begin and proceed continuously with all required manpower until Work is complete at no added cost to the University. The Owner's Project Manager will then notify all affected departments or divisions.

ARTICLE 26 CLEANING AND TRASH REMOVAL

- 26.1 The Trade Contractor(s) shall keep clean the entire area of new construction and shall keep streets used as access to and from the site free of mud and debris.
- All exit ways, walks, drives, grass areas, and landscaping must be kept free from debris, materials, tools, and vehicles at all times. Trim weeds and grass within the site area.
- 26.3 Upon completion of the Work, Trade Contractor(s) shall thoroughly clean and re-sod grass areas damaged to match existing areas.

- 26.4 All utility markings are to be made with water based marking paint with low Volatile Organic Compounds (VOC's) and high solids.
- 26.5 Upon Completion of the project, buried utility paint markings sprayed on walks and hardscapes are to be removed by non-destructive means such as pressure washing. Do not use chemicals. If a washed area is noticeable, the entire surface must be washed and or blended to match surrounding areas.
- 26.6 The Trade Contractor(s) shall be responsible for removal from the site of all liquid waste or other waste (i.e., hazardous, toxic, etc.) that requires special handling daily.
- 26.7 Dumpsters will be provided and maintained by the Trade Contractor(s)
- 26.8 During Work at the Project site, the Trade Contractor(s) shall clean and protect Work in progress and adjoining Work on a continuing basis. Trade Contractor(s) shall apply suitable protective covering on newly installed Work where needed to prevent damage or deterioration until the time of Substantial Completion. Trade Contractor(s) shall clean and perform maintenance on newly installed Work as frequently as necessary through remainder of construction period.
- 26.9 The Trade Contractor(s) shall be responsible for daily cleaning of spillage's and debris resulting from his and his Subcontractor's operations, (includes removal of dust and debris from wall cavities), and for providing closed, tight fitting (dustproof if required), waste receptacles to transport construction debris from the work area to the dumpster. Broom clean all floors no less than once a week. The Trade Contractor(s) shall empty such receptacles into the trash container when full or when directed to be emptied by the Consultant and/or Owner's Project Manager, but not less than weekly. The use of the Owner's waste and trash receptacles is strictly prohibited, except as otherwise provided by the Project specifications.
- 26.10 Failure to comply with the above requirements shall be cause for stopping work until the condition is corrected.

ARTICLE 27 BLASTING

27.1 There shall be no blasting under any conditions on University of Kentucky property unless specified in these Special Conditions.

ARTICLE 28 CUTTING AND PATCHING - NEW AND EXISTING WORK

28.1 New Work - Cutting and patching shall be done by craftsmen skilled and experienced in the trade or craft that installed or furnished the original Work. Repairs shall be equal in quality and appearance to similar adjacent Work and shall not be obviously apparent as a patch or repair. Work that cannot be satisfactorily repaired shall be removed and replaced.

28.2 Existing Construction - Refer to Architectural, Mechanical, and Electrical drawings for cutting and patching. All new Work shall be connected to the existing construction in a neat and workmanlike manner, presenting a minimum of contrast between old and new Work. Do all patching of the existing construction as may be required for the new construction to be completed. Necessary patching, closing of existing openings, repairing, and touching up shall be included as required for a proper, neat, and workmanlike finished appearance. Any existing item that is to remain and is damaged during construction shall be replaced at the Trade Contractor(s) expense.

ARTICLE 29 UNRELATED PROJECTS

29.1 Unrelated construction projects may be under way in the vicinity of this Project or the site utility work during the Work related to this Project. The Trade Contractor(s) for this Project must coordinate with any other contractors regarding overlapping areas. See Article 42 - Separate Contracts of the General Conditions.

ARTICLE 30 OWNER SUPPLIED MATERIALS (Not Used)

ARTICLE 31 REMOVED ITEMS (Not Used)

ARTICLE 32 INTERIOR ENCLOSURE AND DUST ENCAPSULATION

- 32.1 Areas under construction or renovation shall be separated from occupied areas by suitable temporary enclosures furnished, erected, and maintained by the Trade Contractor(s). Temporary enclosures shall be dust and smoke tight and constructed of non- combustible materials to prohibit dirt and air borne dust from entering occupied spaces. Construction Manager to review with Consultant via the Construction Manager ways to provide ventilation for dust generated by demolition and fumes/vapors produced during installation of new materials.
- 32.2 Trade Contractor(s) is responsible for coordinating with the Owner's Project Manager any equipment to be turned off prior to erecting temporary enclosures.
- 32.3 Trade Contractor(s) shall protect all exhaust diffusers, equipment, and electrical devices from the collection of dust. All areas shall be checked and cleaned prior to final acceptance of Work.
- 32.4 Dust and debris from Work operations shall be held to a minimum.
- 32.5 Trade Contractor(s) shall construct temporary dust partitions at locations and as detailed on drawings. Closures used for dust barricades shall be constructed of <u>non-combustible materials</u>, (metal studs and gypsum board or fire retardant plywood).

- 32.6 Trade Contractor(s) shall provide additional devices and materials as required to contain dust within Work area and protect personnel during course of Work.
- 32.7 Areas of minor renovation, consisting of the removal of doors and frames, blocking of openings, and other limited Work shall be separated by a dust partition of fire retarded polyethylene on studs.
- 32.8 Existing corridor doors may serve as dust barriers, except if removed for refinishing. In such cases, temporary wood doors must be substituted until original doors are replaced.
- 32.9 The Trade Contractor(s) may assume existing walls which extend full height of floor shall be deemed appropriate to contain air borne dust. Cover any voids or penetrations.
- 32.10 Doors or windows in the perimeter walls surrounding the project work area shall be sealed off with protective materials in a manner to prohibit dust from escaping the work area. These shall be left in place until all work creating dust is completed. Protective materials shall consist of fire retardant wood, metal studs, gypsum board or flame resistant plastic.
- 32.11 Entry passage to Work area shall be sealed off with zippered plastic opening, or other acceptable means which allows periodic entry and closure of barricade closure.
- 32.12 Install and maintain a "sticky mat" on the floor in locations where construction crews leave the construction area and prior to entering ANY existing space in the building.
- 32.13 Install and maintain a temporary floor covering in any and all elevators being utilized for this project.

ARTICLE 33 UKIT COMMUNICATIONS AND NETWORK SYSTEMS

33.1 The communications wiring is to be provided, installed, and terminated by the Trade Contractor(s) using a certified and approved communications contractor. All work shall be done in compliance with the latest UKIT-Communications and Network Systems' Standards, and closely coordinated with UKIT-Communications and Network Systems.

ARTICLE 34 EMERGENCY VEHICLE ACCESS

34.1 Emergency Vehicle Access must be maintained during construction. The Trade Contractor(s) shall coordinate with the local Fire and Emergency Medical Services department(s) that would respond to an emergency during the initial start up of construction to ensure a complete understanding of their requirements.

ARTICLE 35 SMOKE DETECTORS / FIRE ALARM SYSTEMS- EXISTING AND/OR NEW FACILITIES

- 35.1 Trade Contractor(s) shall protect all smoke detectors in Work areas to prevent false alarms. The Trade Contractor(s) will be responsible for any false alarm caused by dust created in their Work areas or dust traveling to areas beyond the Work, past inadequate protection barriers. If there is a need for an existing or newly installed fire alarm system or parts of that system to be serviced, turned off, or disconnected, prior approval must be obtained from the Owner's Project Manager and notification given to the Campus Dispatch Office. The Trade Contractor(s) must follow the procedure outlined for Utility Outages and any documented costs charged by the responding fire department due to a false alarm shall be paid by the Construction Manager. As soon as all Work is completed notification must be given to the Owner's Project Manager and to the Campus Dispatch Office prior to reactivation of the system. Prior to Final Payment to the Construction Manager, all protected smoke detectors will be uncovered and tested.
- 35.2.1 When any fire alarm, detection or suppression system is impaired, a temporary system shall be provided. Trade Contractor(s) shall provide daily reports indicating the Superintendent has walked through the project at the end of each work period, to satisfy himself there are no present conditions that may result in an accidental fire. Portable fire extinguishers shall be on site during this time. The Trade Contractor(s) is responsible for inspecting and testing any temporary systems monthly.

ARTICLE 36 SURVEYS, RECORDS, and REPORTS

- 36.1 General: Working from lines and levels established by property survey, and as shown in relation to the Work, the Trade Contractor(s) will establish and maintain benchmarks and other dependable markers to set lines and levels for Work at each area of construction and elsewhere on site as needed to properly locate each element of the entire Project. The Trade Contractor(s) shall calculate and measure from the benchmarks and dependable markers required dimensions as shown (within recognized tolerances if not otherwise indicated), and shall not scale drawings to determine dimensions. Trade Contractor(s) shall advise Sub-contractors performing Work of marked lines and levels provided for their use in layout of Work.
- 36.2 Survey Procedures: The Trade Contractor(s) shall verify layout information shown on drawings, as required for his own Work. As Work proceeds, surveyor shall check every major element for line, level, and plumb (as applicable), and maintain an accurate Surveyor's log or Record Book of such checks available Trade Contractor(s) or Design Consultant's reference at reasonable times. Surveyor shall record deviations from required lines and levels, and advise Design Consultant or Trade Contractor(s) promptly upon detection of deviations exceeding indicated or recognized tolerances. The Trade Contractor(s) shall record deviations which are accepted (not corrected) on Record Drawings.

ARTICLE 37 SMOKING IS PROHIBITED

- 37.1 For areas located within Fayette County, Kentucky, the use of <u>all</u> tobacco products is prohibited on all property that is owned, operated, leased, occupied, or controlled by the University. This includes the use of smokeless/vaping products. "Property" for purposes of this paragraph includes buildings and structures, grounds, parking structures, enclosed bridges and walkways, sidewalks, parking lots, and vehicles, as well as personal vehicles in these areas. Contractor shall place signage at all entrances to the job site indicating "The University of Kentucky is a tobacco free campus including inside and outside of the construction fence. Use of any tobacco products shall not be tolerated and may result in dismissal from the job site." To view the Lexington campus boundaries: http://www.uky.edu/TobaccoFree/files/map.pdf.
- 37.2 For areas not located within Fayette County, Kentucky, smoking is prohibited in all owned, operated, leased, or controlled University buildings and structures, parking structures, enclosed bridges and walkways, and vehicles. Smoking is also prohibited outside buildings and structures within 20 feet of entrances, exits, air intakes, and windows, unless further restricted by division policy.
- 37.3 Trade Contractor(s) employees violating this prohibition will be subject to dismissal from the Project.
- 37.4 For the full Administrative Regulation see University AR 6:5. http://www.uky.edu/Regs/files/ar/ar6-5.pdf

ARTICLE 38 ALTERNATES

- 38.1 Alternate(s) will be accepted in the sequence of the Alternates listed on the Bid Form, and the lowest Bid Sum will be computed on the basis of the sum of the base Bid and any alternates accepted, within the budgeted amount.
- 38.2 Schedule of Alternates:

TBD

ARTICLE 39 FIELD CONSTRUCTED SAMPLE PANEL

- 39.1 Exterior Finishes
- 39.1.1 After sample selection but prior to ordering exterior finish materials, Trade Contractor(s) shall accumulate enough material samples to erect sample wall panels to further verify selection made for color and textural characteristics, and to represent completed Work for qualities of appearance, materials and construction including sample masonry units (face and back-up wythes, plus accessories), window units, roofing finish, etc. to provide a complete representation of the exterior facade for approval by the Consultant; build mock-ups to comply with the following requirements:

- 39.1.2 Build sample panels well in advance of the time the finish materials will be needed for inclusion in the Work.
- 39.1.3 Locate mock-ups at location as reviewed and approved by the Architect and University's Project Manager, generally within 10 feet of existing building, parallel to existing face of building, and exposed to sunlight during daylight hours. Mock-Up to be reviewed twice, one in direct sunlight and one in shade to confirm color characteristics of samples.
- 39.1.4 Sample Panel Size(s) for the following types shall be approximately 6' long by 4' high by full thickness.

Each type of exposed Work.

- 39.1.5 Protect mock-ups from the elements with weather resistant membrane.
- 39.1.6 Retain mock-ups during construction as a standard for judging completed Work. When directed by the University's Project Manager or by the Consultant, demolish mock-ups and remove from the site.
- 39.2 Interior Finishes
- 39.2.1 After sample selection but prior to ordering interior finish materials, Construction Manager shall accumulate enough material samples to erect sample to further verify selection made for color and textural characteristics, and to represent completed Work for qualities of appearance, materials and construction; include samples of <u>interior finishes</u>, including paint, wood stain, vinyl wallcovering, flooring and ceiling materials to provide a complete representation for approval by the Consultant; build mock-ups to comply with the following requirements:
- 39.2.2 Build mock-ups well in advance of the time the finish materials will be needed for inclusion in the Work. Mock-ups may be on newly installed wall surfaces.
- 39.2.3 Locate mock-ups with adequate illumination for observation under intended light levels.
- 39.2.4 Retain mock-ups during construction as a standard for judging completed Work. When directed by the University's Project Manager or by the Consultant, remove mock-ups from site or incorporate into the completed work.

ARTICLE 40 PROJECT COORDINATION VIA COMPUTER

40.1 The Construction Manager and Subcontractors are required to have an active email account to facilitate coordination of the project during construction and warranty.

- 40.2 To facilitate project construction coordination between the Consultant, the Construction Manager, Subcontractors, and the University of Kentucky as the Owner, UK Capital Project Management Division (CPMD) is hosting an Internet/ Web-based Project Management System (WPMS) to help improve project communication and collaboration. The Consultant shall participate in the use of the WPMS (UK E-Communication® or other system at the Owner's discretion) providing collaboration between Owner, the Consultant and selected contractors.
- 40.2.1 Owner shall provide the Construction Manager and Subcontractors with user accounts and appropriate training for the web-based project management tool.
- 40.2.2 Utilization of, and training in the use of, the WPMS will be arranged for and supervised by Owner.
- 40.2.3 Participation of Subcontractors and/or Trade Contractor(s) is mandatory.
- 40.2.4 All participants are required to have access to the internet and the Microsoft Internet Explorer browser (version 5.0 or higher). A broadband connection to the internet (e.g. Cable modem, ISDN, DSL) is recommended, but not required.
- 40.2.5 The WPMS shall be utilized for the following functions, as a minimum: Posting Project Files, AE Amendments, Architect's Supplemental Information (ASI's), Closeouts, Consultant Invoices, Contracts, Defective Work in Place, Meeting Minutes, Payment Applications, Proposed Change Orders Change Orders (PCO to CO's), Punch Lists, Reports (Contractor Daily Reports, Field Reports, Commissioning Reports), RFIs, SAP Equipment List, Schedules, and Submittals. The Document Library (Bid set Plans, Specifications and Addenda will be uploaded by Lynn Imaging.
- 40.2.6 Site camera monitors may be included at Owner's discretion.
- 40.2.7 Utilization of the WPMS shall be implemented by the Owner's representative.
- 40.2.8 Use of the system will provide consistent, real-time information for decision making. Additionally, all project data entered into the system will be archived to facilitate project record keeping. It is anticipated that proper use of the WPMS will improve efficiency of communications and reduce project related paperwork and clerical workload.
- 40.2.9 The Trade Contractor(s), Construction Manager and Consultant shall submit complete close-out and submittal logs in E-Communication, or WPMS, including description of all deliverables to be submitted by the construction manager or trade contractors during Phase 3, Construction Documents Phase.

ARTICLE 41 HOT WORK PERMITS

41.1 All work involving open flames or producing heat and or sparks in occupied buildings on the University of Kentucky campus will require the Trade Contractor(s) to obtain approval to perform "Hot Work" on site. This includes, but is not limited to: Brazing, Cutting, Grinding, Soldering, Thawing Pipe, Torch Applied Roofing, and Cad welding. A copy of the Hot Work Permit and the Hot Work Permit Procedure will be passed out at the Preconstruction Conference for the Trade Contractor(s) use.

ARTICLE 42 INSURANCE

- 42.1 Employers' Liability Insurance. Reference project CCIP manual and information.
- 42.2.1 Commercial General Liability Insurance. If the work involved requires the use of helicopters, a separate aviation liability policy with limits of liability of \$100,000,000 will be required. If cranes and rigging are involved, a separate inland marine policy with liability limits of \$20,000,000 will be required.
- 42.2.1.1 The limits of liability shall not be less than \$5,000,000 each occurrence combined single limits for bodily injury and property damage.
- 42.2.2 Comprehensive Automobile Liability Insurance. Policy limits shall not be less than \$2,000,000 for combined single limits for bodily injury and property damage for each occurrence.
- 42.2.3 Umbrella Liability Insurance. This policy shall have a minimum of \$15,000,000 combined single limits for bodily injury and property damage for each occurrence in excess of the applicable limits in the primary policies.
- 42.2.4 Workers' Compensation- Statutory Requirements (Kentucky). Reference project CCIP manual and information

ARTICLE 43 KEY ACCESS

- 43.1 If Construction Cores are NOT utilized, then one set of keys for access to the renovation project area will be provided to the Construction Manager/Vendor's Project Manager/Superintendent by the University's Project Manager. The Construction Manager/Vendor's holder of the key(s) assumes responsibility for the safekeeping of the key(s) and its use. When leaving the renovation area all doors must be secured.
- 43.2 All keys must be returned to the University's Project Manager upon completion of project work as one of the requirements for Final Payment. Failure to return the keys may require re-keying of all doors in the work area up to and including the entire building if master keys are issued. The cost of re-keying of the door(s) accessed by the key(s) will be subtracted from the remaining contract dollars including contract retainage.

43.3 All lost or stolen keys must be reported immediately to the University's Project Manager.

ARTICLE 44 CEILING CLEARANCE

- 44.1 Work above ceiling: All work above an area with lay-in ceiling must be coordinated and installed so there is a minimum of 4" between the top of the ceiling grid runners and bottom of the installation. Installation shall not obstruct equipment access space or equipment removal space. Also, conduit and pipe attached to the wall must be above the 4" minimum level.
- 44.2 Coordination Between Trades: Request and examine all drawings and specifications pertaining to the construction before installing above ceiling work. Cooperate with all other contractors in locating piping, ductwork, conduit, openings, chases, and equipment in order to avoid conflict with any other contractor's work. Give special attention to points where ducts or piping must cross other ducts and piping, and where ducts, piping and conduit must fur into the walls and columns. Make known to other trades intended positioning of materials and intended order of work. Determine intended position of work of other trades and intended order of installation.

ARTICLE 45 METAL ANCHORS

45.1 All anchoring devices utilized to secure materials to the building shall be metal. Plastic or plastic expansion components shall not be used. This shall include all fasteners for mechanical/electrical hangers.

ARTICLE 46 LOADING DOCK (NOT USED)

ARTICLE 47 CONSTRUCTION PATH (NOT USED)

ARTICLE 48 HOSPITAL PROJECT PROCEDURE (NOT USED)

ARTICLE 49 WORKING HOURS/ACCESS: FOR MEDICAL CENTER/HOSPITAL (NOT USED)

ARTICLE 50 SECURITY BADGES AND MEDICAL CENTER SECURITY (NOT USED)

ARTICLE 51 HOSPITAL CONSTRUCTION CERTIFICATION (NOT USED)

ARTICLE 52 APPEARANCE (NOT USED)

ARTICLE 53 HIPAA (The Health Insurance Portability and Accountably Act) (NOT USED)

ARTICLE 54 SAFETY & FIRE PROCEDURES (NOT USED)

ARTICLE 55 INTERIM LIFE SAFETY MEASURES (ILSM) (NOT USED)

ARTICLE 56 TREE PROTECTION STANDARDS

Contractor will adhere to all provisions outlined in 010000S02 Tree Protection Standards.

ARTICLE 57 CONTRACTOR/SUPERINTENDENT EXPERIENCE

57.1 For those projects impacting patient care the Construction Manager and Superintendent are required to have a minimum of five (5) years of construction experience in the past 10 years with projects involving patient care areas.

ARTICLE 58 COVID-19 POLICY

Any and all companies/organizations working on the University of Kentucky's campus shall have in place for the period of the contract a COVID-19 policy that is consistent with the University of Kentucky's current COVID-19 policy.

This Agreement, made as of the <u>SDS</u> day of <u>SDS</u> in the year <u>SDS</u> by and between CONTRACTOR and <u>SDS</u> (See Subcontract Data Sheet for this Item and all other Items marked SDS) (hereinafter called the Subcontractor).

Witnesseth, that the Subcontractor and Contractor agree as follows:

Description of Work

ARTICLE I. The Subcontractor shall perform and furnish all the work, labor, services, materials, plant, equipment, tools, scaffolds, appliances and other things necessary for SDS (Hereinafter called the Work) for and at the SDS (Hereinafter called the Project), located on premises at SDS (Hereinafter called the Premises), as shown and described in and in strict accordance with the Plans, Specifications, General Conditions, Special Conditions and Addenda thereto prepared by SDS (Hereinafter called the Architect) and with the terms and provisions of the General Contract (hereinafter called the General Contract) between Contractor and SDS (Hereinafter called the Owner) dated SDS and in strict accordance with the Additional Provisions, page(s) SDS annexed hereto and made a part hereof.

Plans & Specifications

ARTICLE II. The Plans, Specifications, General Conditions, Special Conditions, Addenda and General Contract hereinabove mentioned, are available for examination by the Subcontractor at all reasonable times at the office of Contractor; all of the aforesaid, including this Agreement, being hereinafter sometimes referred to as the Contract Documents. The Subcontractor represents and agrees that it has carefully examined and understands this Agreement and the other Contract Documents, has investigated the nature, locality and site of the Work and the conditions and difficulties under which it is to be performed and that it enters into this Agreement on the basis of its own examination, investigation and evaluation of all such matters and not in reliance upon any opinions or representations of Contractor, or of the Owner, or of any of their respective officers, agents, servants, or employees.

Contract Documents

With respect to the Work to be performed and furnished by the Subcontractor hereunder, the Subcontractor agrees to be bound to Contractor by each and all of the terms and provisions of the General Contract and the other Contract Documents, and to assume toward Contractor all of the duties, obligations and responsibilities that Contractor by those Contract Documents assumes toward the Owner, and the Subcontractor agrees further that Contractor shall have the same rights and remedies as against the Subcontractor as the Owner under the terms and provisions of the General Contract and the other Contract Documents has against Contractor with the same force and effect as though every such duty, obligation, responsibility, right or remedy were set forth herein in full. The terms and provisions of this Agreement with respect to the Work to be performed and furnished by the Subcontractor hereunder are intended to be and shall be in addition to and not in substitution for any of the terms and provisions of the General Contract and the other Contract Documents.

This Subcontract Agreement, the provisions of the General Contract and the other Contract Documents are intended to supplement and complement each other and shall, where possible, be thus interpreted. If, however, any provision of this Subcontract Agreement irreconcilably conflicts with a provision of the General Contract and the other Contract Documents, the provision imposing the greater duty or obligation on the Subcontractor shall govern.

Contractor hereby advises, and the Subcontractor hereby acknowledges, that Contractor in administering this subcontract will be utilizing an information systems infrastructure to process, deliver, and share and/or, at times, to apply electronic signatures to execute certain project documentation through electronic means. As part of the implementation of this infrastructure, the Subcontractor will be given individual, secure log on codes to access the Contractor systems presenting this electronic information. The Subcontractor hereby agrees that such electronic access and the ability of the subcontractor to print out such electronic documents will be in lieu of requiring the delivery of the contents of such electronic documents on printed or paper based media directly to Subcontractor by Contractor or through means of outside third-party services. Delivery of such electronic documents to Subcontractor will be deemed to have occurred when access to the document is made available to Subcontractor in the infrastructure.

At times, Contractor may, through this electronic infrastructure system, initiate Subcontract Change Order documents that will require that the Subcontractor review and approve or reject each such document applying its electronic signature to the approved document on the Contractor software and thereafter, Contractor will apply the electronic signature of its authorized personnel to execute the approved document and electronically deliver the fully executed document to the Subcontractor. The Subcontractor agrees and acknowledges that granting its on-line approval and electronically executing a Subcontract Change Order also affixes the Subcontractor's electronic signature to such document and in so doing it is agreeing that each such document, when electronically countersigned by Contractor, are valid and authentic and enforceable obligations of both parties and to honor and be bound by such documents as if they had been prepared on hard copy and contained the manually applied autograph signatures of the Subcontractor's and Contractor's authorized personnel. Subcontractor hereby agrees to establish, continuously use and maintain a robust and effective Security System/ID and Passwords to protect its identity when addressing and/or signing any electronic contract related documentation issued or exchanged pursuant to this Article.

Optionally, Contractor may use paper documents, where the Subcontractor reviews the proposed paper document and, if it approves, it manually affixes its autograph signature to the paper document and physically returns the signed paper document to Contractor who completes the execution by applying either its autograph or electronic signature to the Subcontract Change Order and a copy of the executed Subcontract Change Order showing the presence of both signatures is physically delivered to the Subcontractor and such Subcontract Change Order shall likewise be deemed by both parties to be valid and authentic and enforceable obligations of both parties.

Contractor may from time to time issue policies or directives applicable to electronic communications, electronic infrastructure and electronic data and Subcontractor shall comply with such policies and directives whether issued as part of this Subcontract or hereafter, and the cost and expense of such compliance shall be borne by the Subcontractor.

Time of Performance & Completion

ARTICLE III. The Subcontractor shall commence the Work when notified to do so by Contractor and shall diligently and continuously prosecute and complete the Work and coordinate the Work with the other work being performed on the Project, in accordance with those project schedules as may be issued from time to time during the performance of the Work and any other scheduling requirements listed in this Agreement, so as not to delay, impede, obstruct, hinder or interfere with the commencement, progress or completion of the whole or any part of the Work or other work on the Project, and in such a manner as necessary or requested by Contractor from time to time to ensure that Contractor satisfies its obligations in a timely manner under the General Contract.

Planning & Scheduling

The Subcontractor shall participate and cooperate in the development of schedules and other efforts to achieve timely completion of the Work providing information for the scheduling of the times and sequence of operations required for its Work to meet Contractor's overall schedule requirements, shall continuously monitor the project schedule so as to be fully familiar with the timing, phasing and sequence of operations of the Work and of other work on the Project, and shall execute the Work in accordance with the requirements of the project schedule including any revisions thereto. Subcontractor shall abide by all requirements of the General Contract relating to the submission of schedule and other information related to the performance of Subcontractor's Work not less than 14 days prior to the time when Contractor is required to provide such materials to Owner under the General Contract, except where Contractor directs otherwise. Subcontractor shall, at no additional cost, provide updates, additional or further detailed schedules and other information as frequently and in whatever form Contractor may request, including but not limited to (1) manpower and cost loaded schedules; (2) information related to its operations as a whole, including but not limited to identifying lower tier subcontractors and suppliers and the status of payments to such subcontractors and suppliers; (3) unions and related benefit funds associated with labor used in the performance of the Work; (4) credit sources and banks providing financing or loans in connection with the performance of the Work or Subcontractor's operations as a whole and any covenants and requirements imposed upon Subcontractor in connection therewith and the status of Subcontractor's compliance with such covenants and requirements; and (5) the status of orders, fabrication and delivery of materials and arrangements for the provision of labor. The foregoing information shall include names and contact information, and Subcontractor acknowledges and agrees that Contractor may contact any persons or entities as it deems necessary to verify or obtain such information.

Subcontractor shall establish and maintain a reasonable accounting system by which records are kept that enable Contractor to readily identify all of Subcontractor's expenses, costs, payments (including to its workers, subcontractors and suppliers, unions, and benefit funds), obligations, budgets, and other financial information related to the Work or this Subcontract. Such records shall include, but not be limited to, all accounting records, written policies and procedures, subcontract files for all tiers, payment vouchers, ledgers, cancelled checks, contract amendments, change order information, insurance documents, and other similar information. Contractor shall have the right to audit, examine, and make copies of all such records (whether written, electronic or another format) as Contractor may determine, and Subcontractor shall facilitate and cooperate with Contractors efforts in this regard. Subcontractor shall impose similar obligations on its subcontractors and vendors to ensure that comparable records kept and Contractor has the right to audit, examine and copy those records.

Delays by Subcontractor

Should the progress of the Work or of the Project be delayed, disrupted, hindered, obstructed, or interfered with by any fault or neglect or act or failure to act of the Subcontractor or any of its officers, agents, servants, employees, subcontractors or suppliers so as to cause any additional cost, expense, liability or damage to Contractor including legal fees and disbursements incurred by Contractor (whether incurred in defending claims arising from such delay or in seeking reimbursement and indemnity from the Subcontractor and its surety hereunder or otherwise) or to the Owner or any damages or additional costs or expenses for which Contractor or the Owner may or shall become liable, the Subcontractor and its surety shall and does hereby agree to compensate Contractor and the Owner for and indemnify them against all such costs, expenses, damages and liability.

Overtime

If the progress of the Work or of the Project be delayed by any fault or neglect or act or failure to act of the Subcontractor or any of its officers, agents, servants, employees, subcontractors or suppliers, then the Subcontractor shall, in addition to all of the other obligations imposed by this Agreement upon the Subcontractor in such case, and at its own cost and expense, work such overtime as may be necessary to make up for all time lost in the completion of the Work and of the Project due to such delay. Should the Subcontractor fail to make up for the time lost by reason of such delay, Contractor shall have the right to cause other Subcontractors to work overtime and to take whatever other action it deems necessary to avoid delay in the completion of the Work and of the Project, and the cost and expense of such overtime and/or such other action shall be borne by the Subcontractor.

Contractor, if it deems necessary, may direct the Subcontractor to work overtime and, if so directed, the Subcontractor shall work said overtime and, provided that the Subcontractor is not in default under any of the terms or provisions of this Agreement or of any of the other Contract Documents and the direction to work overtime was not due in whole or in part to any fault or failure of Subcontractor, Contractor will pay the Subcontractor only for such actual additional wages paid, if any, at rates which have been approved by Contractor plus taxes imposed by law on such additional wages, plus workers' compensation insurance, liability insurance and levies on such additional wages if required to be paid by the Subcontractor to comply with Subcontractor's obligations under this Agreement. Subcontractor acknowledges that in the event that it may intend to pursue a claim of inefficiency, loss of productivity or other similar or related request for additional compensation, Subcontractor may rely only on evidence indicating the actual inefficiency, loss of productivity or other similar consequence as it occurred on the Project and agrees that no reports, analyses, data, industry or academic studies or any other evidence that do not exclusively rely on and pertain to the Work performed at the Project shall be used or in any way considered, in whole or in part, in connection with the resolution of such a claim, whether by Contractor or any forum for dispute resolution.

Price

ARTICLE IV. The sum to be paid by Contractor, out of funds received from the owner, to the Subcontractor for the satisfactory performance and completion of the Work and of all of the duties, obligations and responsibilities of the Subcontractor under this Agreement and the other Contract Documents shall be <u>SDS</u> (Hereinafter called the Price) subject to additions and deductions as herein provided.

The Price includes all Federal, State, County, Municipal and other taxes imposed by law and based upon labor, services, materials, equipment or other items acquired, performed, furnished or used for and in connection with the Work, including but not limited to sales, use and personal property taxes payable by or levied or assessed against the Owner, Contractor or the Subcontractor. Where the law requires any such taxes to be stated and charged separately, the total price of all items included in the Work plus the amount of such taxes shall not exceed the Price

Progress Payments

On or before the last day of each month the Subcontractor shall submit to Contractor, in the form required by Contractor, a written requisition for payment showing the proportionate value of the Work installed to that date, from which shall be deducted: a reserve of <u>SDS</u>; all previous payments; all amounts and claims against Subcontractor, by Contractor or any third party, for which Subcontractor is responsible hereunder; and all charges for services, materials, equipment and other items furnished by Contractor to or chargeable to the Subcontractor; and the balance of the amount of such requisition, as approved by Contractor and the Architect and for which payment has been received by Contractor from the Owner, shall be due and paid to the Subcontractor on or about the fifteenth (15th) day of the succeeding month or in accordance with the Contract Documents. Contractor shall have the right, at its sole discretion, to issue payments to Subcontractor by way of joint checks to Subcontractor

and suppliers and/or vendors of Subcontractor, and Subcontractor agrees to cooperate fully in facilitating the making of such joint payments.

Payments in General

The obligation of Contractor to make a payment under this Agreement, whether a progress or final payment, or for extras or change orders or delays to the Work, is subject to the express condition precedent of payment therefor by the Owner. In making payments to Subcontractor, Contractor will act as the agent of the Owner and not the Subcontractor, thereby acting as a conduit of such payments from the Owner to the Subcontractor. Given that Subcontractor is to be paid exclusively out of dollars paid by the Owner and only if such payment is made by Owner, Subcontractor understands and accepts the risk of non-payment by the Owner. If Contractor has provided payment or performance bonds or a combination payment and performance bond, the obligation of Contractor and its Surety under any of those bonds to make any payment (whether a progress payment or final payment) to a claimant on that bond is similarly subject to the express condition precedent of payment therefor by the Owner.

The Subcontractor shall submit with its first requisition for payment a detailed schedule showing the breakdown of the Price into its various parts for use only as a basis of checking the Subcontractor's monthly requisitions.

Contractor reserves the right to advance the date of any payment (including the final payment) under this Agreement if, in its sole judgment, it becomes desirable to do so.

The Subcontractor agrees that, if and when requested to do so by Contractor, it shall furnish such information, evidence and substantiation as Contractor may require with respect to the nature and extent of all obligations incurred by the Subcontractor for or in connection with the Work, all payments made by the Subcontractor thereon, and the amounts remaining unpaid, to whom and the reasons therefor.

Final Payment

Final payment to the Subcontractor shall be made only with funds received by Contractor from the Owner, the Construction Lender or the Owner's Agent as final payment for Work under the General Contract. Final payment to Contractor by the Owner shall be an express condition precedent that must occur before Contractor shall be obligated to make final payment to the Subcontractor. In addition, final payment by Contractor to the Subcontractor shall not become due and payable until the following other express conditions precedent have been met: (1) the completion and acceptance of the Work by Contractor and the Architect: (2) provision by the Subcontractor of evidence satisfactory to Contractor that there are no claims, obligations or liens outstanding or unsatisfied for labor, services, materials, equipment, taxes or other items performed, furnished, or incurred for or in connection with the Work; (3) execution and delivery by the Subcontractor, in a form satisfactory to Contractor of a general release running to and in favor of Contractor and the Owner; and (4) complete and full satisfaction of all claims, demands and disputes, and all obligations and responsibilities of Subcontractor, arising out of or related to the Subcontract, including those as between Contractor and Subcontractor as well as those between Subcontractor and any third party. Should there be any such claim, obligation or lien or unsatisfied obligation or responsibility whether before or after final payment is made, the Subcontractor shall pay, refund or deliver to Contractor (1) all monies that Contractor and/or the Owner shall pay in satisfying, discharging or defending against any such claim, obligation or lien or any action brought or judgment recovered thereon and all costs and expenses, including legal fees and disbursements, incurred in connection therewith; and (2) such amounts as Contractor or Owner shall, in their sole discretion, determine to be an amount sufficient to protect Contractor and Owner therefrom (in lieu of payment of such amounts, Subcontractor may, at Owner's and Contractor's sole discretion, deliver a bond satisfactory to Contractor and Owner). Such refund and payment shall be made within ten (10) days of request by Contractor to Subcontractor for same. The final payment shall be due within forty (40) days after all of these express conditions precedent have been met.

Liens by Others

If any claim or lien is made or filed with or against Contractor, the Owner, the Project, the Premises or the Project funds by any person claiming that the Subcontractor or any subcontractor or other person under subcontract to Subcontractor, or any person or entity employed or engaged by or through Subcontractor at any tier, has failed to make payment for any labor, services, materials, equipment, taxes or other items or obligations furnished or incurred for or in connection with the Work, or if any such claim or lien is filed or presented, or if Contractor, in good faith, believes that such a claim or lien may be filed or brought, or if at any time there shall be evidence of such nonpayment or of any claim or lien for which, if established, Contractor or the Owner might become liable and which is chargeable to the Subcontractor, or if the Subcontractor or any subcontractor or other person under subcontract to Subcontractor, or any person or entity employed or engaged by or through Subcontractor at any tier causes damage to the Work or to any other work on the Project, or if the Subcontractor fails to perform or is otherwise in default under any of the terms or provisions of this Agreement, Contractor shall have the right (A) to retain from any payment then due or thereafter to become due an amount which it deems sufficient to (1) satisfy, discharge and/or defend against any such claim or lien or any action which may be brought or judgment which may be recovered thereon, (2) make good any such nonpayment, damage, failure or default, and (3) compensate Contractor and the Owner for and indemnify and hold them harmless against any and all losses, liability, damages, costs and expenses, including legal fees and disbursements, which may be sustained or incurred by either or both of them in connection therewith; and (B) to demand that Subcontractor provide, within ten (10) days of Contractor's request therefore, proof to the satisfaction of Contractor and Owner that such non-payment, claim or lien has been fully satisfied, dismissed and discharged. Upon the failure of Subcontractor to fulfill the requirements of a demand issued by Contractor pursuant to subsection (B) above, Contractor may, in such manner as Contractor may in its sole discretion determine, secure the satisfaction, dismissal and discharge of such claim, by payment or otherwise, and Subcontractor shall within ten (10) days of demand therefore, be liable for and pay to Contractor all amounts (including legal fees and disbursements) incurred or suffered by Contractor or Owner arising out of or related thereto. Contractor shall, in addition, have the right to apply and charge against the Subcontractor so much of the amount retained as may be required for the foregoing purposes. Subcontractor further agrees to indemnify, hold harmless and defend Contractor and Owner, upon demand, for any and all such claims, liens, and the costs, expenses (including legal fees and disbursements), damages and liabilities arising out of or related thereto. Subcontractor acknowledges (1) that discharge of such liens or claims by bond imposes liability upon a surety and Contractor, and (2) that Contractor is not required to discharge such lien or claims by bond when exercising its rights hereunder. Subcontractor agrees that should there be any amounts due or which may become due to Subcontractor in connection with any other subcontracts between Contractor and Subcontractor or other obligations that Contractor may have to Subcontractor, Contractor shall be entitled to withhold payment under such other subcontract or obligations to the extent that Contractor believes that the unpaid balance of this Subcontract may not be adequate to satisfy Subcontractor's obligations to Contractor hereunder.

Effect of Payment

No payment (final or otherwise) made under or in connection with this Agreement shall be conclusive evidence of the performance of the Work or of this Agreement, in whole or in part, and no such payment shall be construed to be an acceptance of defective, faulty or improper work or materials nor shall it release the Subcontractor from any of its obligations under this Agreement; nor shall entrance and use by the Owner constitute acceptance of the Work or any part thereof. The failure of Subcontractor to fully perform and satisfy any or all obligations set forth in this Article IV shall constitute a default, entitling

Contractor to take action as described in Article XI.

Subcontractor acknowledges and agrees that to the extent that payments received by Subcontractor include amounts for Work performed by subcontractors to Subcontractor or services or materials provided to Subcontractor by suppliers, vendors, workers employed by or through Subcontractor, all such payments received by Subcontractor shall be deemed to have been received by Subcontractor as trustee with those entitled to receive payment from Subcontractor as beneficiaries of such amounts, and Subcontractor shall hold such funds separately and utilize such amounts only for the purpose of making payment to these beneficiaries. In the event that Subcontractor subsequently determines that a beneficiary is not entitled to receipt of payment, Subcontractor shall return such unpaid funds to Contractor.

Extension of Time & Delays

ARTICLE V. Should the Subcontractor be delayed, obstructed, hindered or interfered with in the commencement, prosecution or completion of the Work by any cause including but not limited to any act, omission, neglect, negligence or default of Contractor or of anyone employed by Contractor or by any other contractor or subcontractor on the Project, or by the Architect, the Owner or their contractors, subcontractors, agents or consultants, or by damage caused by fire or other casualty or by the combined action of workers or by governmental directive or order in no way chargeable to the Subcontractor, or by any extraordinary conditions arising out of war or government regulations, or by any other cause beyond the control of and not due to any fault, neglect, act or omission of the Subcontractor, its officers, agents, employees, subcontractors or suppliers, then except where the General Contract has specific requirements at variance with the foregoing, in which case the requirements of the General Contract shall govern, the Subcontractor shall be entitled to an extension of time for a period equivalent to the time lost by reason of any and all of the aforesaid causes; provided, however, that the Subcontractor shall not be entitled to any such extension of time unless the Subcontractor (1) notifies Contractor in writing of the cause or causes of such delay, obstruction, hindrance or interference within forty eight (48) hours of the commencement thereof and (2) demonstrates that it could not have anticipated or avoided such delay, obstruction, hindrance or interference and has used all available means to minimize the consequences thereof. Subcontractor acknowledges that provision of such notice is an essential condition precedent to Subcontractor's rights in connection with any such delays, obstructive hindrances or interferences to Contractor's ability to fully identify, and expeditiously, address and avoid such cause or causes, and, accordingly, Subcontractor expressly waives all rights with respect to any such cause or causes for which notice hereunder was not provided. Notwithstanding the foregoing, if the General Contract is at variance with granting such time extension, then the provisions of the General Contract shall control.

The Subcontractor agrees that it shall not be entitled to nor claim any cost reimbursement, compensation or damages for any delay, obstruction, hindrance or interference to the Work except to the limited extent that Contractor has actually recovered corresponding cost reimbursement, compensation or damages from the Owner under the Contract Documents for such delay, obstruction, hindrance or interference, and then only to the extent of the amount, if any, which Contractor on behalf of the Subcontractor, actually received from the Owner on account of such delay, obstruction, hindrance or interference. Notwithstanding any term or provision herein to the contrary, Subcontractor expressly waives and releases all claims or rights to recover lost profit (except for profit on work actually performed), recovery of overhead (including home office overhead), and any other indirect damages, costs or expenses in any way arising out of or related to the Agreement, including the breach thereof by Contractor, delays, charges, acceleration, loss of efficiency or productivity disruptions and interferences with the performance of the work.

It shall be an express condition precedent to any obligation on the part of Contractor to make payment of any such cost, reimbursement, compensation or damages to the Subcontractor hereunder that Contractor shall first be determined to be entitled to such compensation on behalf of the Subcontractor and then receive such payment from Owner, and Subcontractor expressly acknowledges that Contractor is not obligated or required to pursue Subcontractor claims as against Owner if Contractor, in its sole discretion, after review of Subcontractor's claim, has deemed the claim to lack merit in whole or in part.

The Subcontractor agrees that it shall contribute a fair and proportionate share of the costs of advancing the claims of the Subcontractor for delay, including but not limited to legal and other professional fees.

Freight Charges & Shipments **ARTICLE VI.** The Subcontractor in making or ordering shipments shall not consign or have consigned materials, equipment or any other items in the name of Contractor. Contractor is under no obligation to make payment for charges on shipments made by or to the Subcontractor but may, at its option, pay such charges, in which case the Subcontractor shall reimburse Contractor for the amount of such payments plus a service charge of twenty-five percent (25%) of the amount so paid.

Dimensions

ARTICLE VII. Notwithstanding the dimensions on the Plans, Specifications and other Contract Documents it shall be the obligation and responsibility of the Subcontractor to take such measurements as will ensure the proper matching and fitting of the Work covered by this Agreement with contiguous work.

Shop Drawings The Subcontractor shall prepare and submit to Contractor such shop drawings as may be necessary to describe completely the details and construction of the Work. Approval of such shop drawings by Contractor and/or the Architect shall not relieve the Subcontractor of its obligation to perform the Work in strict accordance with the Plans, Specifications, the Additional Provisions hereof and the other Contract Documents, nor of its responsibility for the proper matching and fitting of the Work with contiguous work and the coordination of the Work with other work being performed on the site, which obligation and responsibility shall continue until completion of the Work.

The Subcontractor's submission of a shop drawing to Contractor shall constitute the Subcontractor's representation, upon which Contractor may rely, that the Subcontractor has reviewed the submission for accuracy and compliance with all Contract Documents and that wherever engineering is required to be performed, same has been performed by a qualified and licensed engineer. Furthermore, the review of the Shop Drawing by Contractor shall not constitute an undertaking by Contractor to identify deficiencies in the submission, that being an undertaking within the sole responsibility of the Subcontractor.

Contiguous Work

Should the proper and accurate performance of the Work hereunder depend upon the proper and accurate performance of other work not covered by this Agreement, the Subcontractor shall carefully examine such other work, determine whether it is in fit, ready and suitable condition for the proper and accurate performance of the Work hereunder, use all means necessary to discover any defects in such other work, and before proceeding with the Work hereunder, report promptly any such improper conditions and defects to Contractor in writing and allow Contractor a reasonable time to have such improper conditions and defects remedied. Should Subcontractor fail to comply with the requirements of this Article, Subcontractor shall bear all costs incurred by Contractor, Owner and other subcontractors, and shall not be entitled to extensions of time and adjustments in Price, that could have been avoided by Subcontractor's compliance with the requirements of this Article.

Interpretation of Plans & Specifications

ARTICLE VIII. The Work hereunder is to be performed and furnished under the direction and to the satisfaction of both the Architect and Contractor. The decision of the Architect as to the true construction, meaning and intent of the Plans and Specifications shall be final and binding upon the parties hereto. Contractor will furnish to the Subcontractor such additional information and Plans as may be prepared by the Architect to further describe the Work to be performed and furnished by the Subcontractor and the Subcontractor shall conform to and abide by the same.

The Subcontractor shall not make any changes, additions and/or omissions in the Work except upon written order of Contractor as provided in Article IX hereof.

Change Orders, Additions & Deductions **ARTICLE IX.** Contractor reserves the right, from time to time, whether the Work or any part thereof shall or shall not have been completed, to make changes, additions and/or omissions in the Work as it may deem necessary, upon written order to the Subcontractor. The value of the work to be changed, added or omitted shall be stated in said written order and shall be added to or deducted from the Price.

The value of the work to be changed, added or omitted shall be determined by the lump sum or unit prices, if any, stipulated herein for such work. If no such prices are stipulated, such value shall be determined by whichever of the following methods or combination thereof Contractor may elect:

- (a) By adding or deducting a lump sum or an amount determined by a unit price agreed upon between the parties hereto.
- (b) By adding (1) the actual net cost to the Subcontractor of labor in accordance with the established rates, including required union benefits, premiums the Subcontractor is required to pay for workmen's compensation and liability insurance, and payroll taxes on such labor, (2) the actual cost to the Subcontractor of materials and equipment and such other direct costs as may be approved by Contractor less all savings, discounts, rebates and credits, (3) an allowance of SDS for overhead on items (1) and (2) above, and (4) an allowance of SDS for profit on items (1), (2) and (3) above.

Should the parties hereto be unable to agree as to the value of the work to be changed, added or omitted, the Subcontractor shall proceed with the work promptly under the written order of Contractor from which order the stated value of the work shall be omitted, and the determination of the value of the work, if not resolved in the normal course, shall be addressed pursuant to the dispute resolution procedures in accordance with Article XIX.

In the case of omitted work Contractor shall have the right to withhold from payments due or to become due to the Subcontractor an amount which, in Contractor's opinion, is equal to the value of such work until such time as the value thereof is determined by agreement or by the Architect as hereinabove provided.

All changes, additions or omissions in the Work ordered in writing by Contractor shall be deemed to be a part of the Work hereunder and shall be performed and furnished in strict accordance with all of the terms and provisions of this Agreement and the other Contract Documents. Subcontractor accepts the responsibility to keep its surety informed of all such modifications to its contract. The obligations of Subcontractor and Subcontractor's Surety shall not be reduced, waived or adversely affected by the issuance of such change orders, additions or deductions even if Subcontractor fails to inform Surety of same and Contractor shall not be required to obtain consent of the Surety to such modifications.

Subcontractor shall provide Contractor with written notice of any circumstance or direction given by Contractor which Subcontractor may regard as a change, addition and/or omission or which may otherwise serve as the basis for a request for an increase in Price or extension of time within 5 days of the receipt of the direction or the occurrence of the event giving rise to such a request. Such written notice shall provide a full explanation of the circumstances or direction and the extent of the increase and extension sought, including a detailed breakdown and analysis supporting such request. Failure of the Subcontractor to provide such written notice shall constitute a waiver of Subcontractor's right to any such increase or extension.

Subcontractor acknowledges that the General Contract may include provisions whereby Contractor is required to provide notice, information, reports and analyses in the event that Contractor intends to pursues or which may affect Contractor's right's to an extension of time or increase in Contractor's price to the Owner, whether by way of change order or otherwise, and that the failure to provide such notice, information, reports and analyses may result in a waiver or forfeiture of the right to such an extension or increase. Accordingly, Subcontractor agrees that Subcontractor shall provide all such notices, information, reports and analyses to Contractor, in the same form, content and manner as Contractor is required to provide to Owner under the General Contract in the event that Subcontractor intends to pursue an extension of time or increase in Price. Subcontractor shall provide all such notices, information, reports and analyses to Contractor not later than 3 business days prior to the time by which Contractor must submit corresponding notice, information, reports and analyses to Owner so that Contractor can pursue like extensions and /or increases in Contractor's price from the Owner. Subcontractor acknowledges that its failure to comply with the terms of this paragraph may result in the loss of or prejudice to Contractor's ability to receive adjustments and extensions time from Owner. Subcontractor therefore agrees that it shall be deemed to have waived and forfeited all such rights in the event that it fails to provide notice, information, reports and analyses to Contractor as required by this Article. The terms and provisions of the paragraph are neither intended to relieve Subcontractor of the obligation to provide timely notices, information, reports and analyses, nor to extend shorter durations, required by the Contract Documents.

Notwithstanding the forgoing, the Subcontractor agrees that it shall not be entitled to nor claim any cost reimbursement, compensation, damages or extensions of time attributable to any changes, additions and/or omissions directed by Contractor except to the limited extent that Contractor has actually recovered corresponding cost reimbursement, compensation, damages or extensions of time from the Owner under the Contract Documents for such changes, additions and/or omissions and then only to the extent of the amount, if any, which Contractor on behalf of the Subcontractor, actually received from the Owner on account of such delay, obstruction, hindrance or interference. The preceding sentence shall not apply in a situation in which Contractor directed the performance of changes, additions and/or omissions by Subcontractor notwithstanding express language in the General Contract clearly indicating that Contractor is not entitled to recover a corresponding cost reimbursement, compensation, damages or extensions of time from the Owner.

Inspection & Defective Work

ARTICLE X. The Subcontractor shall at all times provide sufficient, safe and proper facilities for the inspection of the Work by Contractor, the Architect, and their authorized representatives in the field, at shops or at any other place where materials or equipment for the Work are in the course of preparation, manufacture, treatment or storage. The Subcontractor shall, within twenty-four (24) hours after receiving written notice from Contractor to that effect, proceed to take down all portions of the Work and remove from the premises all materials whether worked or unworked, which the Architect, Contractor, Owner or any of its design consultants shall condemn as unsound, defective or improper or as in any way failing to conform to this Agreement or the Plans, Specifications or other Contract Documents, and the Subcontractor, at its own cost and expense, shall replace the same with proper and satisfactory work and materials and make good all work damaged or destroyed by or as a result of such unsound, defective, improper or nonconforming work or materials or by the taking down, removal or replacement thereof.

Failure to Prosecute, etc.

ARTICLE XI. Should the Subcontractor at any time, whether before or after final payment or completion of the Work, refuse or neglect to supply a sufficiency of skilled workers or materials of the proper quality and quantity, or fail in any respect to prosecute the Work with promptness and diligence, or cause by any act or omission the stoppage, impede, obstruct, hinder or delay of or interference with or damage to the work of Contractor or of any other contractors or subcontractors on the Project, or fail in the performance of any of the terms and provisions of this Agreement or of the other Contract Documents, or should the Architect, Contractor, Owner or any of its design consultants, determine that the Work or any portion thereof is not being performed in accordance with the Contract Documents, or should there be filed by or against the Subcontractor a petition in bankruptcy or for an arrangement or reorganization, or should the Subcontractor become insolvent or be adjudicated a bankrupt or go into liquidation or dissolution, either voluntarily or involuntarily or under a court order, or make a general assignment for the benefit of creditors, or otherwise acknowledge insolvency, then in any of such events, each of which shall constitute a default hereunder on the Subcontractor's part, Contractor shall have the right, in addition to any other rights and remedies provided by this Agreement and the other Contract Documents or by law, at one time or in phases at Contractor's discretion, after three (3) days written notice to the Subcontractor mailed or delivered to the last known address of the latter, (a) to perform and furnish through itself or through others any such labor or materials for all or any portion of the Work and to deduct the cost thereof from any monies due or to become due to the Subcontractor under this Agreement, (b) to terminate the employment of the Subcontractor for all or any portion of the Work, and/or (c) enter upon the premises and take possession, for the purpose of completing all or any portion of the Work,, of all materials, equipment, scaffolds, tools, appliances and other items thereon as Contractor may select, all of which the Subcontractor hereby authorizes Contractor to employ and/or communicate with any person or persons in connection with the completion of the Work and/or to provide all the labor, services, materials, equipment and other items required therefor. In case of Contractor taking action under this Article, including termination of the employment of the Subcontractor, the Subcontractor shall not be entitled to receive any further payment under this Agreement until the Work shall be wholly completed to the satisfaction of Contractor, Owner and the Architect and shall have been accepted by them, at which time, if the unpaid balance of the amount to be paid under this Agreement shall exceed the cost and expense incurred by Contractor in completing the Work, such excess shall be paid by Contractor to the Subcontractor; but if such cost and expense shall exceed such unpaid balance, then the Subcontractor and its surety, if any, shall pay the difference to Contractor. Such cost and expense shall include, not only the cost of completing the Work to the satisfaction of Contractor and the Architect and of performing and furnishing all labor, services, materials, equipment, and other items required therefore, but also all losses, damages, costs and expenses, (including legal fees and disbursements incurred in connection with reprocurement, in defending claims arising from such default and in seeking recovery of all such cost and expense from the Subcontractor and/or its surety), and disbursements sustained, incurred or suffered by reason of or resulting from the Subcontractor's default. Should Contractor take action by effectuating the provisions of this paragraph, and should it subsequently be determined that such action, including a termination effectuated by the terms of this Article, was improper, such termination shall be treated as a termination for convenience pursuant to Article XXI below. Subcontractor hereby transfers and assigns to Contractor the all rights under agreements that Subcontractor may have with subcontractors to Subcontractor, suppliers and vendors in connection with the Work or the Project, which transfers and assignments may be accepted at Contractor's sole discretion in the event that Contractor has taken action under this Article. Subcontractor agrees to fully cooperate with Contractor in pursuing Contractor's rights hereunder and that Contractor shall not be required to defer or delay action taken pursuant to this Article during the pendency of any review, investigation, evaluation or assessment by Subcontractor or its surety.

It is recognized that if the Subcontractor institutes or has instituted against it a case under Title 11 of the United States Code (Bankruptcy Code), such event could impair or frustrate the Subcontractor's performance of this Agreement. Accordingly, it is agreed that upon the occurrence of any such event, Contractor shall be entitled to request of Subcontractor or its trustee or other successor adequate assurances of future performance. Failure to comply with such request within ten (10) days of delivery of the request shall entitle Contractor, in addition to any other rights and remedies provided by this Agreement or by law, to terminate this Agreement. Pending receipt of adequate assurances of performance and actual performance in accordance herewith, Contractor shall be entitled to perform and furnish through itself or through others any such labor, materials or equipment for the Work as may be necessary to maintain the progress of the Work and to deduct the cost thereof from any monies due or to become due to the Subcontractor under this Agreement. In the event of such bankruptcy proceedings, this Agreement shall terminate if the Subcontractor rejects this Agreement or if there has been a default and the Subcontractor is unable to give adequate assurance that it will perform as provided in this Agreement or otherwise is unable to comply with the requirements for assuming this Agreement under the applicable provisions of the Bankruptcy Code.

Subcontractor, in addition to any other rights available to Contractor hereunder, agrees to indemnify, hold harmless and defend Contractor from and against any and all claims, demands, suits, damages, judgments, liabilities, costs and expenses (including legal fees and disbursements) arising out of or related to Subcontractor's breach of any term of the Agreement.

Loss or Damage to Work **ARTICLE XII.** Contractor shall not be responsible for any loss or damage to the Work to be performed and furnished under this Agreement, however caused, until after final acceptance thereof by Contractor and the Architect, nor shall Contractor be responsible for loss of or damage to materials, tools, equipment, appliances or other personal property owned, rented or used by the Subcontractor or anyone employed by it in the performance of the Work, however caused.

Builder's Risk Insurance

Contractor or Owner shall effect and maintain All-Risk Builder's Risk insurance in accordance with the Contract Documents upon all Work, materials and equipment incorporated in the Project and all materials and equipment on or about the Premises intended for permanent use or incorporation in the Project or incident to the construction thereof, the capital value of which is included in the cost of the Work, but not including any contractors' machinery, tools, equipment or other personal property owned, rented or used by the Subcontractor or anyone employed by it in the performance of the Work.

A loss insured under Contractor or the Owner's All-Risk Builder's Risk insurance shall be adjusted by the Contractor or the Owner as fiduciary and made payable to Contractor or the Owner as fiduciary for the Insureds, as their interests may appear. Contractor or the Owner shall pay Subcontractors their just shares of insurance proceeds received by Contractor or the Owner, and by appropriate agreements, written where legally required for validity, and shall require Subcontractors to make payments to their subcontractors in a similar manner.

Cleaning Up

ARTICLE XIII. The Subcontractor shall, at its own cost and expense, (1) keep the Premises free at all times from all waste materials, packaging materials and other rubbish accumulated in connection with the execution of its Work by collecting and depositing said materials and rubbish in locations or containers as designated by Contractor from which it shall be removed by Contractor from the Premises without charge, (2) clean and remove from its own Work and from all contiguous work of others any soiling, staining, mortar, plaster, concrete or dirt caused by the execution of its Work and make good all defects resulting therefrom (3) at the completion of its Work in each area, perform such cleaning as may be required to leave the area "broom clean", and (4) at the entire completion of its Work, remove all of its tools, equipment, scaffolds, shanties and surplus materials. Should the Subcontractor fail to perform any of the foregoing to Contractor's satisfaction, Contractor shall have the right to perform and complete such work itself or through others and charge the cost thereof to the Subcontractor.

Ethics & Compliance

ARTICLE XIV. The Subcontractor shall obtain and pay for all necessary permits and licenses pertaining to the Work and shall comply with all Federal, State, Municipal and local laws, ordinances, codes, rules, regulations, standards, orders, notices and requirements, including but not limited to those relating to safety, storm water management, discrimination in employment, fair employment practices, immigration laws or equal employment opportunity, and whether or not provided for by the Plans, Specifications, General Conditions, or other Contract Documents, without additional charge or expense to Contractor and shall also be responsible for and correct, at its own cost and expense, any violations thereof resulting from or in connection with the performance of its Work. Each requisition for payment shall constitute a representation and warranty that Subcontractor is in compliance with applicable law.

The Subcontractor shall at any time upon demand furnish such proof as Contractor may require showing such compliance and the correction of such violations. The Subcontractor agrees to save harmless and indemnify Contractor from and against any and all loss, injury, claims, actions, proceedings, liability, damages, fines, penalties, costs and expenses, including legal fees and disbursements, caused or occasioned directly or indirectly by the Subcontractor's failure to comply with any of said laws, ordinances, rules, regulations, standards, orders, notices or requirements or to correct such violations therefore resulting from or in connection with the performance of Work.

The Immigration and Nationality Act as amended by the Immigration Reform and Control Act of 1986 (IRCA) makes it illegal for employers to knowingly hire persons who are not authorized to work in the United States. For all employees, employers are required to complete an Employment Eligibility Verification form I-9 which requires the prospective employee to produce documentation that establishes identity and employment eligibility. For more information visit www.uscis.gov, or speak to your attorney. Each subcontractor is solely responsible for properly completing Employment Eligibility Verifications for their own employees.

Subcontractor acknowledges represents and warrants that Subcontractor is aware of and understands IRCA, that Subcontractor is in compliance with IRCA, and that Subcontractor is not knowingly employing workers who are not authorized to work in the United States. Subcontractor agrees that Subcontractor will not employ any worker under this subcontract for whom Subcontractor has not completed and maintained I-9 verification. Subcontractor agrees that if Subcontractor acquires knowledge (constructive or otherwise, including receipt of a "no match" letter from Social Security Administration) indicating that one of Subcontractor's workers on this project may not be authorized to work in the United States, despite Subcontractor having conducted a facially valid I-9 verification, that Subcontractor will exercise due diligence as required by law to confirm authorization status and take appropriate action which may include termination of employment. Subcontractor represents and warrants that they will not subcontract to or utilize labor sources that it knows or has reason to know violate IRCA.

Contractor has a longstanding reputation for honesty and integrity in its business dealings and for its corporate policies promoting lawful and ethical behavior. Contractor is committed to upholding that reputation and has adopted a Standard of Business Conduct Policy Statement which governs the actions of all of its employees. Pursuant to that Policy Statement, Contractor employees are prohibited from accepting bribes or kickbacks in any form and, further, are prohibited from accepting goods or services provided by a subcontractor, supplier or vendor for the personal benefit of the employee, his or her relatives, or any entity in which the employee or his or her relatives has a personal interest. This prohibition includes, but is not limited to; work performed on an employee's residence and applies regardless of whether the beneficiary of the goods or services pays for them. Therefore, if the Subcontractor offers or provides a bribe or kickback to any employee, or offers or provides goods or services to any employee, his or her relatives, or any entity in which the employee or his or her relatives has a financial interest, the Subcontractor will be considered to be in material breach of this Subcontract. Subcontractor undertakes the commitment to advise Contractor of any action by any entity or person associated with the project that Subcontractor believes violates any applicable law, rule or regulation. Subcontractor's violation of any of the foregoing shall be considered as Subcontractor's failure to perform its obligations under the terms and conditions of this Agreement. Such failure shall be considered adequate and justifiable grounds for Contractor to effectuate its rights and remedies under the provisions of Article XI of this Agreement.

The provisions of this Article must be incorporated into any subcontract Subcontractor enters into in connection with the performance of the Work.

Harassment

ARTICLE XV. It is the goal of Contractor to promote a work environment at the Project that is free from harassment of any kind. Contractor has ZERO TOLERANCE for harassment, including harassment on the basis of race, sex, gender, gender identity, gender expression, transgender status, sexual orientation, pregnancy, childbirth and other pregnancy-related conditions, color, national origin, ancestry, age, religious creed, citizenship, marital status (including registered domestic partners), parental

status, physical disability, mental disability, medical condition, genetic information, military or veteran status (including protected veteran status), or any other characteristic or status protected by law. Subcontractor agrees to be bound by the Policy Statement on Harassment referenced in Article XXIII below, and any violation or suspected violation of such policy by Subcontractor or any of its officers, agents, servants, employees, subcontractors or suppliers shall be considered as Subcontractor's failure to perform its obligations under the terms and conditions of this Agreement. Such failure shall be considered adequate and justifiable grounds for Contractor to effectuate its rights and remedies under the provisions of Article XI of this Agreement. Subcontractor shall actively promote a harassment-free work environment among its officers, agents, servants, employees, subcontractors, and suppliers.

Labor to be Employed

ARTICLE XVI. The Subcontractor shall not employ workers, means, materials or equipment or assign work in any manner which may cause strikes, work stoppages or any disturbances by workers employed by the Subcontractor, Contractor or other contractors or subcontractors on or in connection with the Work or the Project or the location thereof. The Subcontractor agrees that all disputes as to jurisdiction of trades shall be adjusted in the manner or by a process that Contractor may require, including, if Contractor so requires, in accordance with any plan for the settlement of jurisdictional disputes to which Contractor may be bound in connection with the Project which may be in effect either nationally or in the locality in which the Work is being done. Subcontractor agrees that it shall assign work consistent with any such plan and shall be bound and abide by all such adjustments and settlements of jurisdictional disputes, provided that the provisions of this Article shall not be in violation of or in conflict with any provisions of law applicable to the settlement of such disputes. Should the Subcontractor fail to carry out or comply with any of the foregoing provisions, Contractor shall have the right, in addition to any other rights and remedies provided by this Agreement or the other Contract Documents or by law, after three (3) days written notice mailed or delivered to the last known address of the Subcontractor, to terminate this Agreement or any part thereof or the employment of the Subcontractor for all or any portion of the Work, and, for the purpose of completing the Work, to enter upon the Premises and take possession, in the same manner, to the same extent and upon the same terms and conditions as set forth in Article XI of this Agreement.

The Project or General Contract may be subject to Federal prevailing wage requirements, such as the Davis-Bacon Act or the Walsh-Healy Act, or other similar laws, statutes or requirements at a state or local level. Subcontractor shall strictly comply with all applicable prevailing wage laws, statutes or requirements and shall maintain such records as necessary to establish the amount of wages and other compensation paid to workers in connection with the Project and shall submit to Turner, as a condition for payment, certified payrolls in the form prescribed by any such laws, regulations or requirements. Subcontractor expressly agrees that the indemnification obligations set forth in this Agreement shall apply to any violations by Subcontractor of any such laws, statutes or regulations and the failure to maintain records as required herein.

Taxes & Contributions

ARTICLE XVII. The Subcontractor for the Price herein provided, hereby accepts and assumes exclusive liability for and shall indemnify, protect and save harmless Contractor and the Owner from and against the payment of:

- All contributions, taxes or premiums (including interest and penalties thereon) which may be payable under the Unemployment Insurance Law of any State, Federal Social Security Act, Federal, State, County and/or Municipal Tax Withholding Laws, or any other law, measured upon the payroll of or required to be withheld from employees, by whomsoever employed, engaged in the Work to be performed and furnished under this Agreement.
- 2. All sales, use, personal property and other taxes (including interest and penalties thereon) required by any Federal, State, County, Municipal or other law to be paid or collected by the Subcontractor or any of its subcontractors or vendors or any other person or persons acting for, through or under it or any of them, by reason of the performance of the Work or the acquisition, ownership, furnishing or use of any materials, equipment, supplies, labor, services or other items for or in connection with the Work.
- 3. All pension, welfare, vacation, annuity and other union benefit contributions payable under or in connection with labor agreements with respect to all persons, by whomsoever employed, engaged in the Work to be performed and furnished under this Agreement.

In furtherance of, and in addition to the agreements, duties obligations and responsibilities of the Subcontractor with respect to the payment of sales, use, personal property and other taxes set forth in Articles IV and XVII of this Agreement, the Subcontractor agrees to reimburse and otherwise indemnify Contractor and the Owner for any expenses, including legal fees and litigation arising from, or related to the Subcontractor's failure to pay any sales, use, personal property or other taxes based upon labor, services, materials, equipment or other items acquired, performed, furnished or used for or in connection with the Work.

Patents

ARTICLE XVIII. The Subcontractor hereby agrees to indemnify, protect and save harmless Contractor and the Owner from and against any and all liability, loss or damage and to reimburse Contractor and the Owner for any expenses, including legal fees and disbursements, to which Contractor and the Owner may be put because of claims or litigation on account of infringement or alleged infringement of any letters patent or patent rights by reason of the Work or materials, equipment or other items used by the Subcontractor in its performance.

Disputes

ARTICLE XIX. The parties recognize that problems and disputes between them may occur and that it is preferable for them to reach an amicable resolution of same without the need to resort to formal dispute resolution procedures. In that regard, they each pledge to participate in good faith in voluntary and non-binding Alternate Dispute Resolution (ADR) procedures in the form of a mediation conducted by a neutral mediator, or such other form as the parties otherwise agree, as a condition precedent to addressing the dispute in any other forum unless Contractor agrees in writing to waive this condition precedent. The procedure for requesting such an ADR shall begin with a written notice of request for ADR delivered by one party hereto to the other. Within 14 days following the receipt of such notice, lead representatives of Subcontractor and Contractor shall meet in an effort to resolve the dispute. In the event that the dispute remains unresolved after the lead representatives meeting, a meeting shall take place between the President of Subcontractor and the General Manager or Operations Manager of Contractor within 20 days thereafter. In the event that the dispute remains unresolved after the President/Manager meeting, the parties shall proceed with ADR procedures described in the Article. However, in the event that such disputes are not resolved by mediation or another ADR procedure as Contractor and the Subcontractor may agree then such disputes shall be resolved any of following forums selected at Contractor's sole discretion either (1) the forum pursuant to which disputes between the Owner and Contractor are to be resolved under the terms of the General Contract, (2) arbitration administered by the American Arbitration Association under the rules pertinent to construction disputes then applicable or (3) in litigation. Furthermore, the Subcontractor agrees that Contractor shall have the exclusive right to join the Subcontractor as a party in any dispute resolution procedure (including without limitation ADR procedures, binding arbitration or other judicial or non-judicial proceeding) in which Contractor may be involved arising out of

or in connection with the Project, together with such other subcontractors or parties as may be appropriate, where in the judgment of Contractor the issues in dispute are related to the work or performance of the Subcontractor. In the event that relevant law limits or precludes Contractor's sole discretion in selecting the forum, then the dispute shall be resolved in litigation, unless the Subcontractor is to be joined by Contractor in a proceeding with Owner, in which case the forum shall be as stated in the General Contract. Furthermore, the Subcontractor expressly agrees to waive its right to trial by jury in any dispute involving Contractor and or Contractor's surety. Subcontractor further agrees that in the event that it suffers damages, cost or expenses or otherwise intends to pursue a recovery that arises out of or relates to the performance of work by another subcontractor to or under Contractor, Subcontractor's sole remedy shall be as against that responsible subcontractor and Subcontractor shall not pursue a remedy from Contractor.

Subcontractor shall continue with the diligent performance of Work pursuant to this Subcontract and follow and abide by directions and instructions issued by Contractor during the pendency of any dispute, including dispute resolution procedures, ADR procedures, arbitration or litigation.

All claims, suit or demands by Subcontractor as against Contractor or Owner shall be brought within the earlier of one year following Subcontractor's achieving substantial completion for the Subcontractor's Work or within one year of Contractor's notice of default in the event that Contractor has taken any action in accordance with Article XI, and Subcontractor hereby agrees that all relevant statutes of limitations shall be deemed reduced to such time period, to the fullest extent permitted by law.

Mechanics' Liens & Claims

If any subcontractor, laborer, materialman or supplier of the Subcontractor or any other person directly or indirectly acting for, through or under it or any of them files or maintains a lien or claim, whether a mechanics' lien or an attested account or otherwise, a mechanic's lien or claim against the Project or Premises or any part thereof or any interests therein or any improvements thereon or against any monies due or to become due from the Owner to Contractor or from Contractor to the Subcontractor, for or on account of any work, labor, services, materials, supplies, equipment or other items performed or furnished for or in connection with the Work or under any change order or supplemental agreement for extra or additional work in connection with the Project, the Subcontractor agrees to cause such liens and claims to be satisfied, removed or discharged at its own expense by bond, payment or otherwise within ten (10) days from the date of the filing thereof, and upon its failure to do so Contractor shall have the right, in addition to all other rights and remedies provided under this Agreement and the other Contractor Documents or by law, to cause such liens or claims to be satisfied, removed or discharged by whatever means Contractor chooses, at the entire cost and expense of the Subcontractor (such cost and expense to include legal fees and disbursements). The Subcontractor agrees to indemnify, protect and save harmless Contractor and the Owner from and against any and all such liens and claims and actions brought or judgments rendered thereon, and from and against any and all loss, damages, liability, costs and expenses, including legal fees and disbursements, which Contractor and/or the Owner may sustain or incur in connection therewith.

Assignment & Subletting

ARTICLE XX. To the fullest extent permitted by law, Subcontractor agrees that it shall not assign, sell, transfer, delegate or encumber any rights, duties or obligations arising under this Agreement including, but not limited to, any right to receive payments hereunder, without the prior written consent of Contractor in its sole discretion and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments. In the event Subcontractor assigns, sells, encumbers or otherwise transfers its right to any monies due or to become due under this Agreement as security for any loan, financing or other indebtedness (hereafter "Assignment"), notification to Contractor of such Assignment must be sent by certified mail, return receipt requested, to the Procurement Manager in charge of the business unit responsible for the construction of the Project and the Assignment shall not be effective as against Contractor until Contractor provides its written consent to such Assignment. Subcontractor agrees that any such Assignment shall not relieve the Subcontractor of any of its agreements, duties, responsibilities or obligations under this Agreement and the other Contract Documents and shall not create a contractual relationship or a third party beneficiary relationship of any kind between Contractor and such assignee or transferee. Subcontractor further agrees that all of Contractor's defenses and claims arising out of this Agreement with respect to such Assignment are reserved unless expressly waived in writing by a duly authorized corporate officer. Subcontractor hereby agrees to indemnify and hold harmless Contractor from and against any and all loss, cost, expense or damages Contractor or Owner has or may sustain or incur in connection with such Assignment.

Termination for Convenience

ARTICLE XXI. Contractor shall have the right at any time and for any reason, by written notice to the Subcontractor, to terminate this Agreement without cause and require the Subcontractor to cease work hereunder. In the event of such a termination for convenience, the Subcontractor shall be entitled to payment pursuant to the terms of the Agreement only for all Work performed as of the date of termination, together with reasonable costs of demobilization and such other reasonable costs as may be encountered by the Subcontractor and directly attributable to such termination provided that such amount shall be reduced by all amounts for which Subcontractor is liable or responsible hereunder. However, the Subcontractor shall only be entitled to profit on that portion of the Work actually performed and approved for payment to the date of termination together with retainages held upon payments made prior thereto. Subcontractor waives any claim for loss of anticipated profits or other damages in the event Contractor exercises this clause.

Guarantees

ARTICLE XXII. The Subcontractor hereby guarantees the Work to the full extent provided in the Plans, Specifications, General Conditions, Special Conditions and other Contract Documents.

The Subcontractor shall expeditiously remove, replace and/or repair at its own expense and at the convenience of the Owner any faulty, defective or improper Work, materials or equipment existing or discovered within one (1) year from the date of the acceptance of the Project as a whole by the Architect and the Owner or for such longer period as may be provided in the Plans, Specifications, General Conditions, Special Conditions or other Contract Documents.

Without limiting the generality of the foregoing, the Subcontractor warrants to the Owner, the Architect and Contractor, and each of them, that all materials and equipment furnished under this Agreement will be of first class quality and new, unless otherwise required or permitted by the other Contract Documents, that the Work performed pursuant to this Agreement will be free from defects and that the Work will strictly conform with the requirements of the Contract Documents. Work not conforming to such requirements, including substitutions not properly approved and authorized, shall be considered defective. All warranties contained in this Agreement and in the Contract Documents shall be in addition to and not in limitation of all other warranties or remedies required and/or arising pursuant to applicable law. Failure of Subcontractor to honor and satisfy the foregoing and any other warranties or guarantees required of the Subcontractor under the Contract Documents, shall constitute a default by Subcontractor.

Accident Prevention & Other Policies

ARTICLE XXIII. The Subcontractor agrees that the prevention of accidents to workmen and property engaged upon or in the vicinity of the Work is its responsibility. The Subcontractor agrees to comply with all Federal, State, Municipal and local laws, ordinances, rules, regulations, codes, standards, orders, notices and requirements concerning safety as shall be applicable to the Work, including, among others, the Federal Occupational Safety and Health Act of 1970, and the Clean Water Act, as amended, and all standards, rules, regulations and orders which have been or shall be adopted or issued thereunder, and with the safety standards established or imposed during the progress of the Work by Contractor. When so ordered, the Subcontractor shall stop any part of the Work which Contractor deems potentially unsafe, noncompliant or in violation until corrective measures satisfactory to Contractor have been taken, and the Subcontractor agrees that it shall not have nor make any claim for damages growing out of such stoppages. Should the Subcontractor neglect to take such corrective measures, Contractor may do so at the cost and expense of the Subcontractor and may deduct the cost thereof from any payments due or to become due to the Subcontractor. Failure on the part of Contractor to stop unsafe practices shall in no way relieve the Subcontractor of its responsibility therefor.

This Subcontractor acknowledges the receipt of Contractor's "Corporate Safety, Health and Environmental Policy", "Substance Abuse Policy", "Equal Employment Opportunity" policy and "Policy Statement on Harassment." Subject to applicable law this Subcontractor further agrees to be bound to these policies as a part of the supplemental and special conditions to the contract for construction of the project, including any amendments or modifications of such policies that Contractor may issue at any time. Subcontractor further acknowledges that Contractor endeavors to employ on its projects robust programs with respect to safety and storm water management, as well as compliance with relevant laws and regulations, including, without limitation, OSHA and the Clean Water Act. Such programs may include aggressive measures and requirements, such as reporting, training of personnel and inspections that may be considerably above and beyond minimum standards. Subcontractor agrees to comply with any and all requirements Contractor may impose in connection with such programs and policies, whether as part of this Subcontract or hereafter, and the cost and expense of such compliance shall be borne by the Subcontractor.

In the event that hazardous substances of a type of which an employer is required by law to notify its employees are being used or stored on the site by the Subcontractor, the Subcontractor's subcontractors and anyone directly or indirectly employed or otherwise retained by them or either of them, the Subcontractor shall immediately provide written notice of the chemical composition thereof (including, without limitation, a copy of the applicable Material Safety Data Sheet) to Contractor in sufficient time to permit compliance with such laws by Contractor, other subcontractors and other employers on the site. In the event that the Subcontractor encounters on the site material reasonably believed to be hazardous substances (including, without limitation, asbestos or polychlorinated biphenyl) which has not been rendered harmless, the Subcontractor shall immediately stop Work in the area affected and immediately report the condition to Contractor in writing. Work in the affected area shall resume when such hazardous substances have been rendered harmless or removed as determined by Contractor in its sole and absolute discretion. To the extent of Subcontractor's responsibilities hereunder, Subcontractor does indemnify and save harmless Contractor from and against any and all loss, injury, claims, actions, proceedings, liability, damages, fines, penalties, cost and expenses, including legal fees and disbursements, caused or occasioned directly or indirectly by the Subcontractor in regard to such hazardous substances.

Assumption of Liability & Indemnity

ARTICLE XXIV. Throughout this Agreement, the "Indemnified Party (ies)" means Contractor, the Owner, any party required to be indemnified pursuant to the General Contract, and any of their respective officers, agents, servants, or employees, and affiliates, parents and subsidiaries. Except as otherwise provided below, the Subcontractor hereby assumes the entire responsibility and liability for any and all actual or potential damage or injury of any kind or nature whatsoever (including death, business interruption or loss of use resulting therefrom) to all persons and entities, whether employees of the Subcontractor, or any tier of the Subcontractor or otherwise, or to all property or as a result of a perceived risk of such damage or injury (including actions taken to avoid or contain such actual or potential damage or injury, whether required or incurred by a public authority or otherwise); caused by, resulting from, arising out of or occurring in connection with the execution of the Work, or in preparation for the Work, or any extension, modification, or amendment to the Work by change order or otherwise. Should any claims for such actual or potential damage or injury (including death resulting therefrom) be made or asserted, whether or not such claims are based upon an Indemnified Party's alleged active or passive negligence or participation in the wrong or upon any alleged breach of any statutory duty or obligation on the part of an Indemnified Party, the Subcontractor agrees to indemnify and save harmless the Indemnified Party from and against any and all such claims and further from and against any and all loss, cost, expense, liability, damage, penalties, fines or injury, including legal fees and disbursements, that the Indemnified Party may directly or indirectly sustain, suffer or incur as a result thereof. However, this Article shall not be construed in any way to require the Subcontractor, its agents, and its employees to indemnify the Indemnified Party for damages because of property damage or bodily injury caused by or resulting from the Indemnified Party's own negligence. When the Subcontractor has the obligation to indemnify the Indemnified Party, the Subcontractor agrees to and does hereby assume, on behalf of the Indemnified Party, the defense of any action at law or in equity which may be brought against the Indemnified Party upon or by reason of such claims and to pay on behalf of the Indemnified Party, upon demand, the amount of any judgment that may be entered against the Indemnified Party in any such action. In the event that any such claims, loss, cost, expense, liability, damage, penalties, fines or injury arise or are made, asserted or threatened against the Indemnified Party, Contractor shall have the right to withhold from any payments due or to become due to the Subcontractor an amount sufficient in its judgment to protect and indemnify the Indemnified Party from and against any and all such claims, loss, cost, expense, liability, damage, penalties, fines or injury, including legal fees and disbursements, or Contractor in its discretion may require the Subcontractor to furnish a surety bond satisfactory to Contractor guaranteeing such protection, which bond shall be furnished by the Subcontractor within five (5) days after written demand has been made therefor.

In furtherance to but not in limitation of the indemnity provisions in this Agreement, Subcontractor hereby expressly and specifically agrees that its obligation to indemnify, defend and save harmless as provided in this Agreement shall not in any way be affected or diminished by any statutory or constitutional immunity it enjoys from suits by its own employees or from limitations of liability or recovery under worker's compensation laws, and Subcontractor expressly waives such constitutional and statutory immunity to the extent necessary to give effect to Subcontractor's indemnity obligations hereunder.

IN THE EVENT THAT THE LAW OF THE STATE IN WHICH THE PROJECT IS LOCATED (OR OTHER APPLICABLE LAW) LIMITS THE INDEMNITY OBLIGATIONS OF THE SUBCONTRACTOR, THEN THE INDEMNITY OBLIGATIONS OF THE SUBCONTRACTOR SHALL BE ENFORCED TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, AND THIS ARTICLE SHALL BE CONSTRUED TO CONFORM TO SUCH LAW.

Insurance

ARTICLE XXV. Insurance.

A. Required Insurance

Before commencing the Work, the following insurance coverages from insurance companies satisfactory to Contractor shall be in place and maintained until completion and final acceptance of the Work:

- 1. WORKERS' COMPENSATION in accordance with laws of the State in which the Work is situated, and EMPLOYERS' LIABILITY INSURANCE in the amount of \$1,000,000.
- 2. COMMERCIAL GENERAL LIABILITY INSURANCE INCLUDING COMPLETED OPERATIONS, CONTRACTUAL LIABILITY INSURANCE AGAINST THE LIABILITY ASSUMED HEREINABOVE, and including INDEPENDENT CONTRACTOR'S LIABILITY INSURANCE if the Subcontractor sublets to another all or any portion of the Work, Personal Injury Liability, Broad Form Property Damage (including completed operations), and Explosion, Collapse and Underground Hazards, with the following minimum limits:(Coverage shall be equivalent to current ISO Occurrence Form). No exclusions or restrictions for Crane usage will be permitted.

\$ SDS /Occurrence

\$ SDS General Aggregate

Subcontractor has elected to obtain the above insurance coverages set forth in paragraphs 1 and 2 above in the manner set forth in the Subcontractor Election A, B or C (with Subcontractor Election B having a further coverage option that is stated in, and may be elected by checking, Sub-Part B-1) that is checked below (Note: only one of Subcontractor Election A, B or C is to be selected, however Subpart B-1 may also be selected but only if Subcontractor Election B is selected):

SDS Subcontractor Election A). The above insurance coverages shall be provided by insurance companies selected by the Subcontractor. Contractor shall have the right, without limitation, to reject any insurance company selected by Subcontractor that has an A.M. Best rating of less than A or Standard and Poor's rating of less than AA or a Moody's rating of less than Aa. This insurance coverage shall include Products and Completed Operations coverage which Subcontractor agrees to maintain for a period equal to the statute of repose in the state in which the project is located. Subcontractor further agrees that it shall require each of its sub-subcontractors to provide the above insurance coverages subject to the terms and conditions set forth below. All costs are included in the Price and are to be paid by the Subcontractor.

or

SDS Subcontractor Election B). The above insurance coverages shall be provided through a consolidated insurance program that insures Subcontractor and its eligible lower tier subcontractors, which program has been made available to Subcontractor by Contractor, as described and with limits of liability, terms and conditions set forth in the Contract Documents, including, but not limited to, the CCIP Manual, and Subcontractor agrees to all terms and conditions therein, and makes all representations and warranties, associated therewith. Subcontractor acknowledges and agrees i) that insurance costs will be incurred to provide the above insurance coverages under the consolidated program; ii) that as opposed to Subcontractor including such insurance costs in the Price and paying such costs directly, the Price does not include insurance costs for the above insurance coverages, iii) that it is more convenient and efficient for Contractor to pay such insurance costs on Subcontractor's and Subcontractor's eligible lower tier subcontractor's behalf, and iv) that Contractor is authorized by Subcontractor to pay such insurance premiums on Subcontractor's behalf and Subcontractor's eligible lower tier subcontractor's behalf.

SDS Sub-Part B-1 to Subcontractor Election B. By checking this further election, Subcontractor agrees that it has selected Subcontractor Election B with respect to providing the above insurance coverages for eligible lower tier subcontractors engaged by or through Subcontractor to the extent permitted by the Contract Documents (including the CCIP Manual), however, Subcontractor agrees that as to Subcontractor itself, the above insurances will be provided by Subcontractor in accordance with the terms and conditions of Subcontractor Election A above. Accordingly, Subcontractor itself shall be deemed an "Excluded Party" with respect to the consolidated insurance program as described in the Contract Documents (including the CCIP Manual). Any other "Excluded Party" lower tier subcontractors (if applicable) with respect to the consolidated insurance program arranged by Contractor shall be required to procure their own insurance coverages at their expense. For Subcontractor's lower tier subcontractors that are not an "Excluded Party", the above insurance coverages shall be provided through the consolidated insurance program as described in Subcontractor Election B to the extent permitted by the Contract Documents (including the CCIP Manual).

Subcontractor represents and warrants that all amounts, information and data that Subcontractor and its lower tier subcontractors has provided or will provide in connection with CCIP applications and other related forms and documents, including estimated payroll and insurance costs, are, or shall be when submitted, true and accurate. Subcontractor represents and warrants that the amount of estimated unburdened payroll (payroll without benefits or overtime, unless the overtime portion is included as

required by the regulations of the State in which the project is located) actually used by Subcontractor and its eligible lower tier subcontractors in calculating the Price is \$ SDS ("Initial Payroll Estimate" or "Estimated On-Site Payroll") (if Sub-Part B-1 is elected, this amount only pertains to Subcontractor's eligible lower tier subcontractors). Subcontractor further agrees that all such amounts, data and information, including the estimated unburdened payroll amount used to calculate the Price, shall be to subject to audit and verification if Contractor or the CCIP Administrator elects to do so and Subcontractor agrees to cooperate fully and provide documents and other records requested in connection with such audit and verification and to cause its lower tier subcontractors to do the same. Subcontractor acknowledges that such amounts, information and data or such other amounts as verified in accordance with the CCIP Manual or through audit may be used to calculate final and interim cost adjustments to the Price and/or payments to Subcontractor (at Contractor's discretion) as described in the CCIP Manual. Contractor and the CCIP Administrator shall not be required to use any amount greater than the foregoing "Estimated On-Site Payroll" as the unburdened payroll amount when calculating such adjustments for Subcontractor and its lower tier subcontractors as described in the CCIP Manual.

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<u>SDS</u> Subcontractor Election C). The above insurance coverages shall be provided through an Owner Controlled Insurance Program (OCIP) as described and with limits of liability set forth in the Contract Documents and Subcontractor agrees to all terms, and makes all representations and warranties, associated therewith.

Subcontractor acknowledges that if any of the above insurance coverages are provided through a consolidated program arranged pursuant to Subcontractor Election B, Subcontractor Election B-1 or Subcontractor Election C, such coverage will not apply to any operations off of the premises (as defined in the CCIP Policy or Manual or OCIP Policy or Manual) and Subcontractor shall provide and maintain the above insurance coverages with respect to off-premises operations. Subcontractor further agrees that in the event that the insurance coverage provided by a consolidated insurance program (Subcontractor Election B or C) is cancelled prior to the completion of the Work, subcontractor shall provide the insurance coverage (set forth in paragraphs 1 and 2). Subcontractor further acknowledges and represents i) that it was not required to select any particular election provided for above and was free to choose Subcontractor Election A if it preferred to apply for and obtain insurance itself, ii) that Subcontractor has reviewed the other Subcontractor Elections available for this Project and has chosen the election selected above, and iii) that Subcontractor has satisfied itself that the Subcontractor Election checked above is preferable to Subcontractor for reasons of convenience, economics and/or coverage afforded.

3. COMMERCIAL AUTOMOBILE LIABILITY INSURANCE covering all owned, non-owned and hired automobiles used in connection with the Work, with the following minimum limits:

Combined Single Limit \$ SDS /accident

- ALL RISK CONTRACTOR'S EQUIPMENT INSURANCE COVERAGE shall be provided by all Subcontractors
 utilizing a crane or other equipment in connection with the performance of the Work and insured to the full value of
 equipment.
- B. Insurance Conditions

The following terms and conditions are applicable to all insurance:

Before commencing the Work, the Subcontractor shall furnish a certificate(s), satisfactory to Contractor from each insurance company showing that the above insurances (1, 2 Subcontractor Election A, 3 and CGL operations off of the premises under 2 Subcontractor Election B and C, and 4) are in force, stating policy numbers, dates of expiration, and limits of liability thereunder, and further providing that should any of the described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. Subcontractor shall advise Contractor of the amount of any Deductible or Self-Insured Retention that exists on any policies of insurance on the face of the certificates provided. Subcontractor shall be responsible for and agrees to pay and/or reimburse Contractor for any such Deductible or Self-Insured Retention.

The Subcontractor shall name the Indemnified Parties and such other entities as may be reasonably requested as additional insureds under the policies of insurance listed in paragraph A maintained by the Subcontractor (with the exception of Workers Compensation insurance), whether during the performance of the Work or any time thereafter. The coverage to be provided to the additional insureds shall be for all liability arising out of the Work. Subcontractor will submit a certificate of insurance and a copy of endorsements to the insurance policies listing all parties required to be named by Subcontractor as additional insureds. Subcontractor hereby waives all rights of recovery from Contractor and the Indemnified Parties, including but not limited to rights of subrogation, with respect to any matter, claim or suit that is required to be covered by insurance to be maintained by Subcontractor pursuant to the Contract Documents.

It is expressly agreed by and between Subcontractor and Contractor that all insurance, whether issued on a primary or excess basis, afforded the additional insureds shall be primary insurance to any other insurance available to the additional insureds and that any other insurance carried by the additional insureds shall be excess of all other insurance carried by the Subcontractor and shall not contribute with the Subcontractor's insurance. Subcontractor further agrees that the amount of insurance available to Contractor and the additional insureds shall be for the full amount of the loss up to policy limits of liability and shall not be limited to the minimum requirements of this Subcontract. Subcontractor further agrees to provide endorsements on its insurance policies that shall state the foregoing; however, Subcontractor's failure to provide such endorsement shall not affect Subcontractor's agreement hereunder.

If the Subcontractor fails to procure and maintain such insurance, if required, Contractor shall have the right, but not the obligation, to procure and maintain said insurance for and in the name of the Subcontractor and the Subcontractor shall pay the cost thereof and shall furnish all necessary information to make effective and maintain such insurance or at Contractor's option, Contractor may offset the cost incurred by Contractor against amounts otherwise payable to Subcontractor hereunder. Subcontractor further agrees that in the event of such failure to procure and maintain such insurance, Subcontractor shall be liable

for all amounts which would have been payable pursuant to the insurance required by this Subcontract. If, in Contractor's discretion, Contractor is concerned that any insurance company selected by Subcontractor has, at any time, faced diminished financial strength or that the insurance company may no longer provide the same level of financial strength (such as a decline in an A. M. Best, Standard and Poor's or Moody's rating), Contractor may require that Subcontractor provide replacement insurance coverage through an insurance company satisfactory to Contractor.

IN THE EVENT THAT THE LAW OF THE STATE IN WHICH THE PROJECT IS LOCATED (OR OTHER APPLICABLE LAW) LIMITS THE ADDITIONAL INSURED COVERAGE THAT CONTRACTOR MAY REQUIRE FROM SUBCONTRACTOR, THEN SUBCONTRACTOR SHALL BE REQUIRED TO OBTAIN ADDITIONAL INSURED COVERAGE TO THE FULLEST EXTENT OF COVERAGE AND LIMITS ALLOWED BY APPLICABLE LAW AND THIS CONTRACT SHALL BE READ TO CONFORM TO SUCH LAW.

ARTICLE XXVI. The Subcontractor shall furnish to Contractor a performance bond in the amount of \$SDS and a separate payment bond in the amount of \$SDS the form and contents of such bonds and the Surety or Sureties thereon to be satisfactory to Contractor. Such bonds shall be furnished to Contractor within ten (10) calendar days after Subcontractor has executed this Agreement or within such other time period agreed to by Contractor in writing. In the event Subcontractor fails to furnish such bonds to Contractor within the time period as hereinabove provided, such failure shall constitute a default under this Agreement in which event Contractor shall have all of the rights and remedies provided in Article XI hereof with respect to default on the part of Subcontractor including, without limitation, the right to terminate this Agreement.

Without limiting the responsibilities of Subcontractor and its Surety under the terms of this Agreement, Subcontractor and its Surety hereby agree to promptly pay all lawful claims of subcontractors, materialmen, laborers, persons, firms or corporations for labor or services performed or materials, supplies, machinery equipment, rentals, fuels, oils, tools, appliances, insurance and other items furnished, used or consumed in connection with the prosecution of the Work provided for in said Subcontract and any and all modifications thereof, and shall indemnify and save harmless Contractor of and from all liability loss, damage and expense, including interest, costs and attorney fees, which Contractor and/or its Surety may sustain by reason of Subcontractor's or its Surety's failure to do so.

Subcontractor and its Surety hereby agree to execute and deliver to Contractor when requested in connection with the issuance of change orders under this Agreement, Rider "A" amendments (or other documents as Contractor may require) increasing the amount (Penal Sum) of the Payment and Performance Bonds furnished by the Subcontractor. The reasonable premiums or other charges paid by the Subcontractor for the procurement of the Rider "A" amendments will be paid as a change to this Agreement.

Severability

ARTICLE XXVII. In the event that any provision or any part of a provision of this Agreement shall be finally determined to be superseded, invalid, illegal or otherwise unenforceable pursuant to applicable laws by an authority having jurisdiction, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provisions or parts of provisions of this Agreement, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

ARTICLE XXVIII. In the event that the Project or General Contract is subject to any federal, state, or local program(s) requiring Contractor or its subcontractors to meet certain goals or commitments with regard to the award of subcontracts or supply contracts to small and/or disadvantaged businesses, including but not limited to minority owned, woman owned, veteran owned and local businesses, then the provisions of this Article shall apply. Subcontractor acknowledges that: a) the Federal Small Business Program applies if the General Contract is a direct federal government contracts (*i.e.*, contracts awarded by a federal executive agency); b) the Disadvantaged Business Enterprise Program applies to projects that are funded in whole or in part with federal funds, including those funded through a grant awarded to the Owner; c) there are state and local programs that may apply to public projects that are funded by a state or local government; and d) these programs have different eligibility requirements as well as different methods of counting small business, minority, and other designated categories of participation at all subcontracting levels. Subcontractor agrees that it shall fully understand and comply with the rules and regulations of all such programs to the fullest extent applicable to the General Contract, Subcontract or this Agreement.

If Subcontractor is or otherwise satisfies the qualifications or requirements of any of the following, or if Subcontractor has in any way represented or given Contractor reason to believe that such is the case: (a) a small business under the Federal Small Business Program (i.e., a small business, a small disadvantaged business (SDB), a HUBZone small business, a service-disabled veteran-owned small business (SDVOSB), a veteran-owned small business (VOSB), or a women-owned small business (WOSB)) (hereinafter collectively referred to as an "SBE"); (b) a Disadvantaged Business Enterprise (DBE), Minority Owned Business Enterprise (MBE), or Woman Owned Business Enterprise (WBE), or the functional equivalent under federal, state, or local law (hereinafter collectively referred to as a "DBE"); or (c) a category or status designated by state or local authorities which otherwise classifies or designates certain business entities, collectively referred to as Local Business Enterprises (LBEs); then Subcontractor acknowledges, represents, agrees and warrants that: (i)Subcontractor in fact has such status and has obtained all required federal, state, or local certifications of such status; (ii) Contractor is relying upon such representation and status to fulfill any and all SBE, DBE or LBE goals or commitments Contractor has made to the Owner and/or a government agency or as otherwise required of Contractor; (iii) Subcontractor shall maintain its status as an SBE, DBE or LBE throughout the performance of the subcontract or purchase order; (iv) Subcontractor immediately shall notify Contractor if there is a change in Subcontractor's status as an SBE, DBE or LBE; (v) Contractor has engaged Subcontractor based on Subcontractor's representation that Subcontractor shall perform in such a manner that 100% of Subcontractor's Work and 100% of the Subcontract value shall be eligible for credit towards Contractor's goals and commitments with regard to the award of subcontracts to SBEs, DBEs and/or LBEs; (vi) Subcontractor shall perform in such a manner that Contractor shall be eligible to receive credit towards Contractor's goals and commitments regarding the award of subcontracts to SBEs, DBEs, and/or LBEs for 100% of the Subcontract value; (vii) Subcontractor will not engage in any effort or take any action that would prevent Contractor from receiving 100% credit; (viii) Subcontractor shall engage in a genuine commercially useful function as defined by law and shall not act as a pass-through to sub-subcontractors, suppliers, or vendors who are not SBEs, DBEs or LBEs; (ix) Subcontractor will not engage in any effort to create the appearance of SBE, DBE or LBE legitimacy or participation when in fact it does not exist; and (x) if Subcontractor awards any of its work through sub-subcontract, purchase order, or otherwise, to an SBE, DBE or LBE, then Subcontractor will do so only in a manner that does not affect the ability to receive credit as described above for 100% of the Subcontract value, including awarding same only to SBE, DBE or LBE sub-subcontractors, suppliers, or vendors if and to the extent necessary to achieve this result.

Bonds

Business Enterprise Compliance

- B. If Subpart A. of this Article is not applicable to Subcontractor, then Subcontractor acknowledges and agrees that the obligations and commitments assumed by Contractor with regard to the award of subcontracts to SBEs, DBEs and/or LBEs, have likewise been assumed by Subcontractor pursuant to this Agreement, including but not limited to meeting or exceeding the same percentage or other requirements or goals for each separate category of SBE, DBE and/or LBE employment in connection with the performance of the Work and satisfying all obligations and responsibilities with respect to reporting and documenting same.
- C. The provisions of this Subparagraph C. shall be applicable to all Subcontractors. If or when Subcontractor awards any of its work through sub-subcontract, purchase order, or otherwise, to an SBE, DBE or LBE, to the extent permitted or required by this Agreement, then Subcontractor further acknowledges, represents, agrees and warrants that Subcontractor shall: (i) verify that such SBE, DBE or LBE has such status and has obtained all required federal, state, or local certification of such status; (ii) require its SBE, DBE or LBE sub-subcontractors, suppliers, or vendors to maintain their status as an SBE, DBE or LBE throughout the performance of their sub-subcontract, purchase order, or other agreement; (iii) immediately notify Contractor if there is a change in a sub-subcontractor's, supplier's, or vendor's status as an SBE, DBE or LBE; (iv) require all SBE, DBE or LBE sub-subcontractors, suppliers, or vendors are not acting as a pass-through to another sub-subcontractor, supplier, or vendor who is not a SBE, DBE or LBE; and (vi) not permit a sub-subcontractor, supplier, or vendor to engage in any effort to create the appearance of SBE, DBE or LBE legitimacy or participation when in fact it does not exist.

Subcontractor agrees that: (i) Contractor, or its authorized representative, shall have access to and the right to examine and audit all of Subcontractor's records relating to Subcontractor's Work under this Agreement including, but not limited to, lowertier subcontracts, equipment leases, purchase orders, and other agreements with third parties; (ii) Subcontractor and its subsubcontractors, vendors and suppliers shall submit any forms, certifications or documents required by Contractor relating to participation on the Project, regardless of whether such forms or documents have been requested or required by the Owner, (iii) failure to honor and comply with any of the terms or conditions of this Article and/or its failure to comply with any applicable law relating to the award of subcontracts to SBEs, DBEs and/or LBEs shall constitute a material breach of this Agreement; (iv) submission by Subcontractor of a monthly requisition for payment or invoice shall constitute a certification by Subcontractor that each and every representation and warranty set forth in this Article is and remains truthful, accurate, and complete, and that Subcontractor is in full compliance with the terms and conditions of this Article, as of the date such requisition or invoice is submitted to Contractor; (v) Contractor may rely on these certifications in making payment to Subcontractor and in making like representations to others; (vi) Contractor shall have the right to withhold payment from Subcontractor if Contractor has reasonable grounds to believe that Subcontractor is not in full compliance with its obligations set forth in this Article; and (vii) that Subcontractor shall include a provision in all agreements with its sub-subcontractors, vendors and suppliers, whereby such subsubcontractors, vendors and suppliers acknowledge and agree to conduct their operations and affairs in a manner that ensures that Subcontractor is not in violation of any provision in this Article and to provide forms, certifications and documents as required by Contractor or this Article.

U.S. Government Prime Contract

ARTICLE XXIX. In the event that the General Contract under which this Subcontract is being issued is a General Contract between Contractor and the United States Government or an agency thereof, additional Federal Acquisition Regulation ("FAR") and agency FAR supplemental provisions are applicable to this Agreement. Such FAR and agency FAR supplemental provisions are contained on the attached document entitled "Federal Supplement" and such provisions are hereby incorporated by reference herein as if set forth at length herein. Subcontractor hereby ratifies and re-affirms its Subcontractor Certifications and Disclosures that Subcontractor signed and submitted with its proposal submitted earlier to Contractor and such Certifications and Disclosures are hereby incorporated herein by reference as if set forth at length herein.

ARTICLE XXX. This Agreement constitutes the entire agreement between the parties hereto. No oral representations or other agreements have been made by Contractor except as stated in the Agreement. This Agreement may not be changed in any way except as herein provided, and no term or provision hereof may be waived by Contractor except in writing signed by its duly authorized officer or agent. Subcontractor acknowledges and represents that it has completed and submitted to Contractor a prequalification questionnaire, that all statements therein and in the attachments to such questionnaire were true, accurate and complete, and remain true, accurate and complete, and that Contractor has relied on truthfulness, accuracy and completeness of such statements and the contents of the attachments thereto in deciding to enter into this Agreement. The marginal descriptions of any term or provision of this Agreement are for convenience only and shall not be deemed to limit, restrict or alter the content, meaning or effect thereof.

Entire Agreement

The said parties, for themselves, their heirs, executors, administrators, successors and assigns, do hereby agree to the full performance of all of the terms and provisions herein contained.

In Witness Whereof the parties to these presents have hereunto set their hands as of the day and year first above written.

	SUBCONTRACTOR		CONTRACTOR	
Ву:	<u>SDS</u>	Ву:	<u>SDS</u>	
Official title:	<u>SDS</u>			Vice-President



Building L.I.F.E

Living Injury Free Everyday

MESSAGE FROM THE PRESIDENT

We think of our workplace as "our house." In our house, we foster a caring environment. We want every person at Turner and every person who steps onto a Turner site to truly believe that they are contributing to, and have a sense of belonging to, something extraordinary. We are focused on maintaining and sustaining the Right Environment where people feel included, engaged, empowered, and connected.

Turner's safety culture is reflected in the principle of Building L.I.F.E.® (Living Injury Free Every Day) with an expectation that all projects provide the safest workplace possible for our employees, trade partners, clients, and members of the communities in which we work.

Turner's Building L.I.F.E.® safety program is a continuous improvement process with a focus on upstream risk avoidance and the activities which produce risk. The Building L.I.F.E.® process seeks to increase frontline worker engagement in the safety and planning processes through engaging those closest to the risk in the decision-making process. Building L.I.F.E.® is anchored by a focus on positive reinforcement and feedback on safe behaviors by everyone involved in the delivery of the project.

The Building L.I.F.E.® vision creates and sustains a culture which promotes an incident-free environment and provides the safest workplace possible to live injury free every day.

Building L.I.F.E.® Guiding Principles

- Injuries are preventable
- We will coach and practice safe behavior to live injury free every day
- We will take the necessary time to engage and properly plan work, to perform tasks safely
- We will perform a job only if it is safe
- We will look out for each other and speak up if there is a safer way to perform a task
- We will intervene and stop work when an unsafe action or condition is observed

Let's be relentless and keep each other accountable by making sure we pre-plan and discuss risk every day and that we continue to actively care. Thank you for your support and help maintaining a workplace that promotes the Building L.I.F.E.® culture. Together, we will continue to improve our performance and make our projects the safest possible.

Peter J. Davoren
President and Chief Executive Officer

MID-NORTH SAFETY PROGRAM | Revised May 11, 2023

MID-NORTH SAFETY PROGRAM

PROJECT DESCRIPTION

KEY PROJECT STAFF

- A. Project Executive -
- B. Environmental, Health and Safety Director –
- C. Project Manager -
- D. Sr. Superintendent –
- E. Project Superintendent –
- F. Project Safety Manager –
- G. Procurement Manager -
- H. Project Engineer -

RESPONSIBLITIES

Trade Partner Safety Manager

Trade Partner Safety Manager must have completed an OSHA 30-hour for construction class. One person must be certified for all contracts under \$5M, and two people must be certified for contracts over \$5M. The 30-hour certified person(s) must be on-site 100% of the time. This OSHA 30-hour certification must be updated through Turner's Safety Update Training every two years through Turner University.

- The Trade Partner's Safety Manager must be identified before start of their work. If the trade partner's contract value is \$5M or greater and/or the trade partner will have 25 employees or more on site, including sub tiers, for more than two weeks, they must provide a <u>full-time</u> Safety Manager who:
 - 1. Is qualified to recognize safety hazards; and
 - 2. Has the authority to take corrective action; and
 - 3. Possesses current certifications in First Aid, CPR and AED; and
 - 4. Possesses a recent OSHA 30-hour Construction card (within the last two years or has taken Turner's Safety Refresher); and
 - 5. Has an academic degree in safety, ASP, CHST, or CSP designation; or
 - 6. Has a minimum three (3) years of prior work history as a full-time construction safety manager.

Turner

MID-NORTH SAFETY PROGRAM

Turner reserves the right to approve or deny the trade partner's full-time safety representative for the project. At a minimum the Trade Partner Safety Manager will be requested to:

- Ensure their employees attend jobsite orientation before start of work on the project.
- Take the lead in recognition and abatement of hazardous situations.
- Effectively utilize and train employees in pre-planning, recognition, and remediation of hazards.
- Conduct a daily Safety Huddle which includes the following:
 - 1. Daily Worker Check-In & End of Day Check-Out.
 - 2. Daily Pre-Task Plan is completed for each task and reviewed with each crew.
 - 3. Control of work permits completed. (Hot Work, Confined Space, etc...).
 - 4. Stretch-n-Flex conducted prior to start of work.
- Perform and document weekly safety inspections (1 per week at minimum).
- Conduct at least one monthly safety tour with the Trade Partner's Safety Director and submit findings to Turner.
- Conduct, document, and submit toolbox meetings on a weekly basis.
- Attend and actively participate in project safety meetings.
- Enforce disciplinary measures when needs arise for their employees.
- Ensure that Competent Persons submit, at a minimum, the below listed safety inspections at the designated frequency to the Turner Project Superintendent or Safety Manager. Note: An OSHA 30-hour Construction card alone does not satisfy OSHA requirements for a competent person.

<u>Inspection</u>	Frequency	
Fall Protection	Before Each Shift	
Excavations	Before Each Shift	
Scaffold	Before Each Shift	
Crane Inspections	Before Each Shift	
Confined Space	Before Each Shift	
Hot Work	Before Each Shift	
Heavy Equipment	Before Each Shift	
GFCI	Weekly	
Personnel Hoist	Per OSHA Reqs.	
Surface Penetration Permit	Prior to penetrating the ground, walls, or slabs at any depth	
Tool Box Talks	Weekly	

MID-NORTH SAFETY PROGRAM

GENERAL REQUIREMENTS

EMPLOYEE / VISITOR ACCESS

All visitors must sign a visitor release at the project site office or into the visitor logbook when visiting an office.

All visitors must be escorted while on site and must adhere to Turner Project Safety Program and be 18 years of age or older.

SAFETY MEETINGS

Onsite employees shall attend safety meetings as scheduled by the owner or Turner Construction Company and the time and cost will be the responsibility of the worker's employer.

PRE-PLANNING

Job Hazard Analysis (JHA)

Every trade partner will prepare a JHA for each phase of work to identify the following:

- Safety and Health Considerations
- Description of Steps to be Performed
- Hazards Associated with Each Step
- Required Action to Eliminate or Control the Hazard
- Supervision Sign-off

Work shall not begin until the JHA for the work activity has been reviewed by Turner and discussed with all engaged in the activity, including the trade partner, trade partner(s), and other affected on-site representatives at safety pre-construction meetings.

Pre-Task Plan (PTP)

The PTP is a formal daily work plan. Each supervisor should meet with their crew, preferably at the place of the work or task, to discuss the tasks to be accomplished and the steps that need to take place to work safely. All workers should review and sign the relevant PTP for their assigned work before beginning the tasks. When the scope of work or conditions change, the PTP should be revised and resubmitted.

For each task of work a PTP will be completed to identify the following:

- Evaluating the work area.
- What permits and proof of training may be required.
- Potential hazard checklist.
- Description of steps to be performed.
- Hazards associated with each step.
- Required actions to eliminate or control the hazard(s).
- All PPE requirements for the activity, keep in mind that PPE is the last resort.
- Crew sign-off.
- In accordance with Building L.I.F.E., plan out steps and controls to minimize risk using the Hierarchy of Controls, as well as by reducing frequency, likelihood, and severity.



MID-NORTH SAFETY PROGRAM

Work shall not begin until the PTP for the work activity has been discussed with all engaged in the activity, including the trade partner, trade partner(s), and other affected on-site representatives at a safety preconstruction meeting or daily huddle. A copy of the PTP shall be kept near the work location.

The information the supervisors are relaying to the workers is the same that was developed in the JHA however, the PTP will more greatly define the plan for the phase of work that is occurring that day.

Pre-Task Planning is also accomplished on a daily and pre-shift basis through the pre-shift safety huddles. Each crew leader is responsible for ensuring the crew holds a safety huddle prior to the beginning of the shift, and as necessary during the shift, to develop and revise a PTP for that day's work. The huddle should be collaborative with input from multiple members of the crew. The hazard analysis is typically captured on a dry-erase board laid out like a JHA/PTP (steps, hazards, controls). Workers sign an attendance record showing they participated.

A copy of the PTP and/or a photo of each huddle board shall be kept near the work location and will be submitted to Turner daily. Some states and local municipalities have requirements pertaining to pre-task planning, whichever is more stringent must be followed.

HAZARD COMMUNICATION

Trade partners are responsible for developing a Hazard Communications Program and training their employees.

Safety Data Sheets (SDSs) are to be provided to Turner before the start of work and referenced as a part of pre-planning. Trade partners are responsible for maintaining an updated binder of their respective SDSs on the project and will make them immediately available for review upon employee, Turner, or any other request.

All chemicals and equipment containing chemicals must be stored in approved areas.

Trade partners are responsible for properly labeling and maintenance of said labels on all chemical containers.

SILICA

Each employer that has employees exposed to crystalline silica must prepare and implement a written site-specific Exposure Control Plan (ECP) that identifies tasks that involve exposure and the methods used to protect workers, to include procedures to restrict access to work areas with high exposures. A competent person from each exposing employer shall be designated to implement the exposure control plan and will be provided to Turner before work begins.

FALL PROTECTION

All work performed at or above 6 feet will be done in conjunction with positive fall protection 100% of the time, including but not limited to, loading and unloading trailers and the leading edge of excavations.

Each trade partner, with employees exposed to a fall greater than 6', must submit a written fall prevention plan to Turner prior to beginning work on site. The trade partner must conduct a weekly inspection of their system.

At no time shall a Safety Monitor be used as a means of fall prevention.

All conditions that will require personal fall protection shall be discussed and documented in the daily Pre-Task Plan and reviewed in the field by the crew leader.

MID-NORTH SAFETY PROGRAM

Each trade partner is responsible for protecting its own employees by using conventional means of fall protection such as standard guardrails or perimeter cables. The ongoing maintenance and daily inspection of this protection is also required.

If warning lines are used it must be maintained at least 15 feet from the leading edge, including trenches and excavations.

Employees must be trained in the use of fall protection. Trade partners shall provide Turner with their own project-specific Fall Prevention Plan which should include training records. describes the methods they intend to use to provide adequate fall protection for each specific operation and to comply with OSHA Subpart M, and Turner's six-foot rule.

Turner has a "No Gaps" policy to prevent the potential of falling materials. All working platforms or edge protection must be constructed to ensure there are no gaps which material could fall through. Employees must be protected from falling objects by the installation of toe boards, barricades, safety nets, or canopy structures.

All floor openings exceeding 2 inches in diameter shall be covered, barricaded, or otherwise protected. Covers shall be designed to withstand twice the weight of workers, equipment, and materials. Covers shall be secured against displacement horizontally and vertically. All covers must be clearly marked with the words "HOLE" or "COVER" and beveled or flush to reduce trip hazards. The trade partner creating the hole or opening is responsible for the protection or cover. Turner recommends that holes greater than 18" x 18" be protected by a guardrail system.

Where a risk of materials falling or being dropped, including during a lifting operation, an exclusion zone must be established. The exclusion zone should be constructed with physical barriers such as wood or metal guardrail systems, cable wire rope or chain or flagging. Danger and Caution tape will not be accepted for use in exclusion zone construction. The exclusion zone must be secured from tipping and signed. The size of the exclusion zone must consider deflection or arc of the falling material.

All tools, materials or equipment which have the potential to breach the perimeter protection must be positively secured back to the worker or structure through the use of tool lanyards or synthetic rope of line (natural fiber rope is not permitted). Lanyards or ropes must be appropriately sized for the weight of the tool, material or equipment. Anchorages must be snap-hook, carabineer, shackle, or similar device that provides positive locking. The use of knots to secure lanyards is not permitted. Trade partners must evaluate the size and weight of any object which will be secured to a worker's wrist, belt, etc. to ensure it will not cause injury in the event it is dropped. Tethering also applies when there is falling object exposure for employees in the vicinity of elevated work, even when "exclusion zones" are used.

GUARDRAILS

Perimeter cable may be ½" steel cable, but in no situation may they be less than 3/8" steel cable. The cable must be flagged at 6' intervals and must be terminated with three wire rope clips, "Crosby clips" on each end & deflect no more than 3". The cable rail cannot deflect below 39". When using cables for perimeter guarding closed turnbuckles are to be used for every 3 bays or 100 feet, whichever is less. Open eye turnbuckles are not permitted.

Guardrail systems must be able to withstand a force of 200 lbs. in all directions, without failure, and be smooth surfaced to prevent hand injuries. The use of metal studs or similar is prohibited.

PPE



Trade partners must provide their employees with all necessary Personal Protection Equipment (PPE) and tools and enforce their use as required by the Safety Program, as well as Federal, State, and local codes and regulations.

SAFETY HELMETS

Each trade partner shall enforce the wearing of ANSI-approved type II or EN12492-rated helmets with a 4-point chin strap tightly attached and secured (two-finger tight). Helmets are also required when welding.



SAFETY GLASSES AND FACE PROTECTION

<u>Safety glasses (minimum eye protection)</u>

Safety glasses that comply with ANSI Z87.1 must be worn. Dark lenses are not to be worn inside of buildings, in enclosed areas, or at night. Prescription eyeglasses and sunglasses that do not comply with ANSI Z87.1 are prohibited.

Goggles or spoggles

Goggles or spoggles must be worn (instead of safety glasses) when working above shoulder and when falling debris is expected. Examples of these type of activities include installing ceiling tile, pulling wire, etc. Goggles are required for all abrasive actions in which dust can enter the eye.

Clamp-on full face shield plus unvented goggles or spoggles

A full-face shield that clamps tightly onto the brim of the helmet <u>and</u> unvented safety goggles or spoggles that fit snuggly against the skin must be worn when demoing, drilling, cutting, grinding, or performing above shoulder activities that may create flying debris.

*For all scenarios above, please refer to equipment or tool manufacturer and / or Safety Data Sheet (SDS) for more specific eye and face protection requirements.

HI-VIS

High visual, safety vests, shirts, or jackets shall be worn as the outermost apparel by all employees, 100% of the time. ANSI-rated Class 2 (0-44 MPH) and Class 3 (45 MPH or more) reflective outerwear must be worn whenever working on or near (within 10 feet) of a roadway.

FOOT PROTECTION

Sturdy work boots, at a minimum, are required. Metatarsal guards must be worn when using jackhammers, tampers or similar equipment which could be dropped or landed on a worker's toes / feet. ANSI-approved safety-toed boots must also be worn by masons, drillers, pile driving, steel erectors, and riggers due to the hazards inherent with their work.

HAND AND ARM PROTECTION

Anyone entering the project is required to wear at a minimum cut resistant level 4 protective gloves 100% of the time, unless the trade partner's competent person can demonstrate to Turner that wearing gloves for a particular task creates a greater hazard. If agreed upon with Turner, the deviation to not wear gloves must be identified on the PTP, reviewed, and acknowledged. Refer to ANSI cut levels for determining the correct glove. Additional hand protection may be required depending on the hazard assessment.

Cut level 5 gloves (at minimum) must be worn when using box cutters and utility knives.

Appropriate arm protection is required during operations where the arms are exposed to potential cut hazards (i.e., Kevlar, Dyneema sleeves, etc.). Examples of these activities are working around metal studs and pull boxes, tight confines such as between wall studs or above ceiling, and all demo activities.

HEARING PROTECTION

Where an employee could be exposed to noise in excess of 85 dBA, their employer will provide hearing protection, which will reduce the noise to an acceptable level. If the noise levels are determined to cause

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and 8-hour TWA exposure greater than 85 dBA, the trade partner must submit a detailed hearing conservation program to Turner. This program must be approved prior to beginning work.

RESPIRATORY PROTECTION

Employees exposed to dust, fumes, and/or gases shall be provided with proper respiratory protection designed to protect against the substance encountered. Each trade partner is solely responsible for the proper testing and training per OSHA standards, and to provide the appropriate equipment for their employees.

FIRST AID, CPR and AED

Each trade partner must have their own adequate first aid kit and at least one qualified First Aid, CPR and AED-trained employee onsite full time. The name of this person, along with copies of their current certification cards, shall be submitted to Turner prior to beginning any work.

LOCK OUT / TAG OUT (LOTO)

A Lock Out / Tag Out program must be submitted by trade partners per OSHA standards. The procedure shall identify the minimum steps necessary to verify a "zero energy state" before any work begins.

The trade partner is responsible for assuring all workers involved and affected by lockout / tagout are trained and that a person competent in lockout / tagout is provided and onsite to provide oversight of the work. The competent person is responsible for maintaining a current Lockout / Tagout Log that identifies the project name, location of energy source, date, scope of work being performed under energy isolation, list of energy isolating devices, live-dead-live verification by the competent person, and trade partner name.

NOTHING HITS THE GROUND

Fabrication

- All material fabrication shall be performed at a work station between 30 and 39 inches off the floor.
- Workstations shall be mobile and include a fire stop directly behind all chop saws.
- Rubbish containers shall be mobile and located directly adjacent to the workstation.
- The trade partner is to furnish all mobile rubbish containers for their work.

Housekeeping

- All rubbish shall be disposed of as it is generated and be immediately placed in trade partner-provided mobile rubbish containers. Debris is not allowed to be consolidated on the floor.
- The trade partner is required to elevate all power cords to minimize tripping hazards on walking/working surfaces. Cords, hoses and welding leads must be kept off the floor at least 8 feet high, or as high as practical, in walkways, aisles, stairs and access points. Suspension of cords will be by non-conductive means only such as plastic S-hangers or wooden cord trees.
- Material which may be dislodged by wind and that could create a hazard when left in an open area shall be secured.

Material Handling and Storage

- Materials may not be stored within 10 feet of the building perimeter or adjacent to shafts or stairwells.
- All tools and materials must be tethered where there is a risk of materials falling or being dropped, including during a lifting operation, unless the project team determines an exclusion zone must be established. The exclusion zone must be constructed of hard barriers such as wood or metal guardrail systems, cable wire rope or chain, red plastic chain, or similar material. Danger and caution tape will

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not be accepted for use in exclusion zone construction. Exclusion zone must be maintained during work and have legible Danger signage posted along the perimeter. The size of the exclusion zone must consider deflection or arc of the falling material. All tools, materials, or equipment which have the potential to breach the perimeter protection must be positively secured back to the worker or structure using tool lanyards or synthetic rope (natural fiber rope is not permitted). Lanyards or ropes must be appropriately sized for the weight of the tool, material, or equipment. Anchorages must be snap-hook, carabineer, shackle, or similar device that provides positive locking. The use of knots to secure lanyards is not permitted. Trade partners must evaluate the size and weight of any object which will be secured to a worker's wrist, belt, etc. to ensure it will not cause injury in the event it is dropped.

- Material must be stored to promote mobility of material. Pipes, conduits, metal fabrications and steel framing are to be stored on rolling racks or similar means of conveyance. Bulk material must be palletized to allow for easy mobility.
- "Just in Time" delivery is required to minimize clutter.
- Heavy material such as glass and drywall must be loaded so as not to overload the structure. The trade partner is required to do a floor loading analysis.

STEEL ERECTION

A site-specific erection plan must be developed by a qualified person and submitted prior to start of erection.

The area below steel erection activities must be barricaded to prevent access by unauthorized personnel.

Tag lines must be used to control loads.

Multiple lift rigging ("Christmas Treeing") may be used when limited to a maximum of three (3) members.

Tools and containers for rivets, bolts or welding rods must be secured to prevent falling.

Steel erection activities such as connecting, bolting and welding are to be accomplished from aerial or scissor-lifts to the extent feasible.

Structural steel erection is not to be done using forklifts.

- Small miscellaneous pieces may be lifted if a lift plan is prepared and Turner's Safety Manager (or superintendent if a Safety Manager is not present) allows the lift, the piece does not exceed 70% of the forklift's capacity as configured and is allowed by the load chart.
- The lift must be made with an attachment designed and/or approved by the forklift manufacturer.
- Turner's Business Unit EHS Director must review all plans, prior to lifting, if a trade partner intends to use a forklift for lifting small, miscellaneous, pieces of steel.

CONFINED SPACE

Before beginning work at a project site, each trade partner must ensure that a competent person identifies all confined spaces in which one or more of the employees it directs may work and identifies each space through consideration and evaluation of the elements of that space, including continuous testing as necessary. All confined spaces that an employee will enter must be classified as either a "permit-required space," a "non-permit space," or an "alternate-entry space." Classification of each type of space must be accomplished using the Turner Confined Space Entry Permit, regardless of classification.

EXCAVATIONS

Utility locating services must be contacted prior to any surface penetrations. If utilities are identified, daylighting those utilities is required, by hand-digging or hydro-excavating. No known utilities will be uncovered or excavated using heavy equipment.



A Surface Penetration Permit must be utilized when there are plans to penetrate the ground at any depth. This should be filled out and utilized for cutting into slabs and coring walls as well.

Excavations greater than 4 feet in depth shall always utilize protective systems (i.e., trench shields, sloping, benching, or shoring) to protect employees against potential cave-ins.

All excavations, regardless of depth, shall be protected by safety fence or guardrails.

People walking or working adjacent to an excavation greater than 6 feet in depth must be protected from fall hazards in accordance with Turner's 100% Fall Protection Policy.

All hydraulic shoring fluid must be environmentally friendly.

GROUND FAULT CIRCUIT INTERRUPTERS (GFCI)

All 120-volt single phase 15 & 20-ampere receptacles shall have approved GFCI's.

The electrical trade partner shall test each power receptacle for proper installation including polarity, grounding, etc. and conduct and document monthly tests after the initial installation.

TEMPORARY LIGHTING

All temporary lighting shall be run with sheathed multi-conduction wire. No single strand wiring is allowed. Temporary lighting must never be put on the same circuit as temporary or permanent receptacles; temporary lights must be on a dedicated circuit.

The minimum illumination level through the project is:

- 5 footcandles in areas where no work is being performed but employees may travel;
- 10 footcandles in work areas;
- 15 footcandles in electrical or mechanical rooms; and
- 50 footcandles where first aid and other health or wellness stations are located.

The electrical trade partner is to provide LED temp lighting and is responsible for maintenance of temporary lighting, with at least the minimum lighting levels described above, until permanent lighting is provided. Installation of temporary lighting should anticipate the future placement of ductwork, piping, etc. that may block or reduce light.

GENERAL

Where discrepancies exist between this program, and other regulations, standards, safety plans and contract documents, the more protective requirement will apply.

No one under the age of 18 is allowed to work on the project property / construction site.

Turner offices and projects are tobacco-free zones. This includes e-cigs and all forms of tobacco.

No animals are allowed on Turner property. Please contact Headquarters EHS and Human Resources if you are requesting to bring a service animal on Turner property.

No walking or driving on projects while talking or texting on phone or walkie-talkie.

All personnel are empowered and encouraged to stop unsafe acts, identify unsafe conditions, and to escort non-construction personnel out of the work areas. Please care for your project teammates.

No headphones, iPods, radios, etc. are permitted on the job. No streaming of music from the internet. No walking or driving on projects while talking or texting on phone or walkie-talkie.

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A fluent interpreter must be provided and on site for any crew that has one or more non-English speaking workers.

The list of behaviors below, while not inclusive, provides examples of conduct that is prohibited:

- Causing physical injury to another person.
- Making threatening remarks, verbal abuse, derogatory remarks, racial or bias motivated statements (verbal or in writing).
- Aggressive or hostile behavior that creates a reasonable fear of injury to another person or subjects another individual to emotional distress.
- Intentionally damaging employer property or property of another employee.

To the maximum extent permitted by applicable law, the possession on Company premises or while on duty of firearms, clubs, explosives, or other weapons that could be used to cause harm to personnel or property, other than that used to perform specific construction activities, is not permitted. This would include Turner projects and client-owned buildings and facilities we work in, project-provided parking areas, and while in the execution of work duties.

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Employees must:

- Perform their work to prevent accidents to themselves, fellow workers, and property.
- Use Personnel Protection Equipment as required, to meet all Turner, federal, state, and local requirements.
- Alert supervisors to dangerous situations.
- Cooperate with principles of the Project Site Specific Safety Program.
- Utilize all tools and equipment in a safe manner and in accordance with manufacturer's recommendations.
- Complete project safety orientation before starting work on the jobsite.
- Acknowledge and abide by the project enforcement rules.

All visitors must sign a visitor release at the project site office or into the visitor logbook when visiting an office. All visitors must be escorted while on site and must adhere to Turner Project Safety Program and be 18 years of age or older.

All trade partner vehicles within the project site fence (including, but not limited to, transportation and construction equipment, delivery trucks and personal or company trucks) shall not idle.

The only allowable exceptions to the standard are as follows:

- Ambient air temperature exceeds 85°F or falls below 32°F (or as defined by local or regional temperature limits, whichever is stricter)
- Engine idling is required for the function of auxiliary equipment (i.e., cranes, concrete pumps, etc.)

PUBLIC AREAS

All work performed in or adjacent to public spaces will be required to have barricades separating the public from the work.

Public protection should be a minimum of 6' tall and installed in a manner that does not create an additional hazard such as tripping, and capable of sustaining, without failure, high winds, and wind gusts.

Warning signs must be posted approximately every 100' of linear fence to inform the public of hazards.

All public areas are to be always kept clean and clear of debris.

HAND AND POWER TOOLS

- Employees must be trained on each hand and power tool to be used.
- All hand and power tools and similar equipment, whether furnished by the employer or the employee, shall be maintained in a safe condition, per the manufacturer's guidelines.
- Tools should only be used for their intended purpose.
- If the tool is designed to accommodate a guard or handlebar, the guard or handlebar must be in place while the tool is being used.
- Each connection on a pneumatic tool and air hose must be secured with a "whip-check" or similar device.
- Operators of powder-actuated tools must be authorized, must possess valid credentials, and wear proper personnel protective equipment.
- All hammer-drills and rotary hammers must have integrated technology, such as a "safety clutch," that will stop drill-bit rotation should the bit bind up in the hole. An example of this is Hilti's Anti-torque control (ATC) technology.

LADDERS



Ladder use on Turner Construction projects will be allowed only when it has been determined that it is unfeasible to use all other options to complete the task.

If it is determined that a ladder is the only means of performing the job at elevated height, a ladder permit must be submitted prior to starting work. At no time will a ladder be on site without a current permit and safety checklist.

For repetitive work, allow for the use of a "multi-day" permit to be issued in lieu of a daily permit. Daily inspections would still occur, but the permit/tag would be modified.

Use of job-built ladders is prohibited on Turner Construction projects. Temporary stair towers or prefabricated stairs shall be used to access different building levels.

When working at a height greater than four (4) feet, 100% fall protection is required. A retractable is the only option in this case.

When extension ladders are used to access upper landings, the side rails must extend at least 3 feet above the landing, and secure at the top. Install an overhead fall protection anchor point, where feasible, to allow for the use of PFASs while ascending/descending.

CONCRETE AND MASONRY

Each trade partner working on a Turner project will comply with 29 CFR 1926, Construction Industry Regulations, Subpart Q – Concrete and Masonry Construction, in addition to the following guidelines.

Unless otherwise stated in the contract, the concrete or masonry trade partner must provide at least two covered entrances into each building or structure during perimeter work. They must also cordon off other means of access/egress.

No load may be placed on a concrete structure unless a qualified person, knowledgeable in structural design, determines that the structure is capable of supporting the load.

Protruding reinforced steel, onto which employees could fall or fall into, must be protected to eliminate the hazard of impalement. The use of mushroom caps is not permitted for impalement hazards.

No worker, except those involved in post tensioning operations, shall be permitted to be behind the jack during tensioning operations. Signs and barricades shall be erected to limit access to the area.

No worker shall be permitted to walk under concrete buckets while it is being elevated or lowered into position.

No worker shall be permitted to apply cement, sand, and water mixture through a pneumatic hose unless the employee is wearing the proper PPE including face protection.

The trade partner shall provide an eye wash station with at least 15 minutes of eye wash solution within 75 feet of any concrete, painting, or masonry work.

Equipment and Tool Requirements

Powered and rotating concrete troweling machines must have a switch that automatically shuts off power whenever the hands of the operator are removed from the machine.

Cast-In-Place Concrete Requirements

Formwork must be designed, fabricated, erected, supported, braced and maintained so it is capable of supporting all lateral and vertical loads anticipated to be applied to it.



All shoring equipment must be inspected prior to erection to determine if it meets the requirements specified in the formwork drawings.

Erected shoring equipment must be inspected immediately prior to, during and after concrete placement.

An inspection of the shoring prior to, during, and after the concrete pour is an OSHA requirement.

The concrete trade partner is to determine their means and methods for inspection without placing any person directly under a live concrete pour.

A Controlled Access Zone must be established around the live pour so no one can enter. If an individual is assigned to inspect the shoring, they will be positioned outside of the controlled access zone of the concrete being placed and the previous bay where concrete was placed. This type of inspection of a live pour can also be completed with the use of technology. How the inspection is to be completed will be determined in the preconstruction meeting and will be detailed in the JHA and reviewed with all workers prior to the concrete pour. The location of the person inspecting shoring and performing tasks during concrete placement will be detailed on the project-specific Job Hazard Analysis (JHA) and daily Pre-Task Plan. The placement sequence will also be noted in the JHA.

A qualified designer must prepare the design of the shoring and reshoring. A third-party engineer qualified (certified, registered engineer) in structural design shall review the design of the shoring.

The designer of the shoring must inspect the (initial) erected shoring to ensure it is installed per design prior to concrete pour. Assignment and training of a minimum of one competent person that must be always on site to inspect shoring prior to any concrete pour by the installing trade partner. Any change of formwork should be inspected by designer.

Forms and shores must not be removed until the employer determines that the concrete has gained sufficient strength.

100% Fall protection will always be required while accessing or working on temporary outrigger platform systems. Any anchors for outrigger platforms must be cast in place.

At building perimeters where the decking steps down to allow for a beam pour, the height of the rails shall be increased accordingly.

Areas where form stripping is to be performed must be properly barricaded with tape or fence and signage must be posted on all sides. This should include areas below stripping.

Protruding nails should be removed or bent immediately.

Where employees must walk across rebar, temporary walkways must be installed to prevent trip hazards.

Outrigger platforms used for material movement in and out of the building via a crane or forklift must be designed by an engineer and incorporate 100% fall protection systems.

Authorization to Strip Formwork

When given Authorization that the concrete has reached strength in accordance with project specifications by the Structural Engineer of the Project, the written notification from said engineer (third party that does break strength testing) will be forwarded to the structural concrete trade and Turner. Stripping activities regarding formwork and work platforms will not proceed prior to receiving the authorization.

If any change in conditions occurs while stripping a work platform or shoring, all work must be stopped. A written notification must be sent by the Structural Concrete trade partner to Turner



Management staff and a review meeting held to assess the change. A revised risk mitigationplan will be stablished and reviewed with all workers prior to work restarting.

Use of Proper Barricades and Signage on the Formwork

The use of fixed, physical barricades in lieu of Caution / Danger Tape, where appropriate, to further inform and protect employees from changes in elevation must be utilized.

The use of fixed, physical barricades to further inform and protect employees whenever there is a fall hazard must be utilized. Caution / Danger Tape can never be used to barricade for a fall hazard.

Additional warning signage that contains the appropriate contact information for the trade partner which has installed the barricade must be installed on the barricade.

Masonry Requirements

A limited access zone (LAZ) must be established prior to the start of any masonry work.

The zone must be equal to the height of the wall, plus four feet for the entire length of the wall.

All masonry walls over 8 feet in height shall be adequately braced and remain in place until the permanent supporting elements of the structure are in place.

For overhand bricklaying from a scaffold, fall protection is required if the working side of the scaffold has a gap greater than 12" between the scaffold and structure.

SCAFFOLDS

Scaffolds must be erected under the supervision of a competent person. The competent person shall be designated with credentials submitted to Turner prior to the start of work.

A Personal Fall Arrest System or a guardrail system must be in place on all scaffolds exceeding 6' in height.

Mobile scaffolds require guardrails at 4 foot in height. When rails cannot be installed, utilize a Personal Fall Arrest System (PFAS) anchored overhead.

The use of fall prevention devices is required during the erection or dismantling of a scaffold.

The area below a working scaffold must be barricaded to protect employees from a falling object hazard.

The Competent Person shall inspect scaffolds daily. The competent person will "tag" the scaffold "in service" or "out of service" prior to employee use.

Frame and system type scaffolds, including but not limited to masonry and tube & coupler, must be accessed via scaffold stair attachments.

Mobile scaffolding wheels must be locked when in use.

Cross bracing shall not be used as guardrails.

Scaffolding, such as swing stages, pump jack scaffold, boatswain (bos'n) chairs, floats, and needle beams, requires special approval by Turner's Business Unit EHS Director before use.

SIGNS, SIGNALS, AND BARRICADES

At locations where potential hazards exist, trade partner personnel shall be responsible for posting, installing, and maintaining signs, signals, and barricades to detour the passage of persons or vehicles.

Where areas may require additional awareness or present unique danger, the use of warning barrier may be necessary.



- The warning barrier should have a sign with the nature of the hazard, the trade partner who installed the barrier with a contact number, and the duration the barrier will be in place.
- The intent of the warning barrier is to notify of hazards that may arise during construction activities. Every effort should be made to correct these situations with permanent solutions in a timely fashion.

Turner prefers hard barricades with appropriate signage is to be used in situations where entry is prohibited or requires special permission.

Trade partners installing danger or caution tape are responsible for maintaining it for the duration of their work, or if the hazard exists, and removing immediately after.

Danger signs are to be posted to communicate a potentially dangerous, DO NOT ENTER situation. Caution signs are to be posted in areas where entry is allowed but caution must be followed.

Tape, of any kind, is not permitted for use as fall protection nor swing radius delineation. The swing radius of cranes and other equipment must be a hard material such as red-colored, plastic chain.

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INDUSTRIAL VEHICLES

Trade partners must provide for proper equipment selection, inspection, and operation of industrial vehicles, including but not limited to, All Terrain Vehicles (ATV) or Quads, Three-Wheeler, Four-Wheeler, Gators, Mules, and all other similar vehicles.

Only vehicles that have previously been approved by the Operations Manager and Business Unit EHS Director may be utilized.

All authorized drivers must complete training that follows manufacturer requirements (as coordinated through the dealership of the equipment) for the safe operation of the vehicle including use of personal protective equipment, authorized surfaces for operation of the vehicle, weight restrictions, and other safe operational conditions.

Vehicles must have legible name plates and markings that indicate load limits.

Jobsite speed limits and other regulatory signs must be obeyed.

Pedestrians always have the right of way.

Seatbelts must be always worn when riding in a vehicle equipped with seatbelts.

All vehicles used during a project for contract activities must have reverse signal alarms.

HEAVY EQUIPMENT

All operations requiring the use of heavy equipment will require a pre-planning meeting to coordinate and prevent injuries to workers and the public.

All trade partners delivering or receiving material and equipment to the project are required to complete a risk assessment and pre task plan prior to any loading/unloading activities to establish safe work procedures for working around trucks and to protect workers and the public.

Establish a restricted access zone around the truck to prohibit entry into the load/unload area. High visibility "do not enter" tape should be used. "Do not enter" tape is intended to prohibit access and should only be used as a substitute for physical barricades.

- No worker, except those involved in the load/unload operations shall be permitted to be behind the "Do not enter" area. Signs and barricades shall be erected to restrict access to the area.
- The zone must be equal to the area needed to load/unload plus ten feet around the entire truck area.
- All designated personnel within the zone must be clear of the load during all loading or unloading operations by at least 30 feet.
- A qualified "spotter", wearing an ANSI approved high visibility traffic vest, must be utilized during the loading/unloading operation.
- Vehicles must never back "blind" on a Turner project.
- Workers on the ground within the zone should never be on the opposite side of a truck from a forklift
 / telehandler while it is loading or unloading material.

The driver must be in full view to a forklift / telehandler operator. All loading or unloading activity must stop if the driver cannot be seen or needs to enter the exclusion zone to inspect a load. Alternatively, if it is safe to do so, the operation can allow the driver to stay in the truck cab during loading and unloading.

All motor vehicles and material handling equipment, with an obstructed view to the rear, must have a reverse signal alarm audible above the surrounding noise.

Spotters must be provided for vehicles in congested areas and when backing up.



Heavy equipment (i.e. dozers, scrapers, back hoes, etc.) shall be inspected by the operator prior to each shift. A completed Equipment Inspection Form shall be submitted to the Project Superintendent daily.

CRANES

No crane shall be placed in service on a Turner project until an annual certification, a third-party inspection and supplemental reports are submitted to Turner indicating that the crane meets the manufacturer's inspection criteria.

A daily crane inspection, performed by a competent person, is to be documented. Those are reports are to be provided to Turner when requested.

Any crane that is altered, repaired, "jumped", or modified in a similar manner onsite must be re-inspected by an independent third-party inspection company. Any crane after assembly must be inspected by an independent third-party inspection company.

Crane operators are required to verify the weight of each load prior to hoisting.

The trade partner shall supply a qualified signal person who, through training by a qualified evaluator, deems the person qualified on the standard methods for signals (hand and radio).

Cranes, hoists, boom trucks and derricks shall not be installed or operated within 20' of a power line unless they follow 1926.1408 (a) (2).

The use of a personnel basket must be approved by Turner's BUSINESS UNIT EHS Director after the trade partner has proven there is no other practical safer means.

Outrigger pads should be at least 3 times the dimension of the crane float. The outrigger pads are to be premanufactured.

Due diligence is required to determine firm and stable ground loads for outrigger placement. This can be accomplished with Ground Penetrating Radar (GPR) or X-ray.

RIGGING

Any trade partner performing rigging must have a qualified rigger. The qualifications of the rigger must be submitted to Turner for review, prior to start of work.

The qualified rigger shall inspect all rigging prior to each use.

Do not leave unsecured or unattended suspended loads.

The forks of a forklift or telehandler cannot be used for free rigging.

MOBILE ELEVATED WORK PLATFORMS (MEWPS)

All scissorlifts and boom lifts shall have a shroud or guard over the joystick/controls. Scissorlifts require a three-sided joystick guard. Scissorlifts should also have a timeout feature on the lift/lower and drive selector, which disables the lift/lower and drive functions after several seconds of inactivity. Moreover, boom lifts must be delivered with anti-crush or secondary-guard technology.

Please see below for examples of approved guards and shrouds for lift controls on Turner projects.

Note: In addition to joystick guard/shrouds, clear messages, proportional lift and drive controls, and symbol-based function selection buttons are required for easy training and operation of lifts.

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Trade partners are required to complete a daily inspection sheet for all mobile elevated work platforms. The inspection includes operational and physical parameters for operation of the equipment being inspected. The inspection form must be posted in a visible location during operations and a copy made available to Turner upon request.

Only trained and authorized individuals may operate aerial lifts.

When a lift is delivered to the project, the rental company or the owner of the lift shall inspect the lift & provide documentation the lift is safe to operate onsite. The lift shall be free from any physical defects in new or like new condition with all the safety placards present. The operator's manual and inspection documentation shall be included.

Employees must use personal fall arrest systems (PFAS) when working from boom platforms. Employees shall follow the manufacturer's recommendations for the type of (PFAS) when working from an aerial lift. At a minimum, employees shall follow the manufacturer's recommendations for the type of fall arrest/restraint when working from a scissors lift. If scissorlifts are equipped with an attachment point provided by the manufacturer for a restraint system, they are to be used. The intent of this protection is to keep workers within the confines of the passive protective system (rails) so the shortest length of lanyard that allows the task to be completed and keep the worker confined to the walking/working surface is required. Note: These attachment points are not designed as fall protection anchorages.

Never climb above the work platform. Employees must keep both feet on the floor of the basket and not stand on the railing or toe board during operation. If it has been determined by the trade partner's competent person that there are no feasible means to access an area without leaving the basket of a scissor lift, a modified Pre-Task Plan must be completed as well as a Fall Protection Plan. This plan must be completed by the competent person with details of the anchorage point outside the scissor lift and above the employee's head. Any worker engaged in the activity should be active in the preplanning of the modified plan. All workers involved must review and sign off on the plan. This must be reviewed with Turner's Superintendent. Each work activity and area will require their own PTP and Fall Protection Plan.

When the manufacturer provides pre-engineered fall protection add-on devices on mobile elevated work platforms, and a person exits the platform while being connected, a person trained in the operation of the mobile platform must remain on the ground, near the machine base controls, to prevent unauthorized use and to prevent the machine from being operated while used as a fall arrest anchor. Trade partners must specify this protocol within their daily PTP.

A dedicated spotter is required any time a scissor lift must be moved in an elevated state or when operated in congested areas. Spotters will be responsible for ensuring that the area around the MEWP and the travel path are free of obstruction and clear of equipment and personnel.

Mobile Elevated Work Platform Use in High Lift Situations (applies to boom lifts with an operating platform height of 30' and above) require the following:



A dedicated JHA shall be developed for each activity operating a MEWP above 30'.

A system for managing the affected area below the basket and movement of the MEWP's is necessary to decrease the risk of struck-by hazards.

If any of the workers in the Aerial Boom Lifts are incapacitated and incapable of descending, a rescue may be required. Due to the nature of this type of work, it is prudent to establish an emergency response plan which has redundancy built into it.

A dedicated ground spotter (with no other collateral duties) shall be in place whose duties are as follows:

- Visually verify and communicate via two-way radio that all obstructions are clear of the path of travel at the ground level.
- Visually verify that all obstructions are clear while basket is moving.
- The ground spotter shall be responsible for no more than 1 Controlled Access Zone (CAZ).
- Additional spotters will be required if MEWP's will need to be operated/relocated simultaneously within 1 CAZ (Approximate size and dimension of CAZ is below).

Spotter Logistics:

- If 2 or more lifts are required to operate simultaneously, each operator/spotter team will utilize their own dedicated radio channel.
- The Spotter shall not use a cell phone, headphones or other devices which may distract them from their duties.
- The Spotter shall have stop work authority.
- The spotter shall wear, at a minimum, a Class II high visibility vest, shirt, or jacket.
- The Spotter/operator team shall perform a "radio" check prior to the commencement of the activity and every 30 minutes thereafter if no communications occur during that time frame.
- Operation of MEWP from the basket is prohibited without prior communication with the spotter and an "All Clear" is given.

Other Traffic at base of operating MEWP:

- A Controlled Access Zone (CAZ) will be established in the affected areas of the MEWP operation to include the base and working zone beneath the platform.
- The CAZ should be constructed with physical barriers such cable, wire rope or chain, or flagging. Danger, Caution tape and spray-painted lines will not be accepted.
- The CAZ must be secured from tipping and signed every 30'. The size of the CAZ must consider deflection or arc of the falling material.
- Each CAZ will be adequately sized to have a 15' buffer zone on each side of the MEWP to include under the platform.
- Each CAZ will hold no more than 3 boom lifts.
- No other equipment or vehicle will be allowed to operate within a dedicated CAZ.

A 30' wide dedicated path of travel for vehicles and other equipment shall be established using rope, traffic cones, delineators or other clear markings which safely guide other equipment and vehicles around the MEWP CAZ.

Any changes in the path of travel must be approved by the Turner Superintendent.

Boom lifts shall not operate within or over the traffic zone.

The Spotter shall monitor vehicle traffic and shall have authority to stop work and or vehicle traffic.

Emergency Response



There shall be, at a minimum, (2) two MEWP's on site when working in excess of 85 vertical feet. This is to ensure that one could assist another which has the capability to reach the basket in the event of an emergency. Exceptions include when there is a means of safely reaching the platform via catwalk or other elevated surface, or when there is a means to reach the platform from above via rope, slings or other climbing type equipment.

The Spotter shall be trained on how to safely use the ground controls. The ground controls shall be tested prior to work occurring each day and/or shift.

The Local Fire Department Shall be invited to the project site to review conditions and site activities which may have the potential for a "Vertical Rescue" in the event of an emergency.

The emergency response number shall be conspicuously posted.

Turner, the fire department and dispatch shall determine a key phrase or word which indicates that a "Vertical Rescue Team" is required. (These teams have specialized training and equipment to respond to high rescue conditions.)

Workers on the ground shall stay out of the CAZ and communicate with the spotter if entrance is needed.

A Stop Work must immediately be called when any deviations are observed with fall protection.

Identify and discuss task which have the potential for falling tools, materials and/or debris. Do not start work until procedures are in place to prevent the loss of tools or equipment (tethering or other means) and/or a Controlled Access Zone is established.

Workers should avoid positioning themselves, and their equipment, in a line of fire where they could be struck by falling, flying, or moving objects from the overhead platform.

Utilize tag lines to maintain positive control of objects being removed or hoisted to ensure the object does not encounter the lift.

DRONES

Turner's policy on drone use is they should only be used as a last resort. If there are other means available to inspect, survey and document jobsite conditions, they should be used in lieu of a drone.

All drones must be operated by a third party who is licensed by the FAA and insured per Turner's insurance policy guidelines.

Drone use can be obtained by submitting a Drone Use Approval Request Form. The form must be submitted for review and approval by Turner's Operations Manager and Business Unit EHS Director.

HOUSEKEEPING

Clean-as-you-go practices are required. All rubbish shall be disposed of as it is generated and be immediately placed in a mobile rubbish container provided by the trade partner.

Each trade partner is responsible for maintaining clear paths to move materials and facilitate emergency egress.

Housekeeping methods will be specified within the trade partner JHA and PTP.

MID-NORTH SAFETY PROGRAM

INCIDENT REPORTING REQUIREMENTS

All incidents resulting in injury or property damage are to be reported at the time of occurrence to the Turner Project Superintendent and/or Project Safety Manager.

For any incident involving personal injury, the trade partner will complete their own incident investigation report form and submit it to Turner as soon as reasonably possible (same work shift) but no later than eight (8) hours after the incident occurred.

Copies of all Workers' Compensation reports involving trade partner employees shall be promptly forwarded to Turner Construction Company.

Trade partners will be individually responsible for notifying Federal, State, and local authorities when required.

FIRE PREVENTION

Temporary offices, storage and break areas, or other temp structures, when located inside of a building under construction, must be constructed of fire-retardant materials.

Shanties:

- Each shanty shall have at least one (1) 20# ABC fire extinguisher.
- No oily clothes, oily rags, nor fuels shall be stored in shanties.
- Each trade partner is responsible for installing and maintaining a smoke and carbon monoxide detector in their shanty.
- Electric heaters, if permitted on the project, must be equipped with hi temp shut down and tip-over protection. Electric heaters are not permitted to be operated while unattended.

Trade partners installing tarps, blankets, and poly that may be exposed to sparks are required to utilize fireretardant material.

Onsite fuel tanks must be double walled, be protected from construction vehicle traffic and have a spill containment system capable of holding all contents of the tank in the event of a leak.

Fire extinguishers shall be a minimum of 20# ABC type and placed and maintained on the job in conspicuous locations according to OSHA requirements. Fire extinguishers must be affixed in a location to prevent damage from water or other materials. These fire extinguishers shall not be moved or discharged except for fighting a fire.

Liquid Propane Gas must never be stored inside buildings.

Cylinder storage must be stored upright and properly secured. When not in use, disconnect hose/gauge assemblies and cap the cylinder. Stored cylinders must have a ½ hour fire rated barrier 5 feet tall or be stored 20 feet apart.

All "Hot Work" requires a permit and approval from Turner's Project Superintendent. Hot work procedures must be followed including Fire Watch.

- Fire Watch will be provided during and for at least 30 minutes after work and during any coffee or lunch breaks.
- Fire Watch is supplied with suitable extinguishers (20-pound, dry chemical, type ABC unless otherwise specified due to project hazards).
- Fire Watch is trained in use of this equipment, in sounding alarm and in emergency evacuation procedures.
- Fire Watch persons must be designated by a red safety vest when acting as a Fire Watch.

MID-NORTH SAFETY PROGRAM

Considerations for temporary heating must be evaluated and approved by the Senior Operations Lead and Business Unit EHS Director. Temporary heating devices require a Hot Work Permit.

BUILDING L.I.F.E.

Building L.I.F.E. (Living Injury Free Everyday)® is a continuous improvement process with an upstream focus on risk and the systems which produce risk. The program endeavors to produce a bottom-up safety culture driven by increased worker engagement in safety and planning processes. Building L.I.F.E.® (BL) places an emphasis on optimizing human performance, anchored by a focus on observation & feedback. The outcome of implementing the BL Model is a culture-shift in worker attitudes toward teamwork and proactive safety involvement. Below are the three primary goals associated with BL and the processes supporting each goal:

- 1. <u>Systems Focused Approach</u> Integrate the BL "systems model" into key processes such as preplanning, performance evaluation and incident analysis. Move preplanning farther upstream. Sharpen our focus on risk analysis and reduction. Involving those "closest to the risk" in preplanning.
 - a. BL JHA The JHA has been the standard Turner pre-planning tool thus far. With BL, the JHA has evolved into the BL JHA which places a focus on risk & the system factors which drive that risk. Trade partners complete the form ahead of the pre-construction meeting and submit to Turner. The Turner project team (safety & operations) reviews the quality of the BL JHA and push back if the assessment is not deemed to be of adequate quality. At the pre-construction meeting, Turner will review the final BL JHA and facilitate a discussion with the trade partner to see if risk can be further reduced (with additional controls). As an option, this may include a Turner facilitated Residual Risk Reduction (R3) step which involves quantified risk assessment. Again, the main difference between standard Turner JHAs and the BL JHA is the focus on reducing risk (frequency, likelihood, severity), and the systems which drive that risk (environment, capability, motivation).
 - b. Pre-Task Plans (PTP) This is traditional and effective Turner short-range planning tool is that is supplemented with the Daily Huddle. PTP frequency can be locally determined as either daily or weekly. If weekly is the option selected, and the risk changes during the course of the week, a new PTP is required.
 - a. Rapid Improvement Events Conduct Rapid Improvement Event analysis with front line workers at regular intervals, where they have an opportunity to (using the BL JHA as a starting point) examine work process and look for improvements (risk, efficiency or quality).
 - c. Daily Huddles The Daily Huddles are designed for each trade partner to conduct a meaningful, two-way discussion of anticipated risk & planned controls on a daily basis. The pattern of Huddle dialog (bottom-up) should be What are our key activities today? What are the key risks we need to be thinking about? What controls do we need in place to protect? Note those controls need to include physical safeguards, training/procedural safeguards, and required actions (behavior) to keep the task safe.
 - d. BL Root Cause In short, we're looking to incorporate the three systems circles (environment, capability, motivation) into our root cause analysis, whether we're looking at an incident, a near miss, or even an "at-risk" observation.
 - e. BIM/Safety Integration Where BIM Models are available, the project team should work with the BIM engineer recognize and analyze risk and to pre-plan for safety. BIM should be used to develop safety and logistics plans.
- 2. <u>Engage the Workers</u> To facilitate a culture-change at our projects toward partnering and proactive safety engagement, the project team, including trade partner supervision, needs to continuously seek out opportunities for front line workers to participate in, and contribute to, the



safety process. Each trade partner should feel free to add creative opportunities, but the primary opportunities are:

- a. BL JHA & PTP Review Once mobilization ramps up, each trade partner should have the frontline workers review the JHA (could be done in a toolbox talk format), and ask them to add missing pieces, contribute new ideas, etc. The key is participation. The same holds true for PTPs getting the workers involved in the process.
- b. Daily Huddles This is the primary opportunity for front-line workers to be part of the safety process. An effective two-way daily discussion of risk & control plans will be essential to successful Building L.I.F.E.®. Huddles supplement the PTP process.
- c. 5-Worker Lunches Provides another venue for workers to be involved and have avoice into safety management.
- d. Rapid Improvement Events Great opportunities to get front line workers involved in the work process (not just safety), at regular intervals.
- e. Safety Perception Surveys and Safety Observation and Recognition (SOAR) stations allow the workforce to provide us a "report card" on what's working and what's not.
- 3. Optimizing Human Performance In order to help optimize (safety) performance, the Building L.I.F.E.® process employs several tools to achieve continual improvement.
 - a. Coaching Training This is aimed at Turner and trade partner leadership and is designed to help them become better safety coaches during their planned & unplanned observation opportunities. Training will include how to better understand what drives better safety performance (behavior), and how to conduct meaningful safety observations.

SUBSTANCE ABUSE POLICY

Trade partners are required to comply with all elements of the Substance Abuse Policy contained within Turner Construction Company's Environmental Health and Safety Policy.

STRETCH AND FLEX

All trade partner employees are required to participate in a Stretch and Flex Program on this project. A stretch and flex will be facilitated by each trade partner's foreman or designee at a central location, every morning, prior to start of work. All employees are required to participate but only to their level of comfort.

MID-NORTH SAFETY PROGRAM

SUMMARY

Turner reserves the right to add or change this Program, as deemed necessary, to protect people, property, and the environment.

The Project Safety Program is designed to proactively manage, control, and eliminate incidents throughout the construction process.

This Program is to be used in conjunction with Turner Construction Company's Environmental Health and Safety Policy as well as the Trade Partner's Safety Program(s). The more stringent elements within each program shall supersede the other and will be followed unless otherwise directed by Turner.

Turner Construction Company expects full cooperation from all trade partners, regardless of tier, in monitoring, supervising, and enforcing the Project Safety Program.

All trade partners, regardless of tier, engaged in work on this project, shall comply with Turner's Project Safety Program, as well as Federal, State, and local safety codes and regulations.

Each trade partner is responsible to follow the Turner Construction Company's Substance Abuse Program.

All trade partners are responsible for training their employees in the recognition of hazards which could result in an illness or injury. Training must include procedures for proper elimination or control of unsafe conditions.

Good safety practices carried out on this project will produce a safe and healthful workplace for all employees.

Neglecting safety is neglecting job responsibilities.

TRADE PARTNER AGREEMENT & SIGNATURE

We are in receipt of and will cooperate and comply with all elements contained within this Project Safety Program and Turner Construction Company's Environmental Health and Safety Policy, adhering to the most stringent rules between the two.

A copy of the Project Safety Program will be provided and discussed with all assigned project personnel, prior to starting work on this project.

Company Name:	
Company Representative's Name (please print):	
Company Representative's Signature:	
Company Representative's Title:	
oday's Date:	

March 12, 2024

Re-

University of Kentucky – Agricultural

Contract No. 240216
Lexington KY

To Whom It May Concern:

Please find enclosed the billing package for the Interventional project. This package contains the following:

- Billing Schedule
- Application/Waiver for Billings (to be submitted via Textura)
- AIA G703 Application Continuation Sheet (submitted via Textura)
- JCC2 Waiver/JCC3 Waiver/JCC4 Waiver (tier subs/suppliers due by the 30th of each month, available on request)
- Bill of Sale/Deed of Lease (for offsite Stored Materials, available on request)
- Loss Payable Endorsement (for offsite Stored Materials, available on request)
- W-9

Very truly yours,

Your Schedule of Values on Form G703 shall be sent to the Project Manager/Superintendent at the jobsite for approval prior to submission of the first application. All pencil copies shall also be submitted via Textura per the attached billing schedule. These dates will be subject to change monthly depending upon Pencil Review meeting dates with Owner/Architect. You will be notified via Textura/email on when to submit. Please be advised that there will be no grace period honored submission of billings. If payment applications are not submitted via Textura on or before the dates on the Billing Schedule (subject to change monthly), payment will not be processed for that month. These will need to be billed the following month. In the current economic conditions, Turner will not delay payments to all subcontractors as a result of late submissions from a few. Please help us get you paid! Waivers of Lien are also needed from any and all second and subsequent tier subcontractors and/or materialmen. Please note that some forms require to be notarized.

If you are not a current vendor of ours then the W-9 form needs to be completed and returned to me on or before the date of your first application for payment.

All payments shall be in accordance with the terms of your subcontract and deposited via wire thru Textura.

Turner may from time to time to contact your lower tier subs for payment verification.

Please complete and return a signed copy of this letter to the address shown below, and provide an accounting contact and phone number so we will know whom to contact concerning billing matters.

If you have any questions regarding the above, please contract me at (513) 721-4224.

Sherry L. Macht Accounting Manager	
Received by:	Date:
Telephone Number:	Fax Number:

University of Kentucky CONTRACT NO. 240216

2024 CONTRACTOR BILLING SCHEDULE

Pay Apps Due via <u>Textura</u>	Pay App Review w/ Owner & Arch.
January 16, 2024 February 14, 2024	January 24, 2024 February 21, 2024
March 19, 2024	March 27, 2024
April 17, 2024	April 24, 2024
May 15, 2024	May 22, 2024
June 18, 2024	June 26, 2024
July 16, 2024	July 24, 2024
August 21, 2024	August 28, 2024
September 17, 2024	September 25, 2024
October 23, 2024 November 13, 2024	October 30, 2024 November 20, 2024
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Note....these dates are subject to change depending upon pencil meeting with the owner/architect. You will be notified via Textura email when the draw is open and when it will close.

то:	TURNER CONSTRUCT 250 West Court Street, Cincinnati, Ohio 45202		,	FROM: (Subcontracto	or)	***	
	PH: (513)721-4224 ; Fa	ix: (513) 721-256	61	Telephone No.: Invoice No.:			
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	Agricultural						
	Contract No.	240216					
Original Su	ubcontract Sum	\$	\$0.00	Total Completed & S	Stored to Date	\$	\$0.00
Approved	Change Orders to Date	\$	\$0.00	Less Retainage at _	%	\$	\$0.00
(Through (Change Order #)			Total Earned Less R	etainage	\$	\$0.00
Subcontra	ct Sum to Date	\$	\$0.00	Less Previous Certif	icates for Payment	\$	\$0.00
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Notary Public:

CONTINUATION SHEET
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AA DOCUMENT 0793 | Instruction on reverse sides | PALIE.

APPLICATION NUMBER. 106/2011

PERIOD TO 10/3/2011

ARCHITECT'S PROJECT NO.

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(Rev. October 2018) Department of the Trees,

Request for Taxpayer Identification Number and Certification

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

	1 Name (as shown on your income tax return). Name Is required on this tine; d	o not leave this line blank.								
	2 Business name/disregarded entity name, if different from above									
раде 3.	3 Check appropriate box for federal tax classification of the person whose ner following seven boxes.	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):								
8	☐ Individual/sole proprietor or ☐ C Corporation ☐ S Corporation single-member LLC	Partnership Trust/estate	Exempt payee code (if any)							
83	Limited liability company. Enter the tax classification (C=C corporation, 8									
Print or type. Specific Instructions	Note: Check the appropriate box in the line above for the tax classification LLC if the LLC is classified as a single-member LLC that is disregarded from the owner for U.S. federal tax p is disregarded from the owner should check the appropriate box for the t	Exemption from FATCA reporting code (if any)								
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you he	cation instructions. You must cross out item 2 above if you have been no two failed to report all interest and dividends on your tax return. For real existion or abandonment of secured property, cancellation of debt, contributions interest and dividends, you are not required to sign the certification.	state transactions, item 2 does not appry. P Lions to an individual retirement arrangemen	or morrgage interest paid, it (IRA), and generally, payments							
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relate	e developments. For the latest information about developments d to Form W-9 and its instructions, such as legislation enacted hey were published, go to www.irs.gov/FormW9.	 Form 1099-B (stock or mutual fund sales and certain other transactions by brokers) 								
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inform	dividual or entity (Form W-9 requester) who is required to file an nation return with the IRS must obtain your correct taxpayer lication number (TIN) which may be your social security number	1098-T (tuition) • Form 1099-C (canceled debt)	4, 1000 2 (0100011110111111111111111111111							
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taxpa (FIM)	yer identification number (ATIN), or employer identification number to report on an information return the amount paid to you, or other nt reportable on an information return. Examples of information	Use Form W-9 only if you are a U.S allen), to provide your correct TIN.								
return	is include, but are not limited to, the following.	If you do not return Form W-9 to the requester with a TIN, you might								

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding.

later.

• Form 1099-INT (interest earned or paid)

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
 - 2. Certify that you are not subject to backup withholding, or
- 3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- 4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See What is FATCA reporting, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- · An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the taws of the United States;
- · An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9, instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

if you are a U.S. resident allen who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

- The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
 - 2. The treaty article addressing the income.
- The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
- 4. The type and amount of income that qualifies for the exemption from tax.
- Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalies, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing bost operators. Reaf estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TiN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding it:

- 1. You do not furnish your TIN to the requester,
- 2. You do not certify your TiN when required (see the Instructions for Part II for details).
 - 3. The IRS tells the requester that you furnished an incorrect TIN,
- 4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
- You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See Exempt payee code, later, and the separate instructions for the Requester of Form W-9 for more information.

Also see Special rules for partnerships, earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See Exemption from FATCA reporting code, later, and the instructions for the Requester of Form W-8 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the granter of a granter trust dies.

Penaities

Faiture to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for faisifying information. Willfully faisifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TiNs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; do not teave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. Individual. Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

- b. Sole proprietor or aingle-member LLC. Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.
- c. Partnership, LLC that is not a single-member LLC, C corporation, or S corporation. Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.
- d. Other entities. Enter your name as shown on required U.S. federal tex documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.
- e. Disregarded entity. For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TiN.

Line 2

If you have a business name, trade name, DSA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

(F the entity/person on line 1 is a(n)	THEN check the box for					
Corporation	Corporation					
 Individual Sole proprietorship, or Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes. 	Individual/sole proprietor or single- member LLC					
 LLC treated as a partnership for U.S. federal tax purposes, LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or 	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)					
 LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes. 						
Partnership	Partnership					
Trust/estate	Trust/estate					

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2-The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5-A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8-A real estate investment trust
- 9—An entity registered at all times during the tax year under the investment Company Act of 1940
- 10-A common trust fund operated by a bank under section 584(a)
- 11-A financial institution
- 12—A middleman known in the investment community as a nominee or custodism
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for	THEN the payment is exempt for
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through δ ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

See Form 1099-MISC, Miscellaneous income, and its instructions.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

- A-An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)
 - B-The United States or any of its agencies or instrumentalities
- C-A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)
- E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)
- F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state
 - G-A real estate investment trust
- H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the investment Company Act of 1940
 - I-A common trust fund as defined in section 584(a)
 - J-A bank as defined in section 581
 - K-A broker
- L—A trust exempt from tax under section 684 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

l ine f

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident allen and you do not have and are not eligible to get an SSN, your TIN is your IRS individual texpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see How to get a TIN below.

if you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See What Name and Number To Give the Requester, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/Businesses and clicking on Employer Identification Number (EIN) under Starting a Business. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

if you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and cartain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TiN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payers, see Exempt payer code, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

- 1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.
- 2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your corract TIN to the requester, you must cross out item 2 in the certification before signing the form.
- 3. Real estate transactions. You must sign the certification. You may cross out Item 2 of the certification.
- 4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalities, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).
- 5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), iRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
Two or more individuate (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Two or more U.S. persons (joint account meintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The granter-trustee
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
6. Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Granter trust tiling under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i) (A))	The gruntor*
For this type of account:	Give name and EIN of:
B. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2563	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
	The partnership
12. Partnership or multi-member LLC	

For this type of account:	Give name and EIN of
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(0(5))	The trust

- ¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.
- 2 Circle the minor's name and furnish the minor's SSN.
- You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.
- ⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see Special rules for partnerships, earlier.
- *Note: The grantor also must provide a Form W-9 to trustee of trust.

 Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN.
- · Ensure your employer is protecting your SSN, and
- . Be careful when choosing a tax preparer.

If your tax records are affected by identity that and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious smalls or phishing schemes. Phishing is the creation and use of small and websites designed to mimic legitimate business smalls and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scarn the user into surrandering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpeyers via smalls. Also, the IRS does not request personal detailed information through small or ask taxpeyers for the PIN numbers, pesswords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at spam@uce.gov or report them at www.ftc.gov/complaint. You can contact the FTC at www.ftc.gov/idtheft or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see www.ldentityTheft.gov and Pub. 5027.

Visit www.irs.gov/identityTheft to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

ATTACHMENT "F"

Percentage Markup and Procedures Applicable to Work Added to or Deleted from the Original Contract Requirements

LUMP SUM

Predetermined Lump Sum additions and/or omissions to the Agreement are to be based upon the estimated "Net Actual Cost", plus the following maximum %'s for Overhead and Profit. The percentages for Overhead and Profit will be negotiated and may vary according to the nature, extent and complexity of the work involved. Not more than three percentage calculations each not to exceed the maximum percentages shown below, will be allowed regardless of the number of tiers of subcontractors. That is, the markup on work subcontracted by a subcontractor will be limited to one overhead and profit percentage in addition to the prime contractor's overhead and profit percentage. On proposals for decreases in the amount of the contract, the overhead and profit will be added to the "Net Actual Cost", thereby increasing the credit that would be deducted from the price of this agreement:

	LABOR & MATERIAL	SUBLET WORK
Additions:	OH & P <u>10%</u>	OH & P <u>10%</u>
Omissions/Credits:	OH & P <u>10%</u>	OH & P <u>10%</u>

TIME AND MATERIAL

Contract Work, authorized by Turner in advance to be performed on a Time and Material Basis, is to be based upon the "Net Actual Cost" plus the following Percentages for Overhead and Profit:

	LABOR & MATERIAL	SUBLET WORK
Additions:	OH & P <u>10%</u>	OH & P <u>10%</u>

GENERAL

- 1. Submission of estimates and costs shall be itemized in a form satisfactory to Turner to permit ready analysis and evaluation. On time and material work, daily reports (in duplicate and showing all field and shop labor expended and/or material delivered) shall be submitted to Turner. Invoices shall be submitted monthly.
- 2. No overhead and profit will be permitted on premium time.
- 3. Percentages shall apply to net differences in quantities for adds and deducts in any one change.
- 4. Percentages applied by sub-subcontractors shall not exceed those of this subcontractor.
- 5. Net Actual Cost

A. Labor:

- 1. Wages of labor, including foremen, engaged in work and directly on the Subcontractor's payroll.
- 2. Engineering and drafting performed at the Site with Turner's prior written approval.
- 3. Fringe Benefits established by governing trade organizations.
- 4. Federal Old Age Benefits, Federal and State Unemployment Taxes.
- 5. Net actual premium paid for Public Liability, Workers' Compensation, Property Damage, and any other forms of insurance required by Turner.

B. Material:

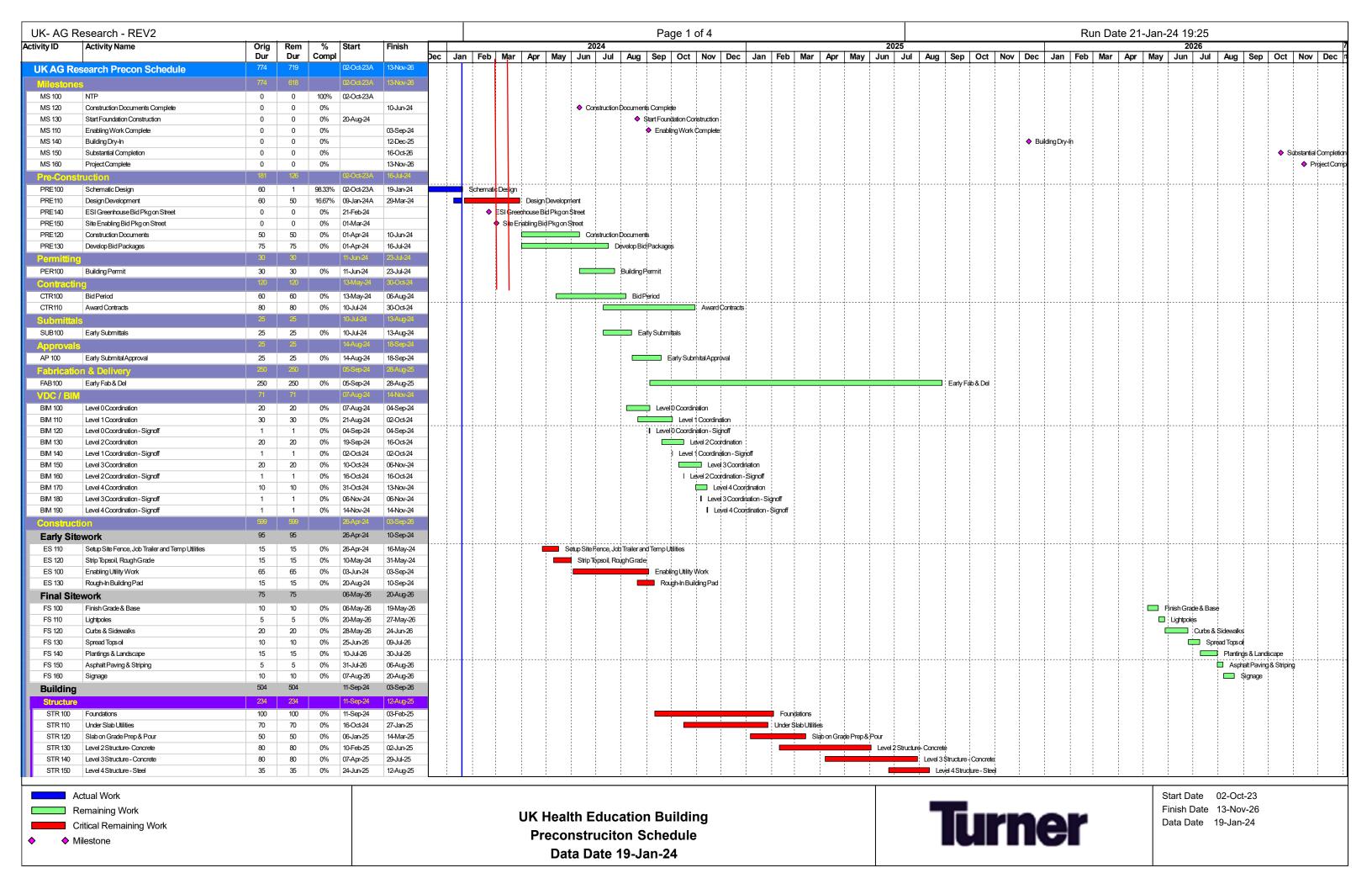
- 1. Net cost of construction materials and supplies (FOB Job Site, where applicable) including applicable Sales and/or Use taxes if allowed by contract, trade and cash discounts.
- 2. Costs of a special nature, approved in advance by Turner, such as for riggers, labor, transportation, equipment rentals, royalties, permits, and other expenses of this general nature.

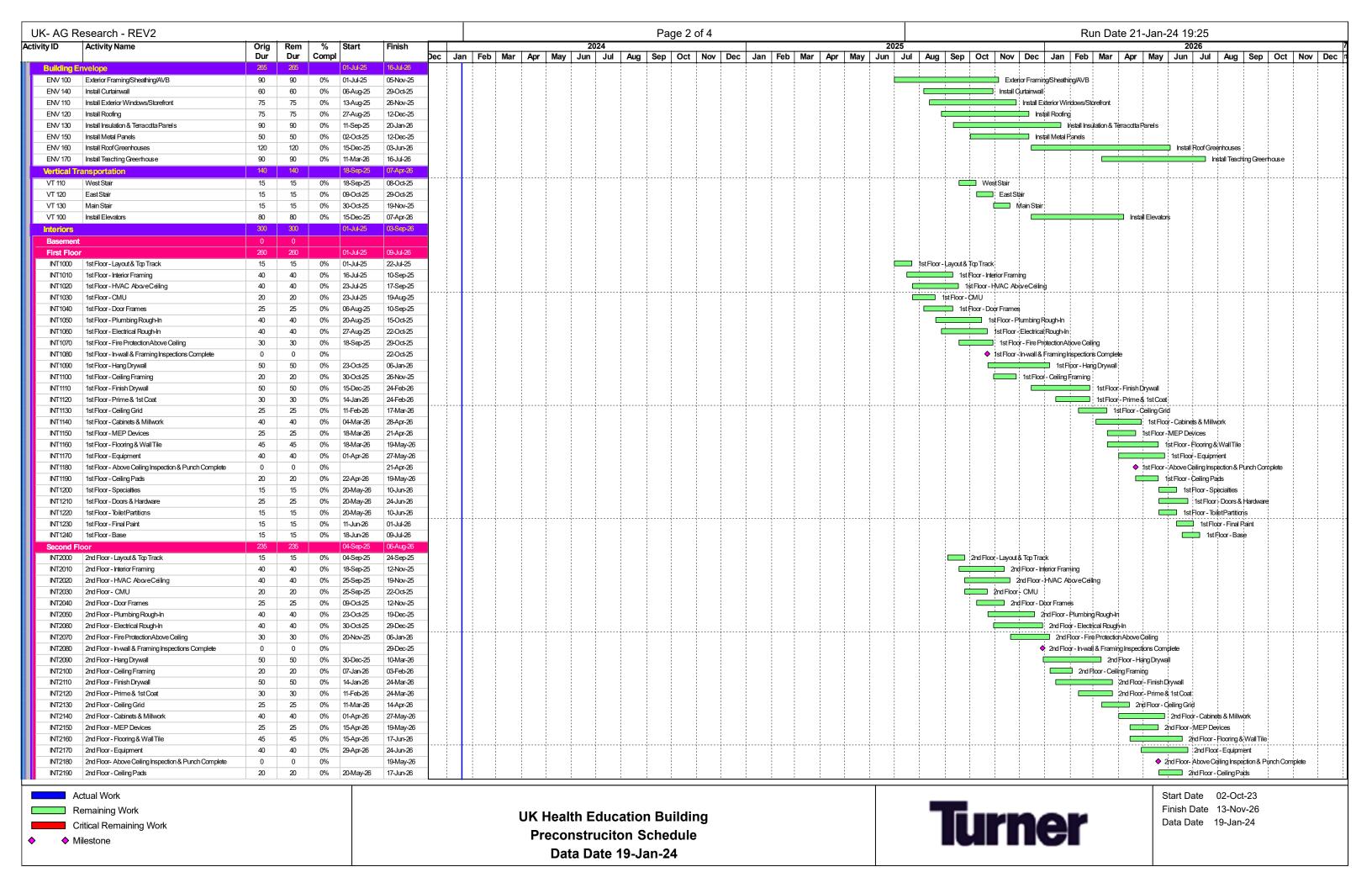
C. Sublet Work:

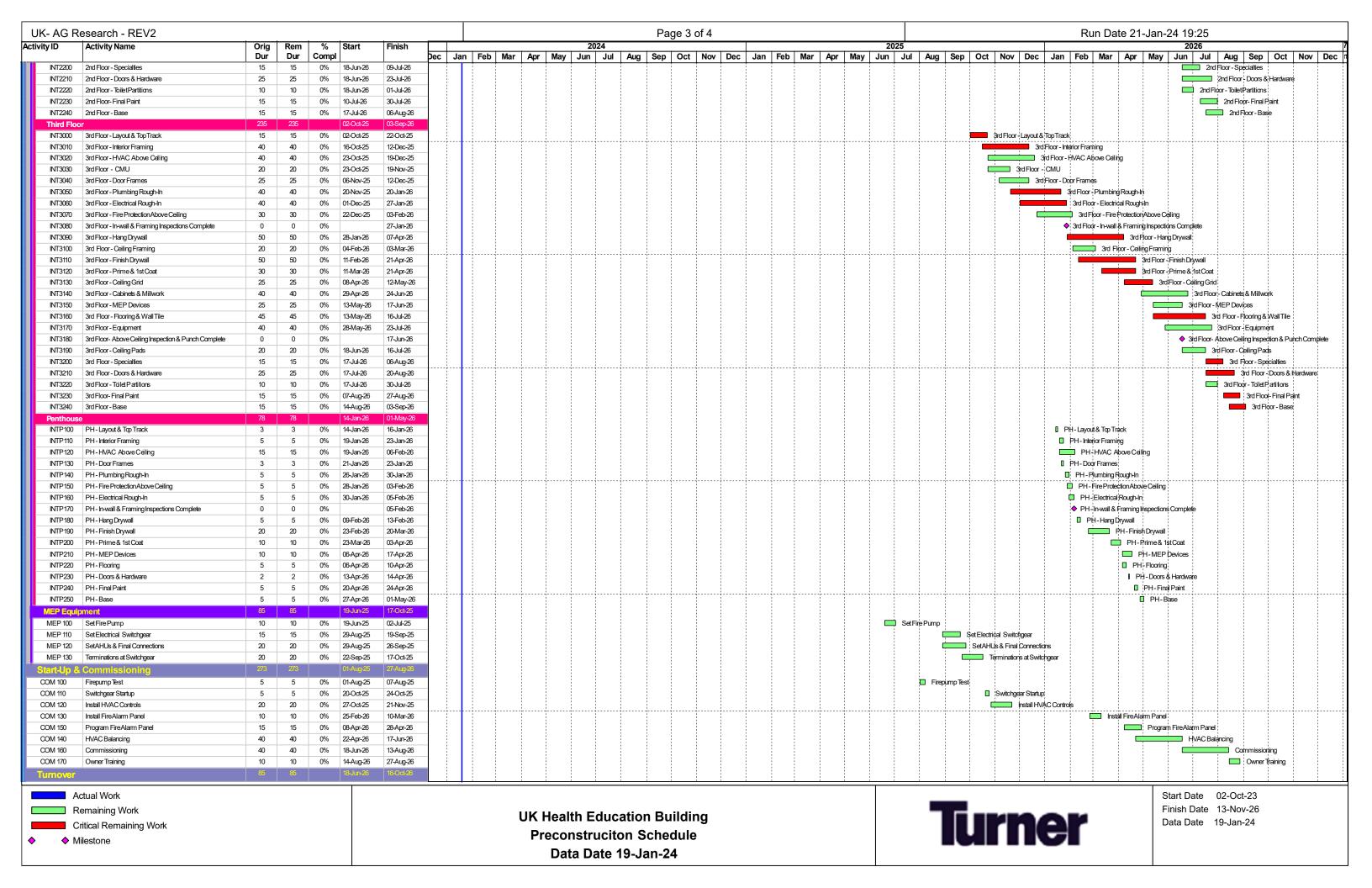
- 1. Net cost to the Subcontractor of work sublet by him.
- 6. Percentages shall include the following overhead costs:
 - A. Supervision (Including Field) and executive expenses.
 - B. Small tools, scaffolding, blocking, shores, appliances, etc. and the expense of maintaining same.
 - C. Administrative expenses, clerical, etc., both at the Job Site and in the Subcontractor's Office.
 - D. Taxes and any bonds required to be paid by the Subcontractor, but not included under the aforementioned Net Actual Costs.

Initial		
Turner	Subcontractor	

7. 8.	Percentage markup for overhead and profit for Sub Subcontractors shall be limited to the above listed percentages also. Percentages shall include all profit.
9.	The Subcontractor will be at risk if adherence to these procedures is not followed.
Initial	
	Subcontractor







UK- AG Research - REV2									Page 4 of 4								Run Date 21-Jan-24 19:25																														
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Actual Work

Remaining Work

Critical Remaining Work

Milestone



ATTACHMENT "L" Lean Construction ATTACHMENT TO THE SUBCONTRACT AGREEMENT BETWEEN TURNER AND SUBCONTRACTOR

Lean focuses on maximizing customer value while eliminating waste through continuous improvement and respect for people. Turner expects that all subcontractors and suppliers will focus on continuous improvement of the construction process. Turner, subcontractors, and suppliers shall in good faith collaboratively participate in learning, planning, control processes, and strategies to achieve the goal of greatest productivity for the project; maximizing the value delivered to the customer. Maximizing value requires elimination of waste in all processes and implementing improvements at every opportunity. Subcontractors and suppliers will assign on-site leadership whose behaviors support collaboration with the project team.

Turner may utilize some or all of the approaches and tools listed below to reduce waste. Subcontractors and suppliers will coordinate with Turner in implementing these activities. The project team may research, develop, and implement other approaches and tools for the betterment of the project.

5S Methodology

5S is a system to optimize productivity and safety through maintaining an orderly workplace and using visual cues to achieve more consistent operational results.

- 1. **Sort** Eliminate all unnecessary tools, parts, materials. Keep only essential items, eliminate what is not required, prioritize things per schedules/requirements and keeping them in easily accessible places.
- 2. **Straighten (Set in Order for Flow)** Arrange the work, workers, equipment, parts, and instructions in such a way that work flows free of waste through value added tasks. Identify locations where items will be used and place those items close. Organize and communicate the location for items needed in the area.
- 3. **Shine (Systematic Cleaning)** Clean the workspace, jobsite, and all equipment, and keep it clean, tidy and organized. At the end of each shift, clean the work area and be sure everything is restored to its place. Remove crates, pallets, dunnage, packing materials, etc., immediately preferably before entering the building footprint. Create elevated workstations for ergonomic working and more efficient cleanup. Employ a 'Nothing Hits the Ground' mentality to keep the project clean and free of waste.
- 4. **Standardize** Develop cleaning schedules and cleanliness standards to maintain the first 3S's. Employ visual management to reveal abnormalities and variations.
- 5. **Sustain** Ensure disciplined adherence to rules and procedures to prevent backsliding.

Last Planner® System: Production System Planning

Subcontractors shall participate in weekly coordination meetings and shall provide updated weekly work plans on a weekly basis throughout the scheduled installation period. All subcontractors pledge to cooperate with each other and coordinate their work for the overall good of the project. Turner reserves the right to adjust and update the overall project schedule based on project conditions, actual performance of the work, and detailed schedule information obtained from subcontractors. This update is intended to be for the betterment of the project as a whole, not for advantage of the parts. At Turner's discretion, it may utilize The Last Planner® System (LPS) for developing additional coordination details over the life of the project—this process is part of the Bid Packages as described herein.

Overview: LPS provides principles to improve coordination and create flow between contract milestone dates in the contract (or master) schedule. When production planning becomes reliable and people fulfill their commitments, workflow, performance, and productivity are improved. Turner may require Subcontractor

Foremen, Superintendents and Project Manager to attend orientation and training sessions to prepare for the implementation of LPS. When utilizing LPS, project teams will develop a specific workflow for its completion, detailing requirements for plan submissions and meeting schedule.

Application: LPS differs from traditional construction methods because it decentralizes hierarchical decision-making. With LPS, those closest to the work (On Site Foremen/Field Supervisors—the "Last Planners") must have the authority to make decisions and plan the work.

The project will utilize six key procedures in the implementation of LPS. These steps require the input of the onsite Foremen/Field Supervisors for the subcontractors performing the work. As such, these leaders are required to participate in all the steps that are the LPS and be able to commit to perform work they know can be made ready for their crews and to collaborate with the team to ensure this work can be started and completed without interruption. The Last Planner for your crew must be involved before you mobilize to the project in order to attend these Phase Production Planning meetings.

Pull Planning – This represents the team's specific plan for how they intend to reach the milestone dates in the contract schedule. Pull plans must meet the contract schedule requirements, and teams must work together to achieve these project milestones. Turner requires team members to make and keep commitments based on their confidence that prerequisite work, design information, materials, labor, and equipment will be ready so they can start and complete installations meeting their commitments to reach milestones in the contract schedule.

Production Planning – This is simply the future weeks (typically six weeks) of the pull plans, updated with actual information weekly. Constraints preventing these activities in the next six weeks are identified and added to the constraint log. The Production Plan is prepared by Turner and distributed to the project team based upon the information collected in the pull-planning sessions and by actual weekly production results.

Constraint Log – The constraint log is maintained by Turner and used to aid the team in managing the Production Plan. A constraint is any information, material, equipment or resource needed to start and/or complete a specific task on the project, except prerequisite work. The constraint log is used to visualize and communicate information regarding constraints as well as to track and record commitments from individuals to remove the constraints.

Weekly Work Plans (WWP) –The WWP is a detailed day-by-day, one week production plan created by each trade foremen to plan the next week's work, based on the project's production plan. WWP's are due weekly at a time established by Turner for the work to be performed the following week. Turner will establish the format for WWP's and the method of delivery, typically in Microsoft Excel.

Percent Plan Complete (PPC) – PPC is a calculation of the team's planning reliability. This is done to identify trends preventing the reliability of commitments. The PPC represents the percentage of tasks completed as planned compared to the total number of tasks planned within the week.

Daily Production Huddle – Subcontractor foremen and Turner will meet for daily discussion with their peers from other trades and Turner field staff to assess the day's performance and discuss any new issues discovered. Turner's project superintendent will identify the time and place of the daily huddle.



Digital Data Licensing Agreement

AGREEMENT made as of the day of (In words, indicate day, month, and year.)

in the year

BETWEEN the Party transmitting Digital Data ("Transmitting Party"): (Name, address, and contact information, including electronic addresses)

JRA Architects 3225 Summit Square Place Ste. 200 Lexington, KY 40509

and the Party receiving the Digital Data ("Receiving Party"): (Name, address, and contact information, including electronic addresses)

for the following Project: (Name and location or address of the Project)

UK Health Education Building Lexington, KY

for the following Digital Data ("Digital Data"): (Identify below, in detail, the information created or stored in digital form that the Parties intend to be subject to this Agreement.)

The Transmitting Party and Receiving Party agree as follows.

TABLE OF ARTICLES

- 1 GENERAL PROVISIONS
- 2 TRANSMISSION OF DIGITAL DATA
- 3 LICENSE CONDITIONS
- 4 LICENSING FEE OR OTHER COMPENSATION

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.

ARTICLE 1 GENERAL PROVISIONS

- § 1.1 The purpose of this Agreement is to grant a license from the Transmitting Party to the Receiving Party for the Receiving Party's use of Digital Data and to set forth the license terms.
- § 1.2 This Agreement is the entire and integrated agreement between the Parties. Except as specifically set forth herein, this Agreement does not create any other contractual relationship between the Parties.
- § 1.3 Confidential Digital Data is Digital Data containing confidential or business proprietary information that the Transmitting Party designates as "confidential."

ARTICLE 2 TRANSMISSION OF DIGITAL DATA

- § 2.1 The Transmitting Party grants to the Receiving Party a nonexclusive limited license to use the Digital Data solely and exclusively for the uses, and in accordance with the terms, set forth in Article 3.
- § 2.2 Only the Receiving Party is permitted to access and use the Digital Data. Unlicensed and unauthorized access or use by third parties is strictly prohibited except as set forth in Section 2.4.1.
- § 2.3 The transmission of Digital Data constitutes a warranty by the Transmitting Party to the Receiving Party that the Transmitting Party is the copyright owner of the Digital Data or otherwise has permission to transmit the Digital Data to the Receiving Party for its use on the Project in accordance with the terms and conditions of this Agreement.
- § 2.4 Where the Transmitting Party has designated information furnished pursuant to this Agreement as "confidential," the Receiving Party shall keep the information confidential and shall not disclose it to any other person or entity except as set forth in Section 2.4.1.
- § 2.4.1 The Receiving Party may disclose Confidential Digital Data after seven (7) days' notice to the Transmitting Party where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Receiving Party may also disclose Confidential Digital Data to its employees, consultants, sureties, subcontractors and their employees, sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.
- § 2.5 By transmitting Digital Data, the Transmitting Party does not convey any ownership right in the Digital Data or in the software used to generate the Digital Data. Unless otherwise granted in a separate license, the Receiving Party's right to use, modify, or further transmit Digital Data is specifically limited to those uses, and in accordance with the terms, set forth in Article 3, and nothing contained in this Agreement conveys any other right to use the Digital Data.
- § 2.6 To the fullest extent permitted by law, the Receiving Party shall indemnify and defend the Transmitting Party from and against all claims arising from or related to the Receiving Party's modification to, or unlicensed use of, the Digital Data.
- § 2.7 Transmission of the Digital Data does not abridge or extinguish the Transmitting Party's rights, including, to the extent applicable, exclusive ownership interest, in such information under all applicable state, federal, and international laws including, without limitation, laws governing the protection of copyrights and intellectual property.
- § 2.8 The provisions of this Article 2 shall survive the termination of this Agreement.

ARTICLE 3 LICENSE CONDITIONS

Init.

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- § 3.1 The Receiving Party may use and rely upon the Digital Data to the extent set forth in this Article 3. (Choose only one option below.)
 - § 3.1.1 The Digital Data is transmitted solely for the Receiving Party's information. Receiving Party acknowledges that any use of the Digital Data shall be at Receiving Party's sole risk. The Receiving Party accepts the Digital Data "as is" without any warranty or representations from the Transmitting Party as to whether the Digital Data is accurate, complete, or fit for use as intended by the Receiving Party. The Receiving Party is solely responsible for verifying whether the Digital Data is accurate, complete, or fit for the Receiving Party's intended use.

	[]		§ 3.1.2 Other: (Identify terms, permitted uses, or other conditions related to the Digital Data.)
				ecific terms or uses are selected or set forth in Section 3.1, then the Receiving Party may use the Digital e risk pursuant to the terms and conditions set forth in Section 3.1.1.
The Party	Re /'s e t	cei us he	ivin e of fee,	LICENSING FEE OR OTHER COMPENSATION g Party agrees to pay the Transmitting Party the following fee or other compensation for the Receiving f the Digital Data: in dollars, or other method by which the Receiving Party will compensate the Transmitting Party for the rty's use of the Digital Data.)
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as se (Indi	t fo	ort te	h be whe	ent is entered into as of the day and year first written above and terminates one year from said date, except blow. In this Agreement will terminate, if other than one year from the date it was entered into, and other lated to termination.)
None	•			
TRAI	VS.	MI	TTIN	IG PARTY (Signature) RECEIVING PARTY (Signature)

RECEIVING PARTY (Signature)

(Printed name and title)

Init.

D. Robert Deal, AIA, President

(Printed name and title)

Additions and Deletions Report for

AIA® Document C106™ – 2022

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 14:41:13 ET on 11/13/2023.

PAGE 1

JRA Architects
3225 Summit Square Place Ste. 200
Lexington, KY 40509

UK Health Education Building Lexington, KY PAGE 3

None

None

D. Robert Deal, AIA, President

Certification of Document's Authenticity

AIA® Document D401™ – 2003

, hereby certify, to the best of my knowledge, information and belief, that I created the atta multaneously with its associated Additions and Deletions Report and this certification at 14:4 ader Order No. 4104239914 from AIA Contract Documents software and that in preparing to be cument I made no changes to the original text of AIA® Document C106 $^{\text{TM}}$ – 2022, Digital I greement, other than those additions and deletions shown in the associated Additions and Deletions and Deletions shown in the associated Additions and Deletions and Deletions and Deletions are considered as a constant of the contract of the con	1:13 ET on 11/13/2023 ne attached final Data Licensing
Signed)	
Title)	
Dated)	

University of Kentucky

Tree Protection Standards

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Dated: 05/2017

Article 56 is in addition to, and takes precedence over the provisions of the Special Conditions for the Project.

ARTICLE 56
PART 1 – GENERAL

56.1.1 SUMMARY

- A. The scope of work includes all labor, materials, tools, equipment, facilities, transportation and services necessary for, and incidental to performing all operations in connection with protection of existing trees and other plants as shown on the drawings and as specified herein.
 - 1. Provide preconstruction evaluations and Arborist Report.
 - 2. Provide tree and plant protection fencing.
 - 3. Provide protection of root zones and above ground tree parts and plants.
 - 4. Provide pruning of existing trees and plants.
 - 5. Provide all insect and disease control.
 - 6. Provide maintenance of existing trees and plants including irrigation during the construction period as recommended by the Arborist Report.
 - 7. Provide maintenance of existing trees and plants including irrigation during the post construction plant maintenance period.
 - 8. Remove tree protection fencing and other protection from around and under trees and plants.
 - 9. Clean up and disposal of all excess and surplus material.

56.1.2 CONTRACT DOCUMENTS

A. Shall consist of specifications, general conditions and the drawings. The intent of these documents is to include all labor, materials, and services necessary for the proper execution of the work. The documents are to be considered as one. Whatever is called for by any parts shall be as binding as if called for in all parts.

B. It is the intent of this section that the requirements apply to all sections of the project specification such that any trade contractor must comply with the restrictions on work within designated Tree and Plant Protection Areas.

56.1.3 RELATED DOCUMENTS AND REFERENCES

A. Related Documents:

- 1. Drawings and general provisions of contract including general and supplementary conditions and Division I specifications apply to work of this section.
- 2. Section -Planting Soil
- 3. Section -Irrigation
- 4. Section -Planting
- 5. Section -Lawn
- B. References: The following specifications and standards of the organizations and documents listed in this paragraph form a part of the specification to the extent required by the references thereto. In the event that the requirements of the following referenced standards and specification conflict with this specification section the requirements of this specification shall prevail. In the event that requirements of any of the following referenced standards and specifications conflict with each other the more stringent requirement shall prevail.
 - ANSI A 300 (Part 5) Standard Practices for Tree, Shrub and other Woody Plant Maintenance, Management of Trees & Shrubs During Site Planning, Site Development & Construction. Most current editions.
 - 2. ANSI A 300 (Part 1) Standard Practices for Tree, Shrub and other Woody Plant Maintenance, Pruning. Most current editions.
 - 3. ANSI Z133 Safety Requirements for Arboricultural Operations.
 - 4. Glossary of Arboricultural Terms, International Society of Arboriculture, Champaign IL, most current edition.

56.1.4 VERIFICATION

A. All scaled dimensions on the drawings are approximate. Before proceeding with any work, the Trade Contractor shall carefully check and verify all dimensions and quantities, and shall immediately inform the Owner's Representative of any discrepancies between the information on the drawings and the actual conditions, refraining from doing any work in said areas until given approval to do so by the Owner's Representative.

56.1.5 PERMITS AND REGULATIONS

- A. The Trade Contractor shall obtain and pay for all permits related to this section of the work unless previously excluded under provision of the contract or general conditions. The Trade Contractor shall comply with all laws and ordinances bearing on the operation or conduct of the work as drawn and specified. If the Trade Contractor observes that a conflict exists between permit requirements and the work outlined in the contract documents, the Trade Contractor shall promptly notify the Owner's Representative in writing including a description of any necessary changes and changes to the contract price resulting from changes in the work.
- B. Wherever references are made to standards or codes in accordance with which work is to be performed or tested, the edition or revision of the standards and codes current on the effective date of this contract shall apply, unless otherwise expressly set forth.
- C. In case of conflict among any referenced standards or codes or between any referenced standards and codes and the specifications, the more restrictive standard shall apply or Owner's Representative shall determine which shall govern.

56.1.6 PROTECTION OF WORK, PROPERTY AND PERSON

A. The Trade Contractor shall protect the work, adjacent property, and the public, and shall be responsible for any damages or injury due to his/her actions.

56.1.7 CHANGES IN THE WORK

A. The Owner's Representative may order changes in the work, and the contract sum should be adjusted accordingly. All such orders and adjustments plus claims by the Trade Contractor for extra compensation must be made and approved in writing before executing the work involved.

56.1.8 DEFINITIONS

All terms in this specification shall be as defined in the "Glossary of Arboricultural Terms" or as modified below.

- A. Owner's Representative: The person appointed by the Owner to represent their interest in the Tree and Plant Protection and approval of the work and to serve as the contracting authority with the Trade Contractor. The Owner's Representative may appoint other persons to review and approve any aspects of the work.
- B. Reasonable and Reasonably: When used in this specification is intended to mean that the conditions cited will not affect the establishment or long term stability, health or growth of the plant. This specification recognizes that plants are not free of defects, and that plant conditions change with time. This specification also recognizes that some decisions cannot be totally based on measured findings and that professional judgment is required. In cases of differing opinion, the Owner's Representative expert shall determine when conditions within the plant are judged as reasonable.
- C. Shrub: Woody plants with mature height approximately less than 25 feet.
- D. Tree and Plant Protection Area: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction, and defined by a circle centered on the trunk with each tree with a radius equal to the crown dripline unless otherwise indicated by the owner's representative.
- E. Tree: Single and multi-stemmed plants with anticipated mature height approximately greater than 25 feet or any plant identified on the plans as a tree.

56.1.9 SUBMITTALS

- A. ARBORIST REPORT: Prior to the start of construction, submit, for approval by the Owner's Representative, the report of a consulting arborist who is a Registered Consulting Arborist® (RCA) with American Society of Consulting Arborists or an ISA Board Certified Master Arborist, which details the following information for all trees to remain within the area designated on the drawings as the Tree and Plant Protection Area. The report shall include the following:
 - 1. A description of each tree to protect indicating the following:
 - a. Genus and species
 - b. Condition including any visible damage to the root system or soil within the root zone
 - c. Tree diameter at 4.5 feet above grade
 - d. Tree height
 - e. Crown width
 - f. Any visible disease and/or insect infestations
 - g. Branch and/or trunk structural deficiencies.
 - h. Appraisal of value
 - i. Appraisal of benefits (storm water interception, heating/cooling, carbon sequestration)
 - 2. The report shall note all trees or parts of trees, which are considered a hazard or significant or extreme risk level. Include the International Society of Arboriculture Tree Risk Assessment evaluation sheet for each tree, which may reasonably be identified as a potential hazard tree.
 - 3. Recommendations as to treatment of all insect, disease and structural problems encountered.
 - 4. Recommendations for fertilizer treatments, if any.
 - 5. A plan of the site showing the location of all trees included in the report.
- B. PRODUCT DATA: Submit manufacturer product data and literature describing all products required by this section to the Owner's Representative for approval. Provide submittal four weeks before the start of any work at the site.
- C. QUALIFICATIONS SUBMITTAL: For each applicable person expected to work on the project, provide copies of the qualifications and experience of the Consulting Arborist, proof of either the registered Consulting Arborist® (RCA) with American Society of Consulting Arborists or an ISA Board Certified Master Arborist and any required Herbicide/Pesticide license to the Owner's Representative, for review prior to the start of work.

56.1.10 OBSERVATION OF THE WORK

A. The Owner's Representative may inspect the work at any time.

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56.1.11 PRE-CONSTRUCTION CONFERENCE

- A. Schedule a pre-construction meeting with the Owner's Representative at least seven (7) days before beginning work to review any questions the Trade Contractor may have regarding the work, administrative procedures during construction and project work schedule.
 - 1. The following Contractors shall attend the preconstruction conference:
 - a. Construction Manager.
 - b. Consulting Arborist.
 - c. Trade contractor assigned to install Tree and Plant Protection measures.
 - d. Earthwork trade contractor.
 - e. All site utility trade contractors that may be required to dig or trench into the soil.
 - f. Landscape trade contractor.
 - g. Irrigation trade contractor
- B. Prior to this meeting, mark all trees and plants to remain and or be removed as described in this specification for review and approval by the Owner's Representative.

56.1.12 QUALITY ASSURANCE

- A. Contractor qualifications:
 - 1. All pruning, branch tie back, tree removal, root pruning, and fertilizing required by this section shall be performed by or under the direct supervision of an ISA Certified Arborist. Submit aforementioned individual's qualifications for approval by the Owner's Representative.
 - 2. All applications of pesticide or herbicide shall be performed by a person maintaining a current state license to apply chemical pesticides valid in the jurisdiction of the project. Submit copies of all required state licensing certificates including applicable chemical applicator licenses.

56.1.13 DAMAGE OR LOSS TO EXISTING PLANTS TO REMAIN

- A. Specimen trees within or adjacent to construction areas will be identified by the Owner's Representative and the Architect, and marked with green tags. Loss of any of these trees will result in fines assessed at a minimum of \$10,000 (or higher appraised amount that may be determined by the University prior to construction) per tree. Damage to all other trees on the property will be assessed at the rate of \$200 per diameter inch of the tree measured 4.5' above grade.
- B. Any trees or plants designated to remain and which are damaged by the Trade Contractor

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shall be replaced in kind by the Trade Contractor at their own expense in addition to fines and penalties.

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Tree(s) shall be replaced with a tree(s) of similar species and equivalent trunk diameter to the tree(s) being replaced. For example, if a 20" diameter tree is to be replaced, the Trade Contractor can provide ten (10) two inch diameter trees. Depending on site accommodations and landscape design, the replacement trees may be installed outside of the project site as directed by the Owner's Representative. Shrubs shall be replaced with a plant of similar species and equal size or the largest size plants reasonably available whichever is less. Where replacement plants are to be less than the size of the plant that is damaged, the Owner's Representative shall approve the size and quality of the replacement plant.

- 1. All trees and plants shall be installed per the requirements of Specification Section Planting.
- C. Plants that are damaged shall be considered as requiring replacement or appraisal in the event that the damage affects more than 25 % of the crown, 25% of the trunk circumference, or root protection area, or the tree is damaged in such a manner that the tree could develop into a potential hazard. Trees and shrubs to be replaced shall be removed by the Trade Contractor at his own expense.
 - 1. The Owner's Representative may engage an independent arborist to assess any tree or plant that appears to have been damaged to determine their health or condition.
- D. Any tree that is determined to be dead, damaged or potentially hazardous by the Owner's arborist and upon the request of the Owner's Representative shall be immediately removed by the Trade Contractor at no additional expense to the owner. Tree removal shall include all clean-up of all wood parts and grinding of the stump to a depth sufficient to plant the replacement tree or plant, removal of all chips from the stump site and filling the resulting hole with topsoil.
- E. Any remedial work on damaged existing plants recommended by the Consulting Arborist shall be completed by the Trade Contractor at no cost to the owner. Remedial work shall include but is not limited to: soil compaction remediation and vertical mulching, pruning and or cabling, insect and disease control including injections, compensatory watering, additional mulching, and could include application tree growth regulators (TGR). Any remedial work is to be performed by an ISA Certified Arborist, ISA Board Certified Master Arborist or a Registered Consulting Arborist.
- F. Remedial work may extend up to two years following the completion of construction to allow for any requirements of multiple applications or the need to undertake applications at required seasons of the year.

56.1.14 LOSS OF TREES DUE TO CONSTRUCTION FOOT PRINT

A. Any trees or plants designated as removals to accommodate construction shall be replaced. Tree(s) shall be replaced with a tree(s) of similar species and equivalent trunk diameter to the tree(s) removed. For example, if a 20" diameter tree is removed, the Trade Contractor can provide ten (10) two inch diameter trees. Depending on site accommodations and landscape design, the replacement trees may be installed outside of the project site as

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directed by the Owner's Representative. Shrubs shall be replaced with a plant of similar species and equal size or the largest size plants reasonably available whichever is less.

PART 2 - PRODUCTS

56.2.1 MULCH

The coarse grade Mulch specified here is considered superior for its water retention and soil building properties in areas of tree and shrub roots when irrigation is drip, bubblers or flood methods.

- A. Mulch shall be coarse, ground, from tree and woody brush sources. The minimum range of fine particles shall be 3/8 inch or less in size and a maximum size of individual pieces shall be approximately 1 to 1-1/2 inch in diameter and maximum length of approximately 4 to 8 inches. No more that 25% of the total volume shall be fine particles and no more than 20% of total volume be large pieces. Mulch will be applied to a depth of 3 to 5 inches. Mulch shall not come into contact with the tree trunk.
 - 1. It is understood that Mulch quality will vary significantly from supplier to supplier and region to region. The above requirements may be modified to conform to the source material from locally reliable suppliers as approved by the Owner's Representative.
- B. Submit supplier's product data that product meets the requirements and two-gallon sample for approval.

56.2.2 WOOD CHIPS

A. Wood Chips from an arborist chipping operation with less than 20% by volume green leaves. Chips stockpiled from the tree removal process may be used. Mulch will be applied to a depth of 5 to 8 inches. Mulch shall not come into contact with the tree trunk.

56.2.3 TREE PROTECTION FENCING

- A. Chain link fencing shall be installed around all existing trees to remain. Fencing shall be 6' tall galvanized nine gauge, with 3" end and line post and 1" minimum top rails, and bottom tension wire a maximum of 3" off the ground. Post shall be driven into the ground and spacing shall not exceed 8 feet.
- 6 feet tall metal chain link fence set in metal frame panels on movable core drilled concrete blocks of sufficient size to hold the fence erect in areas of existing paving to remain.
- B. Orange plastic fencing shall be installed on the outside of the chain link fencing to provide high visibility.

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- C. GATES: For each fence type and in each separate fenced area, provide a minimum of one 3-foot-wide gate. Gates shall be lockable. The location of the gates shall be approved by the Owner's Representative.
- D. Submit supplier's product data that product meets the requirements for approval.

56.2.4 TREE PROTECTION SIGN

A. Heavy-duty laminated or all weather signs, 11 inches x 17 inches, white colored background with black 2 inch high or larger block letters. The signs shall be attached to the tree protection fence every 50 feet. The tree protection sign shall read:

"Tree Protection Area - Keep Out"

The following information shall also be included on the sign:

- i. Genus and species
- ii. Tree diameter
- iii. Tree height
- iv. Appraised value of tree
- v. Benefits provided
 - 1. Storm water interception in gallons
 - 2. Carbon sequestration in pounds
 - 3. Energy Savings

56.2.5 TREE (Plant) GROWTH REGULATOR (TGR/PGR)

- A. Active ingredient Paclobutrazol i.e. (ShortStop, Cambistat 25C, Profile 2SC orother)
- B. Submit supplier's product data that product meets the requirements for approval.

56.2.6 SOIL & ROOT PROTECTION

On projects where the tree protection fencing cannot be installed to create the desired protection zone.

- A. Matting for vehicle and work protection shall be heavy duty matting designed for vehicle loading over tree roots, Alturnamats as manufactured by Alturnamats, Inc. Franklin, PA 16323 or approved equal.
- B. 1/2"Steel plates Following the recommendations of the project arborist steel plates shall be installed to protect the roots from Construction activities.
- C. Submit suppliers' product data that product meets the requirements for approval.

56.2.7 GEOGRID

A. Geogrid shall be woven polyester fabric with PVC coating, Uni-axial or biaxial geogrid, inert to biological degradation, resistant to naturally occurring chemicals, alkalis, acids.

Manufacturers: GSE Environmental, TenCate, Terram

B. Submit suppliers' product data that product meets the requirements for approval.

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56.2.8 GEOTEXTILE

A. Geotextile shall be nonwoven polypropylene fibers, inert to biological degradation and resistant of naturally occurring chemicals, alkalis and acids.

Manufacturers: GSE Environmental, TenCate, Terram

B. Submit supplier's product data that product meets the requirements for approval.

PART 3 - EXECUTION

56.3.1 SITE EXAMINATION

A. Examine the site, tree, plant and soil conditions. Notify the Owner's Representative in writing of any conditions that may impact the successful Tree and Plant Protections that is the intent of this section.

56.3.2 COORDINATION WITH PROJECT WORK

- A. The Trade Contractor shall coordinate with all other work that may impact the completion of the work.
- B. Prior to the start of Work, prepare a detailed schedule of the work for coordination with other trades.
- C. Coordinate the relocation of any irrigation lines currently present on the irrigation plan, heads or the conduits of other utility lines or structures that are in conflict with tree locations. Root balls shall not be altered to fit around lines. Notify the Owner's Representative of any conflicts encountered.

56.3.3 TREE AND PLANT PROTECTION AREA

A. The Tree and Plant Protection Area is defined as all areas indicated on the tree protection plan. Where no limit of the Tree and Plant Protection area is defined on the drawings, the limit shall be the drip line (outer edge of the branch spread) of each tree.

56.3.4 PREPARATION

- A. Prior to the preconstruction meeting, layout the limits of the Tree and Plant Protection Area and then alignments of required Tree and Plant Protection Fencing and root pruning. Obtain the Owner's Representative's approval of the limits of the protection area and the alignment of all fencing and root pruning.
- B. Flag all trees and shrubs to be removed by wrapping blue plastic ribbon around the trunk and obtain the Owner's Representative's approval of all trees and shrubs to be removed prior to the start of tree and shrub removal. After approval, mark all trees and shrubs to be removed with blue paint in a band completely around the base of the shrub(s) and around the trunk of the tree(s) 4.5 feet above the ground.

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- C. Flag all trees and shrubs to remain with green plastic ribbon tied completely around the trunk or each tree and on a prominent branch for each shrub. Obtain the Owner's Representative's approval of all trees and shrubs to remain prior to the start of tree and shrub removal.
- D. Prior to any construction activity at the site including utility work, grading, storage of materials, or installation of temporary construction facilities, install all tree protection fencing, Geotextile Fabric, silt fence, tree protection signs, Geogrid, Mulch and or Wood Chips as shown on the drawing.

56.3.5 SOIL MOISTURE

A. Volumetric soil moisture level, in all soils within the Tree and Plant Protection Area shall be maintained above permanent wilt point to a depth of at least 8 inches. No soil work or other activity shall be permitted within the Tree and Plant Protection Area when the volumetric soil moisture is above field capacity. The permanent wilt point and field capacity for each type of soil texture shall be defined as follows (numbers indicate percentage volumetric soil moisture).

Soil Type	Permanent wilt point v/v	Field Capacity v/v
Sand, Loamy sand, Sandy Loam	5-8%	12-18%
Loam, Sandy clay, Sandy clay loam	14-25%	27-36%
Clay loam, Silt loam	11-22%	31-36%
Silty clay, Silty clay loam	22-27%	38-41%

- Volumetric soil moisture shall be measured with a digital, electric conductivity meter. The meter shall be the Digital Soil Moisture Meter, DSMM500 by General Specialty Tools and Instruments, or approved equivalent meter.
- B. The Trade Contractor shall confirm the soil moisture levels with a moisture meter. If the moisture is too high, suspend operations until the soil moisture drains to below field capacity.

56. 3.6 ROOT PRUNING

- A. Prior to any excavating into the existing soil grade within 25 feet of the limit of the Tree and Plant Protection Area or trees to remain, root prune all existing trees to a depth of 24 inches below existing grade in alignments following the edges of the Tree and Plant Protection Area or as directed by the Owner's Representative. Root pruning shall be in conformance with ANSI A300 Root Management Standard (part 8) latest edition.
 - 1. Using an air excavation tool to expose roots within 2 feet of the limit of grading.

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2. After completion of excavation, make clean cuts with a lopper, saw or pruner to sever roots so they will not be torn, ripped or damaged by the excavation, and backfill the trench immediately with existing soil, filling all voids.

56.3.7 INSTALLATION OF GEOGRIDS, GEOTEXTILE FABRICS, MATTING, WOOD CHIPS AND OR MULCH

A. Install geogrids, geotextile fabric, matting, wood chips and or mulch in areas and depths shown on the plans and details or as directed by the Owner's representative. In general, it is the intent of this specification to provide the following levels of protection:

- 1. All areas within the Tree and Plant Protection area provide a minimum of 5 inches of wood chips or mulch.
- 2. Areas where foot traffic or storage of lightweight materials is anticipated to be unavoidable provide a layer of Filter Fabric under the 5 inches of wood chips or mulch.
- 3. Areas where occasional light vehicle traffic is anticipated to be unavoidable, provide approved matting or a layer of geogrids under 8 inches of wood chips or mulch.
- 4. Areas where heavy vehicle traffic is unavoidable provide approved matting or a layer of geogrids under 8 -12 inches of wood chips or mulch and a layer of matting over the wood chips or mulch.
- B. The Owner's Representative shall approve the appropriate level of protection.
- C. In the above requirements, light vehicle is defined as a track skid steer with a ground pressure of 4 psi or lighter. A heavy vehicle is any vehicle with a tire or track pressure of greater than 4 psi. Lightweight materials are any packaged materials that can be physically moved by hand into the location. Bulk materials such as soil, or aggregate shall never be stored within the Tree and Plant Protection Area.

56.3.8 PROTECTION

A. Protect the Tree and Plant Protection Area at all times from compaction of the soil; damage of any kind to trunks, bark, branches, leaves and roots of all plants; and contamination of the soil, bark or leaves with construction materials, debris, silt, fuels, oils, and any chemicals substance. Notify the Owner's Representative of any spills, compaction or damage and take corrective action immediately using methods approved by the Owner's Representative.

56.3.9 GENERAL REQUIREMENTSAND LIMITATIONS FOR OPERATIONS WITHIN THE TREE AND PLANT PROTECTION AREA:

- A. The Trade Contractor shall not engage in any construction activity within the Tree and Plant Protection Area without the approval of the Owner's Representative including: operating, moving or storing equipment; storing supplies or materials; locating temporary facilities including trailers or portable toilets and shall not permit employees to traverse the area to access adjacent areas of the project or use the area for lunch or any other work breaks. Permitted activity, if any, within the Tree and Plant Protection Area may be indicated on the drawings along with any required remedial activity as listed below.
- B. In the event that construction activity is unavoidable within the Tree and Plant Protection Area, notify the Owner's Representative and submit a detailed written plan of action for approval. The plan shall include: a statement detailing the reason for the activity including why other areas are not suited; a description of the proposed activity; the time period for the activity, and a list of remedial actions that will reduce the impact on the Tree and Plant Protection Area from the activity. Remedial actions shall include but shall not be limited to the following:
 - 1. In general, demolition and excavation within the drip line of trees and shrubs shall proceed with extreme care either by the use of hand tools, directional boring and or air excavation where indicated or with other low impact equipment that will not cause damage to the tree, roots or soil.
 - 2. When encountered, exposed roots, 1 inches and larger in diameter shall be worked around in a manner that does not break the outer layer of the root surface (bark). These roots shall be covered in Wood Chips and shall be maintained above permanent wilt point at all times. Roots one inch and larger in diameter shall not be cut without the approval of the Owner's Representative. Excavation shall be tunneled under these roots without cutting them. In the areas where roots are encountered, work shall be performed and scheduled to close excavations as quickly as possible over exposed roots.
 - 3. Tree branches that interfere with the construction may be tied back or pruned to clear only to the point necessary to complete the work. Other branches shall only be removed when specifically indicated by the Owner's Representative. Tying back or trimming of all branches and the cutting of roots shall be in accordance with accepted arboricultural practices (ANSI A300, parts 1 and 8) and be performed by or direct under supervision of an ISA Certified Arborist.
 - 4. Matting: Install temporary matting over the Wood Chips or Mulch to the extent indicated. Do not permit foot traffic, scaffolding or the storage of materials within the Tree and Plant Protection Area to occur off of the temporary matting.
 - 5. Trunk Protection: Protect the trunk of each tree to remain by covering it with a ring of 8-foot-long 2-inch x 6 -inch planks loosely banded onto the tree with 3 steel bands.

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Staple the bands to the planks as necessary to hold them securely in place. Trunk protection may be kept in place no longer than 12 months. If construction requires work near a particular tree to continue longer than 12 months, the steel bands shall be inspected every six months and loosened if they are found to have become tight.

- 6. Air Excavation Tool: If excavation for footings or utilities is required within the Tree and Plant Protection Area, air excavation tool techniques shall be used where practical or as designed on the drawings.
 - a. Remove the Wood Chips from an area approximately 18 inches beyond the limits of the hole or trench to be excavated. Cover the Wood Chips for a distance of not less than 15 feet around the limit of the excavation area with Filter Fabric, tarp plastic sheeting to protect the Wood Chips from silt. Mound the Wood Chips so that the plastic slopes towards the excavation.
 - b. Using a sprinkler or soaker hose, apply water slowly to the area of the excavation for a period of at least 4 hours, approximately 12 hours prior to the work so that the ground water level is at or near field capacity at the beginning of the work. For excavations that go beyond the damp soil, rewet the soil as necessary to keep soil moisture near field capacity.
 - c. Using an air excavation tool specifically designed and manufactured for the intended purpose, and at pressures recommended by the manufacturer of the equipment, fracture the existing soil to the shape and the depths required. Work at rates and using techniques that do not harm tree roots. Air pressure shall be a maximum of 90-100 psi.
 - i. The air excavation tool shall be either the "Air-Spade" as manufactured by Division of Guardair Corporation 47 Veterans Drive Chicopee, MA 01022 (800)-482-7324, or Supersonic Air Knife as manufactured by Easy Use Air Tools, Inc. Allison Park, Pa (866) 328-5723 or approved equal.
 - d. Using a commercial, high-powered vacuum truck if required, remove the soil from the excavation produced by the Air Knife excavation. The vacuum truck should generally operate simultaneously with the hose operator, such that the soil produced is picked up from the excavation hole, and the exposed roots can be observed and not damaged by the ongoing operation. Do not drive the vacuum truck into the Tree and Plant Protection Area unless the area is protected from compaction as approved in advance by the Owner's Representative.
 - e. Remove all excavated soil and excavated wood chips, and contaminated soil at the end of the excavation.

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- f. Schedule the work so that foundations or utility work is completed immediately after the excavation. Do not let the roots dry out. Mist the roots several times during the day. If the excavated area must remain open overnight, mist the roots and cover the excavation with black plastic.
- g. Dispose of all soil in a manner that meets local laws and regulations.
- h. Restore soil within the trench as soon as the work is completed. Utilize soil of similar texture to the removed soil and lightly compact with hand tools. Leave soil mounded over the trench to a height of approximately 10% of the trench depth to account for settlement.
- i. Restore any geogrids, filter fabric, wood chips or mulch and or matting that was required for the area.

56.3.10 GRADING AND FILLING AROUND TREES

- A. Maintain existing grade within drip line of trees. Any variance to this will be executed only after consultation and recommendation from the Campus Arborist.
- B. Where existing grade is above new finish grade shown around trees, carefully hand excavate within drip line to new grade. Cut exposed roots approximately 3" below elevation of new finish grade. Engage an ISA certified Arborist to recommend procedures to compensate for loss of roots and to provide initial services such as pruning of branches and stimulation of root growth. Provide subsequent maintenance during contract period as recommended by the arborist. Provide Grounds Superintendent with typed instructions for recommended long range maintenance procedures to be followed after completion of construction operations.
- C. For minor fills where the existing grade is 4" or less below elevation of finish grade shown, use a topsoil type fill material rich in organic matter and loamy in texture. Place in single layers not more than two inches at a time and do not compact.
- D. Fills greater than four inches shall only be attempted after consultation with the Campus Arborist. Detailed shop drawings of proposed work shall be submitted and approved by the Campus Arborist prior to any work. A progress schedule shall be established to monitor the work.

56.3.11 TREE REMOVAL:

- A. Tree removals shall be performed by ISA Certified Arborists and companies shall have appropriate licenses and insurance for tree removal operations.
- B. Remove all trees indicated by the drawings and specifications, as requiring removal, ina manner that will not damage adjacent trees or structures or compacts the soil.

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- C. Remove trees that are adjacent to trees or structures to remain, in sections, to limit the opportunity of damage to adjacent crowns, trunks, ground plane elements and structures.
- D. Do not drop trees with a single cut unless the tree will fall in an area not included in the Tree and Plant Protection Area and there are no underground utilities that may be damaged. No tree to be removed within 50 feet of the Tree and Plant Protection Area shall be pushed over or uprooted using a piece of grading equipment.
- E. Protect adjacent paving, soil, trees, shrubs, ground cover plantings and understory plants to remain from damage during all tree removal operations, and from construction operations. Protection shall include the root system, trunk, limbs, and crown from breakage or scarring, and the soil from compaction.
- F. Remove stumps and immediate root plate from existing trees to be removed. Grind trunk bases and large buttress roots to a depth of the largest buttress root or at least 18 inches below the top most roots whichever is less and over the area of three times the diameter of the trunk (DBH).
 - 1. For trees where the stump will fall under new paved areas, grind roots to a total depth of 18 inches below the existing grade. If the sides of the stump hole still have greater than approximately 20% wood visible, continue grinding operation deeper and or wider until the resulting hole has less than 20% wood. Remove all wood chips produced by the grinding operation and back fill in 8 inch layers with controlled fill of a quality acceptable to the site engineer for fill material under structures, compacted to 95% of the maximum dry density standard proctor. The Owner's Representative shall approve each hole at the end of the grinding operation.
 - 2. In areas where the tree location is to be a planting bed or lawn, remove all woodchips and backfill stump holes with planting soil as defined in Specification Section Planting Soil, in maximum of 12 inch layers and compact to 80-85% of the maximum dry density standard proctor.
- G. Wood salvaged for up cycling will be identified by the Owner's Representative.
 - 1. Sections of salvaged wood shall have a clean, flat cut across both ends.
 - 2. Ends of wood sections shall be sealed with AnchorSeal after being cut and before being loaded. Branch cuts on the length of wood sections shall be sealed with AnchorSeal.
 - 3. Care shall be taken when loading wood and logs not to damage the bark connection to the wood.
 - 4. Wood and logs shall be stored so there is no contact with the ground. Wood and logs should be elevated from the ground by placing on cross beams of wood, concrete or steel. Wood and logs may also be stored on a gravel, concrete or asphalt pad.

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56.3.12 PRUNING:

- A. Within six months of the estimated date of substantial completion, prune all dead or hazardous branches larger than 2 inch in diameter from all trees to remain.
- B. Implement all pruning recommendations found in the Arborist Report.
- C. Prune any low, hanging branches and vines from existing trees and shrubs that overhang walks, streets and drives, or parking areas as follows:
 - 1. Walks within 7 feet vertically of the proposed walk elevation.
 - 2. Parking areas within 10 feet vertically of the proposed parking surface elevation.
 - 3. Streets and drives within 12 feet vertically of the proposed driving surface elevation.
- D. All pruning shall be done in accordance with ANSI A300 (part 1), ISA BMP Tree Pruning (latest edition, and the "Structural Pruning: A Guide for the Green Industry", Edward Gilman, Brian Kempf, Nelda Matheny and Jim Clark, 2013 Urban Tree Foundation, Visalia CA.
- E. Perform other pruning task as indicated on the drawings or requested by the Owner's Representative.
- F. Where tree specific disease vectors require, sterilize all pruning tools between the work in individual trees.

56.3.13 TREE (Plant) GROWTH REGULATOR APPLICATION (TGR/PGR)

A. At the start of, or prior to, the construction contract period, treat all trees indicated on the Plan with Tree Growth Regulator at the recommended rates, time of year and methods indicated by the product distributor.

56.3.14 WATERING

- A. The Trade Contractor shall be fully responsible to ensure that adequate water is provided to all plants to be preserved during the entire construction period. Adequate water is defined to be maintaining soil moisture above the permanent wilt point to a depth of 8 inches or greater.
- B. The Trade Contractor shall adjust the automatic irrigation system, if available, and apply additional water, using hoses or water tanks as required.
- C. Periodically test the moisture content in the soil within the root zone to determine the water content.

56.3.15 TURF AND WEED MAINTENANCE

A. Turf areas within the Tree and Plant Protection area shall be maintained in a manner that is consistent with University turf maintenance standards. This includes mowing, weed eating,

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edging, fertilization, weed control and leaf collection.

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- B. During the construction period, control any plants that seed in and around the fenced Tree and Plant Protection area at least three times a year.
 - 1. All plants that are not shown on the planting plan or on the Tree and Plant Protection Plan to remain shall be considered as weeds.
- C. At the end of the construction period provide one final mowing and weeding of the Tree and Plant Protection Area.

56.3.16 INSECT AND DISEASE CONTROL

A. Monitor all plants to remain for disease and insect infestations during the entire construction period. Provide all disease and insect control required to keep the plants in a healthy state using the principles of Integrated Plant Management (IPM). All pesticides shall be applied by a certified pesticide applicator.

56.3.17 CLEAN-UP

- A. During tree and plant protection work, keep the site free of trash, pavements reasonably clean and work area in an orderly condition at the end of each day. Remove trash and debris in containers from the site no less than once a week.
 - 1. Immediately clean up any spilled or tracked soil, fuel, oil, trash or debris deposited by the Trade Contractor from all surfaces within the project or on public right of ways and neighboring property.
- B. Once tree protection work is complete, wash all soil from pavements and other structures. Ensure that Mulch is confined to planting beds.
- C. Make all repairs to grades, ruts, and damage to the work or other work at the site.
- D. Remove and dispose of all excess Mulch, Wood Chips, packaging, and other material brought to the site by the Trade Contractor.

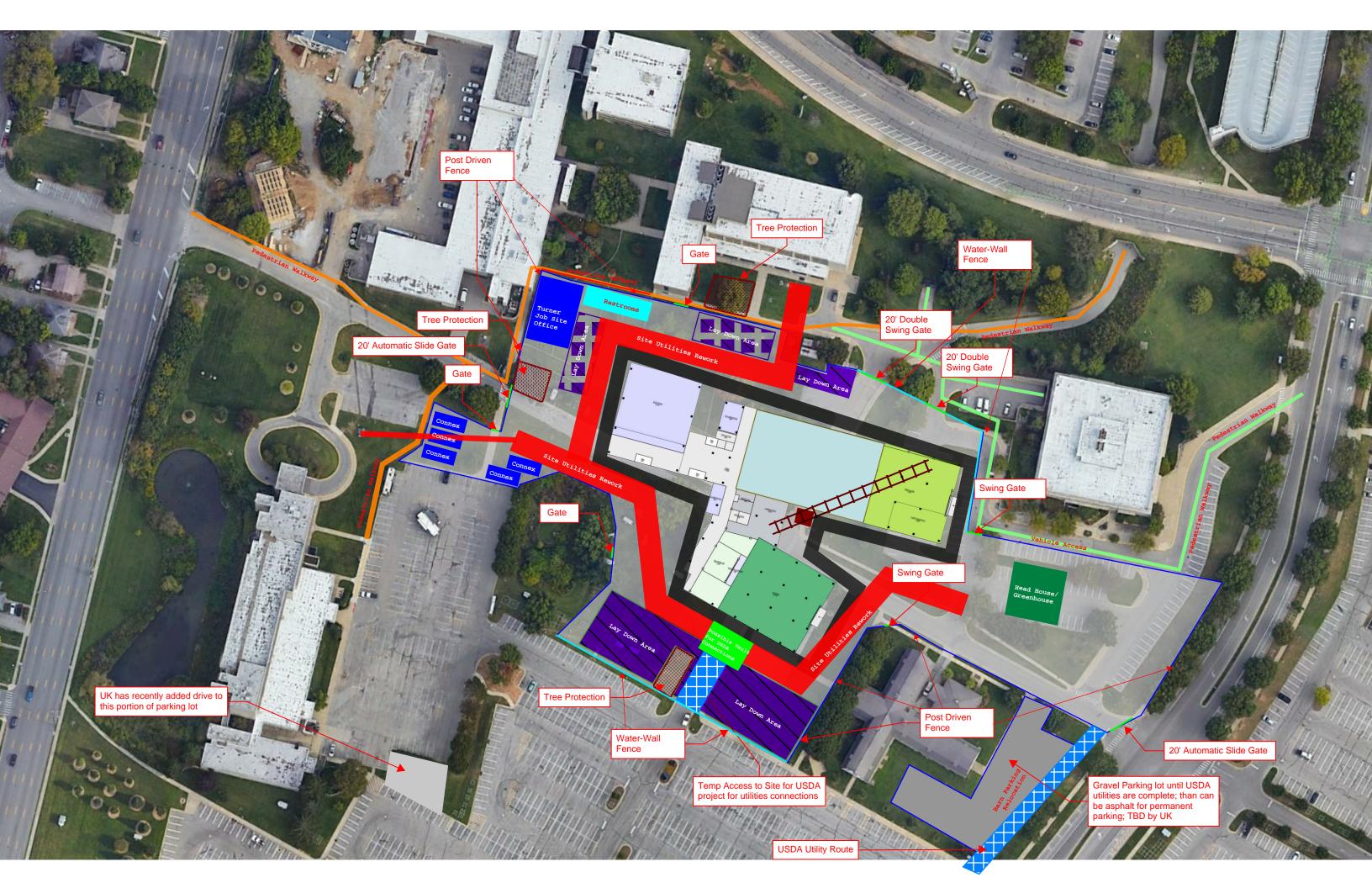
56.3.18 REMOVAL OF FENCING AND OTHER TREE AND PLANT PROTECTION

A. At the end of the construction period or when requested by the Owner's Representative remove all fencing, Wood Chips or Mulch, Geogrids and Geotextile Fabric, trunk protection and or any other Tree and Plant Protection material.

END OF SECTION

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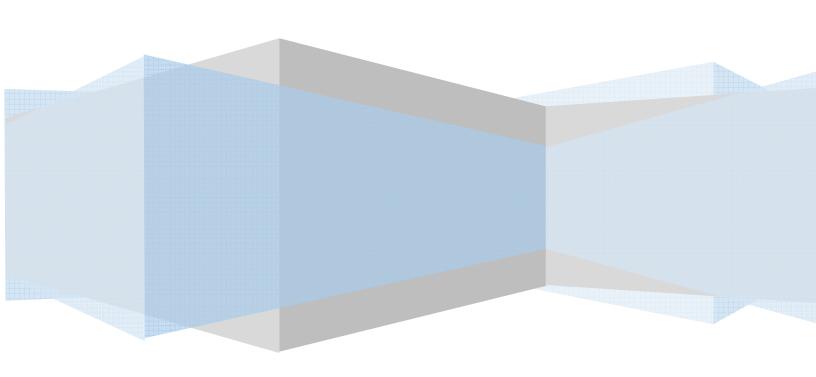
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Turner

Vertikal Subcontractor Navigation Guide

Version 001: March 2023



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Introduction

Welcome to Turner's third-party onboarding platform, managed and secured by Vertikal RMS, Inc. Here are a few things to note before proceeding:

- 1. The term "Hiring Client" is the equivalent of the Turner Construction or SourceBlue Business Unit(s) (BU) where a company submits the Onboarding form and supporting documents to for review.
- 2. A user account must have a unique email address.
- 3. For confidentiality and security reasons, a sole proprietor with their social security number as their tax identification cannot use the Onboarding platform. Please contact the local BU for assistance.
- 4. Be prepared to upload a current W9 or country-specific tax form equivalent and other supporting documents. See a complete list of required documents below.
- 5. Register with your legal "Company Name" as shown on your company tax returns. DO NOT reference a "dba" name.
- 6. If a company requires more than one user account, email servicedesk@tcco.com to request additional user accounts. The email must include the following:
 - o A copy of your W9 or country-specific tax equivalent form
 - The user's first and last name
 - o User's telephone number; and
 - Unique email address not already in use
- 7. Although one hiring client is selected at registration as the primary Business Unit to receive the notification when your prequal is submitted, you can choose additional Business Units within the form. We suggest reaching out to the other selected hiring clients with notice of application submission, providing those Procurement departments the opportunity to review your application as well.

Please note if you have already completed Turner's onboarding process, you don't have to complete it again Required Documents

Before starting the Onboarding process, gather the following documentation to expedite the completion of the application and be ready to upload where indicated:

- Copy of W9 form or country-specific tax equivalent
- List of company license numbers
- List of state/province sales tax numbers
- List of state unemployment insurance numbers (if applicable)
- List of current projects
- List of recently completed projects
- Current financial statement
- Under-represented Business Enterprise (UBE) certification information
- Bank information (upload a Line of Credit letter from the bank)
- Dun and Bradstreet information
- Surety information (upload a letter from Surety indicating per project and aggregate bonding limits)
- Three supplier references
- Three contractor references
- Insurance policy information (upload a current sample certificate and additional insured endorsements forms)

- Copy of your Safety Program
- Independent verification letter supporting your EMR (US entities only) with the effective date (MM/DD/YEAR) for the last three years*
- Safety Data and/or OSHA 300 logs from the last three years*
- EGS Program
- Published environmental targets
- Modern slavery and human trafficking statement and / or policy
- Business Ethic Policy
- *Ontario companies, please provide: WISR, CAD7, and WISB Clearance Certificate
- *British Columbia companies, please provide: Worksafe BC Clearance Letter, WSBC Employer's Report, and Evidence of notices issued by WSBC & company response for the past 3 years

Create an Account

There are two ways a company can create a user account:

- By visiting www.turnerconstruction.com and completing the "Subcontractor Application Form" process; or
- By the link in a hiring client's email invitation to complete the "Subcontractor Registration Form" process.

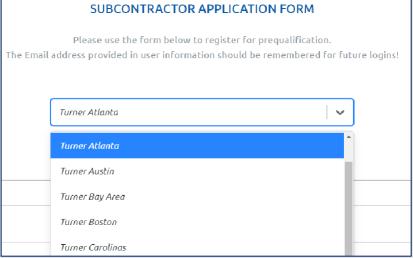
These methods have minor differences, but both follow the same processing guidelines. See below for additional information.

The "Subcontractor Application Form"

1. Go to turnerconstruction.com and click Become a Subcontractor.



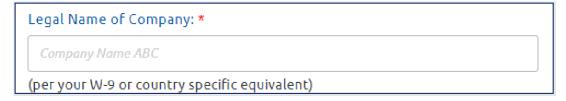
- 2. Scroll to the bottom of the page, and click "New Users Register with Vertikal."
 - Email Help Desk
 New Users Register with Vertikal
 Returning User Login
 Subcontractor Navigation Guide
 Subcontractor Quick Start Guide
- 3. Select the primary hiring client (Business Unit) to submit the Onboarding form and documents to review.



4. Begin entering your user-specific information. This user will have access to the Onboarding form with this hiring client. If your title does not exist, select a title in the same job family.

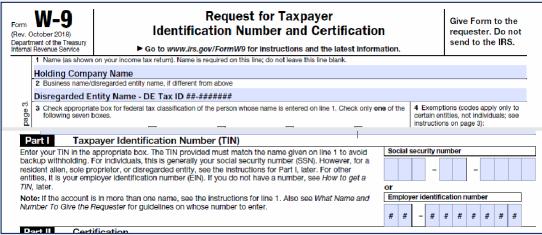


5. Enter your company's legal name as it appears on your W-9 or country-specific tax equivalent form. Refer to the information on page 2 for detailed instructions.

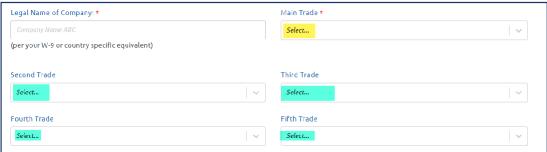


Note: For a disregarded entity company,

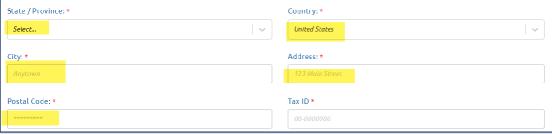
- o Register with the disregarded entity name and tax identification number.
- One main disregarded entity branch office can register as the "headquarters office."
- o Upload a W9 or country-specific tax equivalent form with the following:
 - The holding company's legal name on line 1 with their tax identification number listed on PartI;
 and
 - The disregarded entity's name, without reference to a "dba," on line 2 with their taxidentification number. See the example below.



6. For the **Main Trade**, please select the most general description of your company's trade and up to four additional trades from the predefined list.



7. Enter your company's <u>headquarters</u> address, <u>not</u> a branch office. For international companies, *FIRST* change the Country before entering the State/Province.





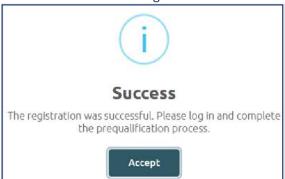
9. Please review Vertikal's user agreement, check the "I agree to the User Agreement" box, and click Submit to proceed.



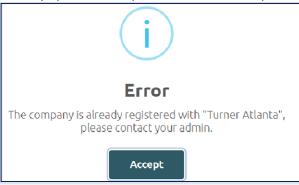
The "Subcontractor Registration Form"

Use the registration link in the email you received to access Turner's third-party Onboarding platform. Follow the guidelines outlined in the **Subcontractor Application Form** instructions. Because the hiring client sent you an invitation, item No 2 from the above does not apply.

With the successful registration, you will see the pop-up below. Click **Accept**, and you'll be redirected to your company's Subcontractor Onboarding Account.



If registration is unsuccessful, the pop-up below will appear; email servicedesk@tcco.com with a copy of your W9 or country-specific tax equivalent form and request additional assistance.



Subcontractor Onboarding Account

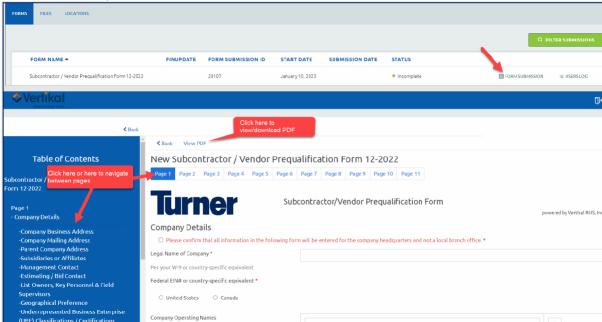
After completing the registration process successfully, you will be redirected to your company's Onboarding account. If your company already utilizes Vertikal's Onboarding platform with another general contractor ("Hiring Client"), click the arrow next to the Hiring Client to toggle and select the desired Turner/ SourceBlue hiring client to complete and submit Turner's specific-Onboarding form.



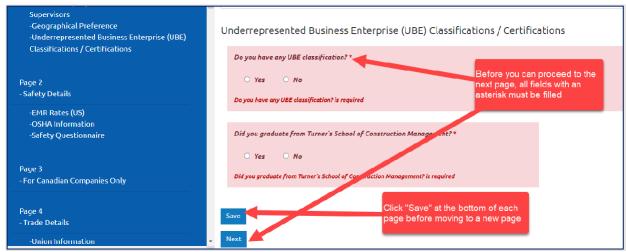
Complete the Onboarding Form

The system auto-saves your entries every two minutes. However, a best practice is to click **Save** at the end of each page before proceeding further.

- 1. Click the Form Submission button of the most recent form with the status "Incomplete."
- 2. Start entering data into the form.
- 3. At the bottom of the page, click **Save** and **Next**.
- 4. Click **View PDF** if you want to download a PDF version of the form.



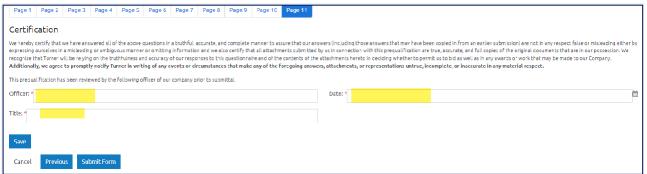
5. When clicking the **Next** button, the page will freeze if a required field is missed, or a document is not uploaded. Scroll up to review the missed required field or document to resolve and proceed to the next page.



6. To upload a file, you can drag and drop files or click the **Browse** button to select a file. The max file size is 30 MB.

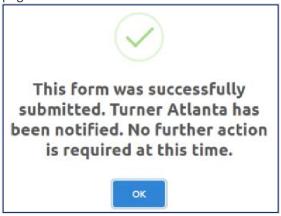


7. After completing all the required fields and uploading documents where indicated, complete the **Certification** section and click **Submit Form**.



Once submitted, the form and uploaded files are locked from further edits or deletions. If additional modifications are needed, the hiring client(s) can unlock the form for you to edit and resubmit.

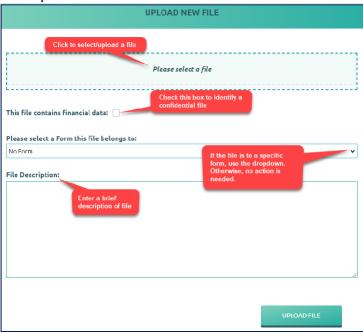
8. If the submission is successful, the below message will show. Click **OK** to exit the form and get back to the home page.



Upload / Download Files

After submitting a form, you can upload additional files if needed.

- 1. Go to the Files tab.
- 2. Click the **Upload File** button.
- 3. Select the new file for upload.
- 4. Check the box if this is a financial file (Financial Statement) to restrict viewing to limited users in the Vertikal system.
- 5. If the file belongs to a specific Onboarding Form, select the form in the drop-down.
- 6. Add a brief file description, such as the file name.
- 7. Click **Upload File**.



To view or download files, use the following steps below:

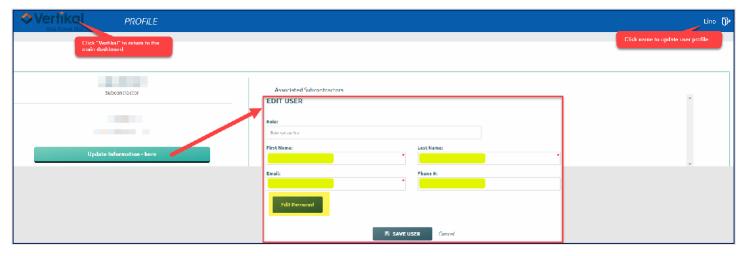
- 1. If you want to open one individually file, click View.
- 2. If you want to download multiple files at once, mark the files you wish to download and then click **Download**.



Change Your User Information

To change your user information, first, log into Vertikal. Click your name in the top right corner of the screen. And click the **Update Information – here** button.

To update your password, click **Edit Password**. Click **Save User** to save your changes and exit the window. To return to the Main Page, click the Vertikal logo at the top left of the screen.



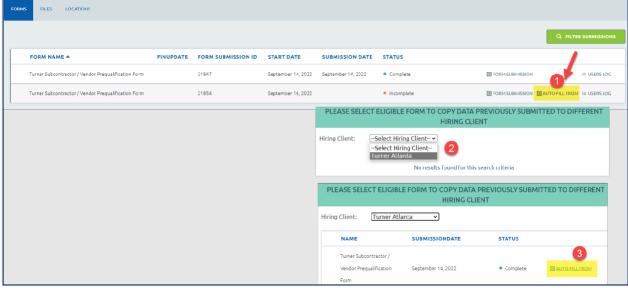
Onboarding Form Renewal – Auto-Fill From Option

The <u>completed</u> Onboarding form itself is valid for 24 months. In the "Forms" tab, if you only have a form with "Complete" status, NO action is needed on the prequal form.

At the time of renewal, a system-generated email will be sent to all applicants' company staff with a user account. Click on the URL link in the renewal email to access the login page to begin the renewal process.

The **Auto-Fill Form** option will show automatically if the renewal is eligible to autofill specific fields in the new form. If the auto-fill option is unavailable, complete the form from the beginning.

- 1. Click Auto-Fill Form.
- 2. Select the **Turner** Hiring Client's Onboarding form from which you want to copy data.
- 3. Click **Auto-Fill From** on the current **Complete** form.



4. Click **Yes** to confirm you want to copy data from the selected source form.



5. Click **Fill Out Form** for the system to take you to the new form with eligible pre-filled data fields populated. Please review all auto-populated data to ensure no changes need to be made, complete any cleared field with updated information, and upload new files where applicable before submitting the renewal form for review.

Note: The fields may take a few seconds to load with the copied data.



CRITICAL: If you are not ready to complete the renewal form, the company name and tax id must be entered at the bare minimum, and click the SAVE button. Failure to enter/save new information clears the auto-filled fields. If the auto-filled areas cleared when you log back in, you can either perform the auto-fill form process again or complete the prequal from scratch.

Yearly Documentation Renewal

Information such as your company's financial statements, EMR, UBE certifications, etc., may require yearly renewal. At the time of renewal for these specific documents, an automated email from Vertikal will be sent as a reminder to all user accounts associated with your company with instructions to upload the renewal documents. Follow the instructions in the email to upload the updated file(s) to support renewal.

The hiring client will email your company for other files, such as OSHA logs if needed.

*** END ***

<u>University of Kentucky</u> Agriculture Research Facility 1 Schematic Design Greenhouse Requirements

Greenhouse Architectural

The program calls for new rooftop & ground-level teaching greenhouse space with total area as described in attachments at the end of narrative. In addition to the space under glass a headhouse is also planned. Additional spaces for restroom, electrical closets, mechanical space and service elevator will also be apart of the headhouse. Refer to greenhouse layout at the end of this greenhouse narrative.

The glasshouse and the headhouses are both on the roof, at the 5th level of the building. A circulation space with parapet is provided around the glasshouse for maintenance, designed to accommodate the operation of a lift for glass and other maintenance around the greenhouse. The BSL-2 greenhouse structures will be either galvanized steel or aluminum, based on commercial structures, glazed with a single pane of glass.

Codes & Standards

In addition to the Codes, Standards and Regulations listed elsewhere in this report, the following will apply to the greenhouse aspects of the project:

For all Greenhouses:

- American National Standards Institute
 - o ANSI A117.1 Accessible and Usable Buildings and Facilities
 - o ANSI Z535.1 Safety Color Code
- National Fire Protection Association: Various standards
- Uniform Federal Accessibility Standards
- NGMA National Greenhouse Manufacturers Association, Design Loads Standards
- ASAE American Society of Agricultural Engineers, 2005, Standards applicable to greenhouses.
- ASHRAF
- Guidelines for Measuring and Reporting Environmental Parameters for Experiments in Plant Tissue Culture Facilities, International Committee for Controlled Environment Guidelines, NCERA-101, March 2016

ADA COMPLIANCE

The greenhouses will be designed to allow compliance with the ADA Standards for Accessible Design 928 CFR Part 36. The floor area in each greenhouse compartment will meet wheelchair circulation requirements by removing benches as necessary to create a walkway of over 5 ft to provide minimal turning radius. When not needed for public or staff handicapped personnel, the greenhouse bench(es) can be reinstalled.

Functional Statement about the new Greenhouses

The project calls for the construction of greenhouse/headhouse space on the roof (Level 5) of the future Agriculture Research Facility 1 facility. All new greenhouse zones shall be used on a continuous basis and will be used year-round.

The primary greenhouse user groups have been identified as follows:

- Department of Horticulture Science
- Department of Plant Pathology
- Department of Plant & Soil Science
- Department of Entomology

Kentucky Tobacco Research & Development

New BSL-2 greenhouse space is divided into 21 zones of 3 different sizes of 800sf, 700sf and 515sf in addition to the glasshouse and plus a staging area and circulation corridor. Greenhouse ridges and gutters are oriented east-west.

It is anticipated that each greenhouse section will be capable of independently maintaining different temperatures, relative humidity and light levels to the extent of the HVAC systems capacity chosen for the greenhouses. Structure, glazing, doors, ducting and cabinets are arranged and detailed so that infiltration into any given BSL-2 compartments is specified with airtightness below 0.5 natural air exchange per hour. The greenhouse project is followed and reviewed by APHIS officers, in order to obtain APHIS certification of the greenhouse and entire facility when the project is done.

Greenhouse Floors

The greenhouse floors must allow easy maintenance and provide a non-slippery surface. The final floor elevation for greenhouse and headhouse are identical to facilitate circulation. There are no gap, sill or other obstacles creating problems with rolling carts.

Floor characteristics are as follows:

- Since the greenhouse is on the roof and has multiple floors below, the structural slab shall include special measures to ensure watertightness.
- The floors are composite type with structural slab, waterproofing, conduit space and finish wearing slab with coved edges.
- The floor carrying capacity is at minimum 150 PSF (ASCE 7-05, Table C4-1).
- A 1/8 inch per foot slope is established on the floor toward the floor drains to ensure positive drainage without water accumulation.
- The concrete floor in each greenhouse is sealed and left unpainted with light broom finish.
- Refer to plumbing section for information on floor drains. (Under development)

Stem Walls (knee walls)

All exterior and interior walls of the greenhouse blocks are provided with a concrete stem wall. Height is 36 inches above finished floor elevation. Depth is as determined by the load calculations, 12 inches is assumed for this report. The finish is smooth without holes or honeycombing. Stem walls are used to run surface mounted irrigation pipes, air cabinets as well as to embed electrical conduits. The interior side of the stem walls in each compartment is sealed. The exterior side will be sealed and painted concrete as selected by the Architect. A flashing is added on top of the stem walls, interior and exterior. This flashing is sloped so that water reaching the walls runs off on the floor or grade. The flashing is sealed against the wall inside and outside with exterior grade silicone sealant.

Greenhouse Structure

The structure should be specified to withstand all applicable gravity and lateral loads. Greenhouse shape is a 11 ft Venlo type structural system on 10 ft increments (posts spacing), based on structures available on the market. The intent is to leave potential bidders the choice of proposing their own proprietary aluminum or galvanized steel structure and adapt it to the project requirements as detailed on drawings. This ensures competitive bidding and minimal modifications to standard greenhouse structures. Materials are aluminum or galvanized steel sections. Galvanization standards are specified to ensure 25 years long of corrosion-free service and steel is based on ASTM A-36/A latest edition. If aluminum is chosen, it will be mill finish and based on ASTM B-221, alloys 6061-T6 and 6063-T6.

The complex is anticipated to have 11 ft wide module Venlo greenhouse with ridges running in the east-west direction. The interior clearance height is 14 ft clear below the energy trusses for all greenhouses. Refer to room drawings for general layout. The project will define specific and precise criteria for the greenhouse structure but will allow manufacturers to bid their own proprietary system provided it matches the criteria set for the project. Design will show if additional structural elements are required to allow for special systems such as a removable trellis allowing the run of cables to support plants. A full size rolling ladder system is to be provided. The system allows workers to do maintenance work on the roof without touching glass. The system consists of a series of movable ladders accessed and parked on the central corridor roof.

Greenhouse Glazing

Glazing material for the greenhouse roof is laminated tempered (safety) glass of minimum 9/16 in thickness or as required to meet the loads prescribed by applicable codes and to withstand hailstorms with limited or without damage. Refer to structural analysis of this program for detailed applicable loads. For BSL-2, IGUs are held by extrusions. All extrusions to hold glass in place are made of aluminum. Butt joints are specified instead of lapped joints to ensure a more airtight greenhouse enclosure. Glass pane size is no smaller than 30×30 in and no larger than the optimum size for handling in a safe manner. Laminated roof glass shall consist of two layers of $\frac{1}{2}$ in tempered glass with a 0.030 in PVB interlayer. Wall glass is tempered throughout, for both exterior and interior partition walls, minimum thickness of $\frac{9}{16}$ in or as required to meet the loads prescribed by applicable codes. Typical data for laminated glass is as follows:

• Glass Characteristics (basis of design: Viracon, 9/16 in, Starphire)

• Visible light transmittance: 91%

Solar Energy: 79%

• U Value (winter/summer): 0,95 / 0,86 BTU/h-°F-SF

Shading Coefficient: 0.96

• Solar Heat Gain Coefficient: 0.83

Doors

Standard aluminum doors and frames are required with integrated non-opening windows. Doors are sealed to the greenhouse structure. The doors and frames are equipped with heavy-duty commercial type locks and hardware with embedded hinges. All doors have automatic closers, doorstops, are self-locking with deadbolts, have hold-open position and 36 inches high kick plates on the corridor side. All doors are equipped with state of the art weatherstrips on the full perimeter. Greenhouse interior doors open towards the corridor/fire exits. Compartment doors are close to the partition wall, about 1 ft from the edge of the concrete wall. Exterior doors open toward outside. Doors are typically 42 inches wide for single doors, 72 inches (double-leaf) wide for double-doors and 7 ft high. Exterior doors are protected by an over-hang or canopy.

Circulation Spaces

Glazed circulation space is needed to access all independent compartments, in the shape of a 10 ft wide double-loaded central corridor. This corridor ties the greenhouse to the headhouse. All circulation spaces shall be equipped with floor drains similar to those provided inside the greenhouse compartments.

CLIMATE CONTROL EQUIPMENT

The basic function of a greenhouse is to allow natural sunlight to reach the plant inside while maintaining the interior greenhouse environment. The term "environment" refers to:

- Air quality (presence of dust or undesirable pollutants)
- Temperature,
- Air moisture content (relative humidity)
- Natural and supplemental light levels.

Each greenhouse compartment has the ability to set climatic conditions independently from the others. Independent phytosanitary treatment can be carried out with minimal effects on adjacent compartment. The design criteria presented below summarizes the conditions desired in the various zones.

Design Criteria

The design criteria presented below summarize the conditions desired in the various zones.

Summer Design Dry Bulb (0.4%): 94.1 °F

Coincident Wet Bulb: 75.9 °F

Winter Design Dry Bulb (99,6%): 18.8 °F

Ventilation/HVAC Systems

HVAC shall be obtained through the use of independent air handling units (AHU). There will be 1 individual AHU per zone and one (1) for each central corridor. All AHUs are located in the mechanical floor under the greenhouses. The constant air supply to each zone is brought to an air distribution cabinet located in the greenhouse on the exterior wall side. After its passage through the greenhouse zone, the air is picked at the corridor wall and goes back to the AHU. Each greenhouse compartment has a constant airflow supplied to a cabinet fitted with diffusers located on the floor, on the exterior wall side. The diffusers will throw cool air directly upward (75%) and horizontally below the benches (25%). Air will travel through the greenhouse zone to the corridor wall on the opposite side where return grilles will pick it up about 8 ft above the slab and door to return the air to the AHU in the mechanical floor below. Air movement in the house will limit velocities to less than 100 feet per minute. The return duct is located in the central corridor.

Air Conditioning Systems

The shading system within each zone will part of the cooling strategy, entirely adjustable by users through the specialized greenhouse control system. However, the overall cooling capacity will be designed without considering the shading systems. The shading systems close fully at night to save on the energy expenditures. The greenhouse central corridor is air-conditioned. A dedicated AHU is provided for the corridor. Supply air is released on the south side and picked up at the other end close to the main building. The AHU is also located in the mechanical floor below the greenhouse. The AHU uses building hot water for heating and building chilled water for cooling.

Temperature Control Strategies

The climate sustaining system is controlled by the specialized greenhouse computer control system. The integrated inputs are the compartment temperature, humidity, the outside ambient temperature, humidity, light levels, trend of temperature, presences of wind and rain. The system will allow users to set the ventilation equipment sequence and modify it at will. Sequences below can be modified at all time by users: the strategy below is a starting point for the purpose of greenhouse commissioning.

- a) On normal operation, the air handler operates continuously.
- b) On cooling demand, the computer will start the chilled water pump and modulate the AHU chilled water control valve to maintain temperature at set-point.
- c) With temperature still rising, the shading system shall close.
- d) With temperature still rising and the shading system closed, the fog system will start and pulsate in the compartment.

- e) On heating demand, the computer will start the heat pump and modulate the 3-way control valve to maintain temperature at set-point.
- f) With cooling or heating load at 10% or less, the HAF fans will start and AHU fan reduces its speed.
- g) The AHU shall be user set to exhaust greenhouse air, adjustable between 2% and 10% of the AHU's capacity.
- h) Central Corridor
 - a. On temperature rising, the ridge and side vents shall close, the computer will start the chilled water pump and modulate the AHU chilled water control valve to maintain temperature at set-point.
 - b. On temperature decrease, the heating pump will start and the 3-way valve will be activated to respond to the demand by varying water temperature of the heating coil.

Piped Services

Maximum water flow rates for the greenhouses is based on a diversity factor of 20%, that is one (1) every five (5) watering outlets being used simultaneously for each system. All water services to the greenhouse are protected against backflow. Since the operation of the greenhouse involves the use of several types of chemical products and fertilizers injected in the irrigation water, steps must be taken to ensure no backflow of chemicals penetrates the potable water sources. The project uses several separate water sources at the greenhouse:

- A domestic service (DCW, DHW) used for drinking water and other potable services such as emergency showers, restrooms, etc.
- Industrial or process water made from domestic source but protected per Code by a series of backflow preventers to ensure no chemical used in the headhouse/greenhouse can back flow into the potable water service.
- Reverse osmosis water (ROW) service for the fogging system and irrigation.

Several different plumbing service distribution networks are required at the new greenhouse complex. Out of the general services listed above, the greenhouse needs the following:

- Separate fire water service
- Domestic water service from potable source, cold (DCW) and hot (DHW) (with return)
- Industrial cold water service (ICW)
- Industrial tempered water service (ITW), (75°F year-round) (ITW) sourced from ICW
- Reverse Osmosis water (RO) service sourced from ICW
- Fog piping (FOG) service is needed throughout the greenhouses, from RO source

There will be one (1) hose station in each research greenhouse compartment. Each hose station shall have the following services:

- cold water service (CW) for cleaning and general purposes
- Industrial tempered water (ITW) for irrigation
- RO water service for irrigation
- Quick connect outlets for quick connection of portable fertilizer injector.
- Fog zone valve and distribution
- Compressed air hose bib.

In addition, the following plumbing services to be found in each greenhouse compartment:

- One automatic irrigation valve per bench (on greenhouse control system), at end of bench opposite to the door. All valves fed from hose station, from RO or ITW, as selected by users
- One automatic solenoid valve controlled by computer to start/stop the application of pesticides through the compressed air system and a venturi applicator.

Manual outlets end with brass quick couplings and are fitted with appropriate quarter-turn on-off valve. Water hoses are not provided by the project. RO outlets shall be stainless steel. All piped services outlets shall be installed approximately 4 ft high, about 12-18 inches above the bench surface. An air compressor is provided in the mechanical room. This compressor serves all greenhouses and the headhouse. Air is de-oiled and filtered. Air is used to clean insect screens and for other specialized uses such as bubbling in water tanks. The headhouse work area will have several clusters of hose bibs with above described services in addition to water services at sinks. In addition, the project will require deep and large sinks, large drains, bleaching tank, etc..

Sanitary and Storm Drainage

Each corridor and greenhouse compartment floor has floor drains complete with soil/sediment trap/bucket. Drains are standard bronze. There are drains in the corridor, two per growing compartment drainage from greenhouse floors, benches, sinks and other water using devices is directed to the general drainage system of the building. Design will explore the need for sand traps to be located inside selected compartments or in the central corridor. Gutters are drained through downspouts located outside the greenhouse at the end of each gutter. Gutters are half-capped at both ends.

Fire Protection

The entire greenhouse is fitted with a fire protection system covering all areas. The system is two-tier: one series of sprinklers above the horizontal shading system and the other below the shading system. Any fire protection piping installed in the greenhouses shall be galvanized steel. Sprinklers shall all be of the high temperature head type.

Benches

The benches are heavy-duty commercial type greenhouse benches in a combination of stationary and rolling units. All bench components are aluminum and tubes are capped at both ends. Benches are nominally 30 inches high and have an expanded metal top surface. Design load is 40 PSF. Plastic trays are installed on top with all required plumbing connections. Bench corners are rounded and liners provided to make sure clothing does not catch on the bench sides. Benches are not anchored to the greenhouse floor slab. This way, they can be removed completely as needed.

The design intent is to provide as much bench space as possible within the greenhouse compartments while allowing any greenhouse compartment to become fully ADA compliant with 5-ft turning radius simply by moving out a bench to provide areas for wheelchair requirements. The greenhouses are laid out with a central door main free walkway of 36 inches at the entrance (with hose station at one end) and secondary walkways between benches ranging from 24 in to 33 in.

Irrigation Systems

Automatic irrigation valves are provided in each compartment. The piping feeding them includes a pressure-reducing valve to even irrigation pressure under all watering conditions, bringing water to solenoid valves on the outside wall. Users have a choice of feeding the irrigation solenoid valves with either tempered water (ITW) or RO water (RO) by opening and closing appropriate valves at the hose station. Users can also quick connect a fertilizer injector into the preferred water service (ITW or RO).

Users will install the material in their compartment should they require it. All irrigation functions will be under computer control.

Shading/Energy Systems

Horizontal motorized shading system

Each individual greenhouse compartment is equipped with motorized horizontal energy/shade curtains. The curtain is used for temperature and light level control during periods of high solar gain and for energy savings at night. The curtain material is providing 50% shading factor. The material will be non-porous can be entirely closed at night to promote energy savings. Curtains are controlled automatically. Shading system are integrated in the cooling strategy. The curtain system is installed horizontally above the truss bottom chord elevation and moves from truss to truss. In both cases, the material will reach as close as possible to the glass on the sidewalls.

Vertical motorized shading system

Vertical motorized shading systems with 70% to 100% shading factor are planned for south exposed walls to control solar gain in hot summer days. The rolling curtains are installed close to the wall and roll up and down based on light, required cooling and energy savings. In addition, all compartments have light spill control in the form of a rolling curtain wall on the partition between zones.

Blackout System

3 greenhouse compartments shall be fitted with a complete blackout system for photoperiod control, this quantity will be verify with the users during the Design Development Phase.

Greenhouse Electrical

Main distribution panel includes power for both wings of the greenhouse. Electrical service will come from a dedicated electrical room located on the mechanical floor below greenhouse. Power distribution will be at 277/480 volts and at 120/208 volts.

Panels are located outside of greenhouses compartments, in Corridor. All electrical apparatus in greenhouse compartments and greenhouse corridor is weather proof NEMA 4, IP65 or IP55. All greenhouse motor starters are grouped in custom made enclosures, located in the electrical room of the mechanical floor below greenhouses. Branch circuits are sized so as not to exceed a 3% voltage drop to the panel. This allows an additional 2% voltage drop to occur in the distribution system and still comply with the National Electrical Code Requirement of 5% maximum voltage drop.

Lighting

Supplemental Lighting for plants

Supplemental lighting is required in all greenhouse compartments in the form of 800 watts LED fixtures with red, white and blue sources and wavelength control through computer. The target intensity shall be 200 micromoles per second per square meter. Lighting intensity is verified on the floor from fixtures located 4 ft above the lighting plane. Fixtures are installed on a counterweight-operated canopy that can be manually lowered from high point about 14 ft elevation down to bench level. Lighting to be uniformly distributed over the whole greenhouse surface using a number of programmable LED fixtures allowing variable spectrum based on crop requirements. Each 277 V fixture is connected via SOW cable and a twist-lock plug, with one control point per compartment. All supplemental lighting is controlled via motorized breakers by the specialized computer system. Required power shall be divided in several circuits and controlled on a compartment.

Other Lighting

Emergency sentinel lighting on manual switches are provided for each greenhouse compartment, on standby power by compact fluorescent vapor proof fixtures. Task lighting is provided in the

greenhouse corridors above counter spaces (if any). Emergency lighting is provided as required by the NFPA; including requirements detailed in the NEC, Life Safety Code and local Codes, and are supplied from standby panel boards. Emergency lights are provided for egress, including exit routes, exit stairways, exit passageways, large open areas.

Service Outlets

Standard outlets

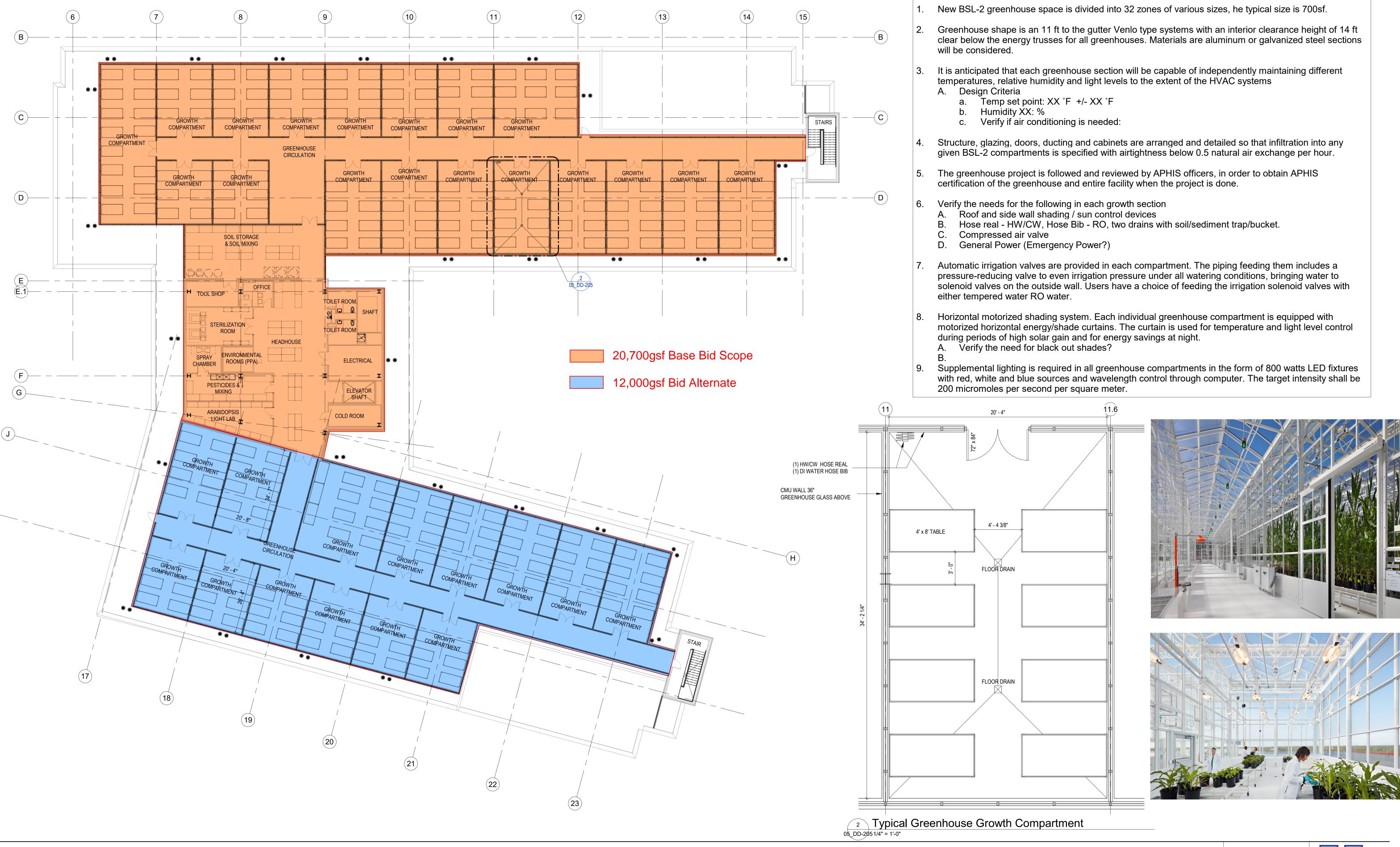
Standard power outlets are provided in each compartment and in the corridors. There are 2 standard 110 VAC outlets per compartment at approximately 4 ft elevation from the floor and located on the wall opposite side of door. Outlets are also provided in the central corridor at the rate of one outlet per 50 ft. Each power outlet is 110 V / 60 Hz, ground fault protected (GFI). There are also two (2) 208 V / 1 Ø split in the length of the corridor.

Alarms

Wireless access is provided throughout the greenhouse and headhouses. The temperature alarms detected by the control system are routed to an auto-dialer part of this system to contact greenhouse personnel. Critical Alarms are also routed to the BAS system. In addition, all alarms go to the greenhouse manager's office.

GREENHOUSE TABS & COMMISSIONING

The greenhouse shall be tested and balanced (TAB) at the end of construction. Air systems, hot water systems, chilled water systems and irrigation systems will be balanced. All systems will be tested. The final contract drawings and specifications will include requirements for a complete testing and balancing subcontract. The testing and balancing sub-contractor will be independent of the mechanical contractor who installs the equipment to be tested and balanced.

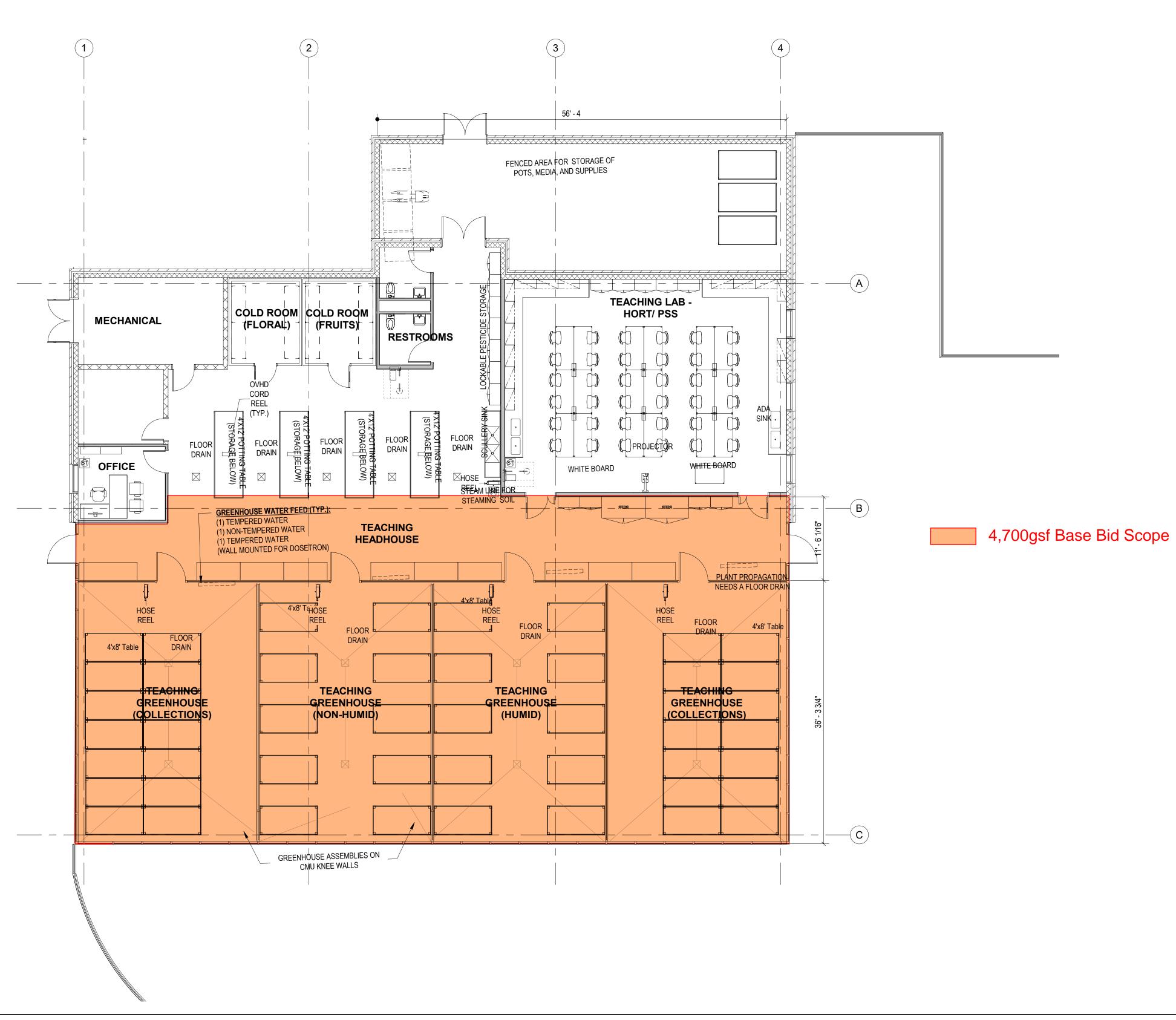


Greenhouse Metrics

As indicated



LABORATORY EQUIP SCHEDULE - OFOI - HORT												
				Equipme	ent Type	Location	Phsy	ical Prope	rties		Existing	
Equipment Number						(Bench or		Inches			Room	
(Quantitay if >1)	Department	Assigned Staff	Room: Name	Equipment Name	Manufacturer	Floor Mtd)	W	D	Н	Type Comments	Number	



Teaching Greenhouse
Program Space Name Horticulture Department Primary Users **Mechanical Requirements** Temperature Range F Humidity Range % RH Summer / Winter Uncontrolled Occupied Air Change Rate 6 Unoccupied Air Change Rate Negative 100% Outside Air, non-recirculating Pressurization +/- ~ General Notes GREENHOUSE ANTICIPATED TO BE FAN AND PAD GEVAPORATIVE COOLING

208V Receptacle Quantity							
No	•						
Yes							
nents							
Worksurface Foot Candles			Туре		Direct/Indirect Pendant		
ON / OFF Control			Occupancy Sensor with override				
xtures w	ith red,	white, a	nd blue sources	and wa	avelength control		
	Yes nents Candles	Yes nents Candles	Yes nents Candles 70 Occup	Yes nents Candles 70 Type Occupancy Sensor with	Yes nents Candles 70 Type		

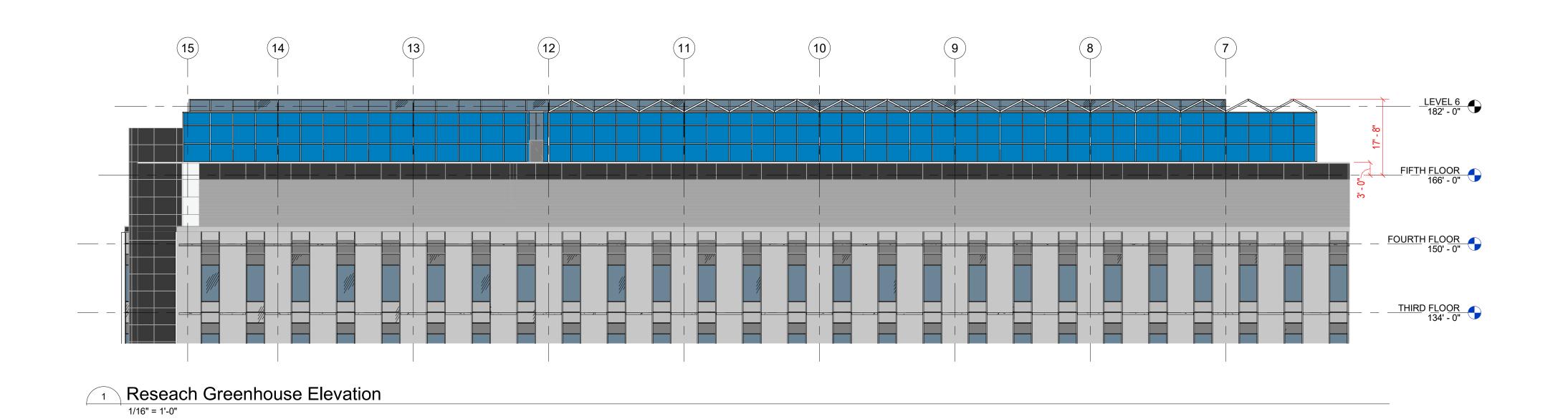
Wall Const / Finish		MU, Epoxy Paint	Floor Finish	Polished Con		
Base Finish		ubber Base	Ceiling Height / Finish	10'-0" / Acous		
Door / Frame		M / HM	Casework / Tops	Metal / Epoxy		
Security			Daylight Control	None		
Fire Rating	•	NA				
Hazardous Materials		NA				
General Notes						

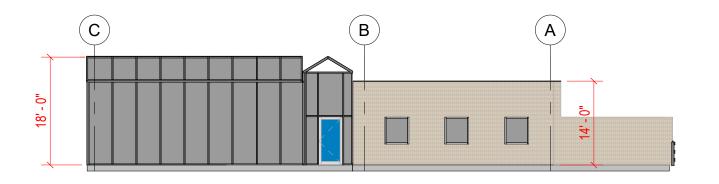
otable Water - Sink Type 1	Х	Cold:	X	Hot:	Х
···		RO:		RODI:	
otable Water - Sink Type 2		Cold:		Hot:	
	'	RO:		RODI:	
ose Bib	NA	Cold:		Hot:	
vewash Type	·			•	'
afety Shower Type	Eyewash / Saftey Shower Combination				
aste Systems					
initary Drain:		Floor Drain:			Х
entral Gas / Vacuum Systems	3				
acuum:	Natural Gas:				
ompressed Air:		CO2:			
eneral Notes	•	•			•

Horticulture - Teaching Greenhouse

00_DD-103







Teaching Greenhouse Elevation

1/16" = 1'-0"

