William Penn High School Athletic Fields Athletic Field Improvement and Buildings

713 E Basin Rd
New Castle, DE 19720

Bid Package B

Project Manual Volume 1 of 3

ARCHITECT
Becker Morgan Group
309 South Governors Avenue
Dover, Delaware 19904

EDiS Company, Inc.
110 S. Poplar Street
Suite 400
Wilmington, DE 19801

Issued for Bid

October 16th, 2026

SECTION 000107
PROFESSIONAL SEALS PAGE

1.01 DESIGN PROFESSIONALS OF RECORD:

A. Structural Engineer:

SEAL

1. Baker Ingram & Associates
2. Cherie J. Moore, P.E.; License No. 14912
3. Expiration Date: 06/30/2028
4. Responsible for Divisions 03 - 06 Sections except where indicated as prepared by other design professionals of record

B. Architect:

SEAL

1. Becker Morgan Group, Inc.
2. Brad A. Hastings, AIA, LEED AP; License No. 0005276
3. Expiration Date: 01/31/2028
4. Responsible for Divisions 02 - 14 Sections except where indicated as prepared by other design professionals of record.

C. Mechanical Engineer:

SEAL

1. Gipe Associates
2. Dave Robert Hoffman, P.E.; License No. 9773
3. Expiration Date: 06/30/2028
4. Responsible for Divisions 21 - 25 Sections except where indicated as prepared by other design professionals of record.

D. Electrical Engineer:

SEAL

1. Gipe Associates
2. Dine Marie Dixon, P.E.; License No. 17123
3. Expiration Date: 06/30/2028
4. Responsible for Divisions 26 - 28 Sections except where indicated as prepared by other design professionals of record.

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SECTION 001113 - ADVERTISEMENT FOR BID

Receipt of Bids

Public notice is hereby given that sealed bids for the following prime contracts will be received for the construction and renovations of the William Penn High School located in New Castle, Delaware**. Bids will be received at William Penn High School, N3 Building, 701 E. Basin Rd, New Castle, Delaware 19720 until 2:30 PM on Tuesday, November 12, 2026,** at which time they will be publicly opened and read aloud. ***Bidder bears the risk of late delivery. Any bids received after the stated time will be returned unopened.*** The time and location of the bid opening may be extended with a minimum of two calendar day notice to the Bidders.

Contract B-01: Concrete and Reinforcing
Contract B-02: Structural Steel and Miscellaneous Metals
Contract B-03: Unit Masonry
Contract B-04: General Trades
Contract B-05: Metal and EPDM Roofing
Contract B-06: Soft Flooring
Contract B-07: Fluid-Applied Flooring
Contract B-08: Painting
Contract B-09: Bleachers and Grandstands
Contract B-10: Fire Protection
Contract B-11: Plumbing, HVAC and Controls
Contract B-12: Electrical, Lighting, Fire Alarms, Stadium Lighting
Contract B-13: Special Systems
Contract B-14: Testing, Adjusting and Balancing
Contract B-15: General Labor & Cleanup

Bidding Documents

1. It is the responsibility of each bidder to review and coordinate all Project Documents. This includes plans, specifications, and addendums.
2. Non-biddable documents, for review only, may be examined on the State of Delaware Online Bid Solicitation Directory, http://bids.delaware.gov, or at the office of the Construction Manager, EDIS Company, 110 S. Poplar Street, Suite 400, Wilmington, Delaware 19801; on or after the date of the pre-bid meeting.
3. Bid documents will be available on the EDiS FTP site. In order to obtain access to biddable documents on the EDiS FTP site or via email to Jessica dePolo at jdepolo@ediscompany.com. Your request should include the following information: your company name, contact name, contracts you are bidding, email address, and phone number.

Bid Security

A bid security in the amount of 10% of the bid, plus a consent of surety must accompany each bid. Bid Security shall specify the Owner as the obligee. Owner: Colonial School District.

Pre-Bid Meeting

A pre-bid meeting will be held at William Penn High School, N-3 Building 701 E. Basin Rd, New Castle, Delaware 19720 on October 22, 2026 at 2:00 PM local time. Attendance is highly suggested but not mandatory.

Questions

Please contact EDiS Company, Warren Ellis at wellis@ediscompany.com with questions.

Conformance to the Delaware Architectural Accessibility Act and the standards of the Architectural Accessibility Board is required on the Project.

Prevailing Wage Rates

Prevailing Wage Rates, as directed by Delaware Law, must be adhered to where applicable.

Pursuant to the Office of Management and Budget (OMB) "4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects" required that Contractors and Subcontractors who work on Large Public Works Contracts funded all or in part with public funds implement a Mandatory Drug Testing Program. The latest regulation can be downloaded from the following website:

http://regulations.delaware.gov/AdminCode/title19/4000/4100/4104.pdf

Drug Testing Requirements

Pursuant to the Office of Management and Budget (OMB) "4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects" required that Contractors and Subcontractors who work on Large Public Works Contracts funded all or in part with public funds implement a Mandatory Drug Testing Program. The latest regulation can be downloaded from the following website: http://regulations.delaware.gov/AdminCode/title19/4000/4100/4104.pdf

Craft Training for Public Works Procurement

In accordance with Delaware Code, Title 29, Chapter 69, Section 6962, requires: A public works contract must include a requirement that the contractor provide craft training for journeyman and apprentice levels if all of the following apply:

A. The project requires prevailing wages and,
B. The contractor or subcontractor employs 10 or more people and,
C. It is not a federal highway project, except for the Route 301 project.

The craft training may be provided by any of the following:

A. The contractor, or
B. The subcontractor, or
C. A program registered pursuant under Section 1101-4.0 of Title 19 of the Delaware Administrative Code.

Subsection 6902 defines "Craft Training" as "an apprenticeship program approved by and registered with any state apprenticeship agency or the United States Department of Labor. The Secretary of the Department of Labor shall maintain a list of crafts for which there are approved and registered training programs."

DELAWARE'S CONTRACTOR REGISTRATION ACT IS EFFECTIVE JULY 1, 2021
https://labor.delaware.gov/divisions/industrial-affairs/labor-law/contractor-registration-act/

END OF SECTION

SECTION 00 21 13

INSTRUCTIONS TO BIDDERS

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8. FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

ARTICLE 1: GENERAL

1.1 DEFINITIONS

1.1.1 Whenever the following terms are used, their intent and meaning shall be interpreted as follows:

1.2 STATE: The State of Delaware.

1.3 AGENCY: Contracting State Agency as noted on cover sheet.

1.4 DESIGNATED OFFICIAL: The agent authorized to act for the Agency.

1.5 BIDDING DOCUMENTS: Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Advertisement for Bid, Invitation to Bid, Instructions to Bidders, Supplementary Instructions to Bidders (if any), General Conditions, Supplementary General Conditions, General Requirements, Special Provisions (if any), the Bid Form (including the Non-collusion Statement), and other sample bidding and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, as well as the Drawings, Specifications (Project Manual) and all Addenda issued prior to execution of the Contract.

1.6 CONTRACT DOCUMENTS: The Contract Documents consist of the, Instructions to Bidders, Supplementary Instructions to Bidders (if any), General Conditions, Supplementary General Conditions, General Requirements, Special Provisions (if any), the form of agreement between the Owner and the Contractor, Drawings (if any), Specifications (Project Manual), and all addenda.

1.7 AGREEMENT: The form of the Agreement shall be AIA Document A101, Standard Form of Agreement between Owner and Contractor where the basis of payment is a STIPULATED SUM. In the case of conflict between the instructions contained therein and the General Requirements herein, these General Requirements shall prevail.

1.8 GENERAL REQUIREMENTS (or CONDITIONS): General Requirements (or conditions) are instructions pertaining to the Bidding Documents and to contracts in general. They contain, in summary, requirements of laws of the State; policies of the Agency and instructions to bidders.

1.9 SPECIAL PROVISIONS: Special Provisions are specific conditions or requirements peculiar to the bidding documents and to the contract under consideration and are supplemental to the General Requirements. Should the Special Provisions conflict with the General Requirements, the Special Provisions shall prevail.

1.10 ADDENDA: Written or graphic instruments issued by the Owner/Architect prior to the execution of the contract which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.

1.11 BIDDER OR VENDOR: A person or entity who formally submits a Bid for the material or Work contemplated, acting directly or through a duly authorized representative who meets the requirements set forth in the Bidding Documents.

1.12 SUB-BIDDER: A person or entity who submits a Bid to a Bidder for materials or labor, or both for a portion of the Work.

1.13 BID: A complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

1.14 BASE BID: The sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids (if any are required to be stated in the bid).

1.15 ALTERNATE BID (or ALTERNATE): An amount stated in the Bid, where applicable, to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents is accepted.

1.16 UNIT PRICE: An amount stated in the Bid, where applicable, as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the Bidding Documents.

1.17 SURETY: The corporate body which is bound with and for the Contract, or which is liable, and which engages to be responsible for the Contractor's payments of all debts pertaining to and for his acceptable performance of the Work for which he has contracted.

1.18 BIDDER'S DEPOSIT: The security designated in the Bid to be furnished by the Bidder as a guaranty of good faith to enter into a contract with the Agency if the Work to be performed or the material or equipment to be furnished is awarded to him.

1.19 CONTRACT: The written agreement covering the furnishing and delivery of material or work to be performed.

1.20 CONTRACTOR: Any individual, firm or corporation with whom a contract is made by the Agency.

1.21 SUBCONTRACTOR: An individual, partnership or corporation which has a direct contract with a contractor to furnish labor and materials at the job site, or to perform construction labor and furnish material in connection with such labor at the job site.

1.22 CONTRACT BOND: The approved form of security furnished by the contractor and his surety as a guaranty of good faith on the part of the contractor to execute the work in accordance with the terms of the contract.

1.23 CUSTOM FABRICATION: As defined in 29 Del. C. § 6902, the term “custom fabrication” means the offsite fabrication, assembly, or other production of non-standard goods or materials, including components, fixtures or parts thereof, specifically for a public works project. Such goods and materials shall include those used in the following trades or systems: (1) Plumbing or pipe fitting systems, including heating, ventilating, air-conditioning, refrigeration systems, sheet metal or other duct systems; (2) Electrical systems; (3) Mechanical insulation work; (4) Ornamental iron work; and (5) Commercial signage that does not attempt or appear to direct the movement of traffic on highways or roadways or interfere with, imitate, or resemble any official traffic sign, signal or device.

ARTICLE 2: BIDDER'S REPRESENTATION

2.1 PRE-BID MEETING

2.1.1 A pre-bid meeting for this project will be held at the time and place designated. Attendance at this meeting is a pre-requisite for submitting a Bid, unless this requirement is specifically waived elsewhere in the Bid Documents.

2.2 By submitting a Bid, the Bidder represents that:

2.2.1 The Bidder has read and understands the Bidding Documents and that the Bid is made in accordance therewith.

2.2.2 The Bidder has visited the site, become familiar with existing conditions under which the Work is to be performed, and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents.

2.2.3 The Bid is based upon the materials, equipment, and systems required by the Bidding Documents without exception.

2.2.4 Bidders are expected to submit bids that are firm, fixed and inclusive of all existing and potential tariffs at the time of bid. There shall be no change orders due to tariffs, or the uncertainty caused by them, that are in effect when the bid is submitted. If, after a project is awarded and PO issued a new tariff is enacted that impacts the cost of materials or equipment required for the work, a Change Order may be submitted and evaluated by the Owner, with proper justification. Proper justification will be in the form of documentary evidence proving a price increase specifically due to a new tariff, which post-dates: (1) the date the project is awarded; and (2) the date of the purchase order issued by the State.

2.3 JOINT VENTURE REQUIREMENTS

2.3.1 For Public Works Contracts, each Joint Venturer shall be qualified and capable to complete the Work with their own forces.

2.3.2 Included with the Bid submission, and as a requirement to bid, a copy of the executed Joint Venture Agreement shall be submitted and signed by all Joint Venturers involved.

2.3.3 All required Bid Bonds, Performance Bonds, Material and Labor Payment Bonds must be executed by both Joint Venturers and be placed in both of their names.

2.3.4 All required insurance certificates shall name both Joint Venturers.

2.3.5 Both Joint Venturers shall sign the Bid Form.

2.3.6 Both Joint Venturers shall include their Federal E.I. Number with the Bid.

2.3.7 In the event of a mandatory Pre-bid Meeting, each Joint Venturer shall have a representative in attendance.

2.3.8 Due to exceptional circumstances and for good cause shown, one or more of these provisions may be waived at the discretion of the State.

2.4 ASSIGNMENT OF ANTITRUST CLAIMS

2.4.1 As consideration for the award and execution by the Owner of this contract, the Contractor hereby grants, conveys, sells, assigns and transfers to the State of Delaware all of its right, title and interests in and to all known or unknown causes of action it presently has or may now or hereafter acquire under the antitrust laws of the United States and the State of

Delaware, relating to the particular goods or services purchased or acquired by the Owner pursuant to this contract.

ARTICLE 3: BIDDING DOCUMENTS

3.1 COPIES OF BID DOCUMENTS

3.1.1 Bidders may obtain complete sets of the Bidding Documents from the Architectural/Engineering firm designated in the Advertisement or Invitation to Bid in the number and for the deposit sum, if any, stated therein.

3.1.2 Bidders shall use complete sets of Bidding Documents for preparation of Bids. The issuing Agency nor the Architect assumes no responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

3.1.3 Any errors, inconsistencies or omissions discovered shall be reported to the Architect immediately.

3.1.4 The Agency and Architect may make copies of the Bidding Documents available on the above terms for the purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

3.2.1 The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall report any errors, inconsistencies, or ambiguities discovered to the Architect.

3.2.2 Bidders or Sub-bidders requiring clarification or interpretation of the Bidding Documents shall make a written request to the Architect at least seven days prior to the date for receipt of Bids. Interpretations, corrections and changes to the Bidding Documents will be made by written Addendum. Interpretations, corrections, or changes to the Bidding Documents made in any other manner shall not be binding.

3.2.3 The apparent silence of the specifications as to any detail, or the apparent omission from it of detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and only material and workmanship of the first quality are to be used. Proof of specification compliance will be the responsibility of the Bidder.

3.2.4 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all permits, labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Work.

3.2.5 The Owner will bear the costs for all impact and user fees associated with the project.

3.3 SUBSTITUTIONS

3.3.1 The materials, products and equipment described in the Bidding Documents establish a standard of quality, required function, dimension, and appearance to be met by any proposed substitution. The specification of a particular manufacturer or model number is not intended to be proprietary in any way. Substitutions of products for those named will be

considered, providing that the Vendor certifies that the function, quality, and performance characteristics of the material offered is equal or superior to that specified. It shall be the Bidder's responsibility to assure that the proposed substitution will not affect the intent of the design, and to make any installation modifications required to accommodate the substitution.

3.3.2 Requests for substitutions shall be made in writing to the Architect at least ten days prior to the date of the Bid Opening. Such requests shall include a complete description of the proposed substitution, drawings, performance and test data, explanation of required installation modifications due the substitution, and any other information necessary for an evaluation. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval shall be final. The Architect is to notify Owner prior to any approvals.

3.3.3 If the Architect approves a substitution prior to the receipt of Bids, such approval shall be set forth in an Addendum. Approvals made in any other manner shall not be binding.

3.3.4 The Architect shall have no obligation to consider any substitutions after the Contract award.

3.4 ADDENDA

3.4.1 Addenda will be mailed or delivered to all who are known by the Architect to have received a complete set of the Bidding Documents.

3.4.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

3.4.3 No Addenda will be issued later than 2 calendar days prior to the date for receipt of Bids except an Addendum withdrawing the request for Bids or one which extends the time or changes the location for the opening of bids.

3.4.4 Each bidder shall ascertain prior to submitting his Bid that they have received all Addenda issued, and shall acknowledge their receipt in their Bid in the appropriate space. Not acknowledging an issued Addenda could be grounds for determining a bid to be non-responsive.

ARTICLE 4: BIDDING PROCEDURES

4.1 PREPARATION OF BIDS

4.1.1 Submit the bids on the Bid Forms included with the Bidding Documents.

4.1.2 Submit the original Bid Form for each bid. Bid Forms may be removed from the project manual for this purpose.

4.1.3 Execute all blanks on the Bid Form.

4.1.4 Where so indicated by the makeup on the Bid Form, express sums in both words and figures, in case of discrepancy between the two, the written amount shall govern.

4.1.5 BID ALL REQUESTED ALTERNATES AND UNIT PRICES, IF ANY. If there is no change in the Base Bid for an Alternate, enter "No Change". The Contractor is responsible for

verifying that they have received all addenda issued during the bidding period. Work required by Addenda shall automatically become part of the Contract.

4.1.6 Make no additional stipulations on the Bid Form and do not qualify the Bid in any other manner.

4.1.7 Each copy of the Bid shall include the legal name of the Bidder and a statement whether the Bidder is a sole proprietor, a partnership, a corporation, or any legal entity, and each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current Power of Attorney attached, certifying agent's authority to bind the Bidder.

4.1.8 Bidder shall complete the Non-Collusion Statement form included with the Bid Forms and include it with their Bid.

4.1.9 In the construction of all Public Works projects for the State of Delaware or any agency thereof, preference in employment of laborers, workers or mechanics shall be given to bona fide legal citizens of the State who have established citizenship by residence of at least 90 days in the State.

4.1.10 Each bidder shall include a signed Affidavit for the Bidder certifying compliance with OMB Regulation 4104 - “Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on “Large Public Works Projects.” “Large Public Works” is based upon the current threshold required for bidding Public Works as set by the Purchasing and Contracting Advisory Council.

4.2 BID SECURITY

4.2.1 All bids shall be accompanied by a deposit of either a good and sufficient bond to the agency for the benefit of the agency, with corporate surety authorized to do business in this State, the form of the bond and the surety to be approved by the agency, or a security of the bidder assigned to the agency, for a sum equal to at least 10% of the bid plus all add alternates, or in lieu of the bid bond a security deposit in the form of a certified check, bank treasurer’s check, cashier’s check, money order, or other prior approved secured deposit assigned to the State. The bid bond need not be for a specific sum, but may be stated to be for a sum equal to 10% of the bid plus all add alternates to which it relates and not to exceed a certain stated sum, if said sum is equal to at least 10% of the bid. The Bid Bond form used shall be the standard OMB form (attached). The bid bond may be an electronic bond and need not be transmitted as a paper document.

4.2.2 The Agency has the right to retain the bid security of Bidders to whom an award is being considered until either a formal contract has been executed and bonds have been furnished or the specified time has elapsed so the Bids may be withdrawn or all Bids have been rejected.

4.2.3 In the event of any successful Bidder refusing or neglecting to execute a formal contract and bond within 20 days of the awarding of the contract, the bid bond or security deposited by the successful bidder shall be forfeited.

4.3 SUBCONTRACTOR LIST

4.3.1 In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, each Bidder shall submit with their Bid a completed List of Sub-Contractors included with the Bid Form. NAME ONLY ONE SUBCONTRACTOR FOR EACH TRADE. The bidder

must list **in each category** the full name and address (City & State) of the sub-contractor that the Bidder will be using to perform the work and provide material for that subcontractor category. Should the Bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the Bidder shall list that third-tier contractor's full name and address (City & State). **If the Bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the Bidder intends to perform the work themselves, the Bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

4.3.2 It is the responsibility of the Contractor to ensure that their Subcontractors are in compliance with the provisions of this law. Also, if a Contractor elects to list themselves as a Subcontractor for any category, they must specifically name themselves on the Bid Form and be able to document their capability to act as Subcontractor in that category in accordance with this law.

4.4 AFFIDAVIT OF CONTRACTOR QUALIFICATIONS

4.4.1 In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, each Bidder shall submit with their Bid the Affidavit of Contractor Qualifications certifying that the Bidder will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term. After a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

4.5 AFFIDAVIT OF CRAFT TRAINING COMPLIANCE

4.5.1 In accordance with Title 29, Chapter 69, Section 6962(c)(13) of the Delaware Code, contractors and subcontractors must provide craft training for journeyman and apprentice levels if **all** of the following apply:

A. A project meets the prevailing wage requirement under Title 29, Chapter 69, Section 6960 of the Delaware Code.
B. The contractor employs 10 or more total employees.
C. The project is not a federal highway project

Failure to provide required craft training on the project may subject the successful contractor and/or subcontractor(s) to penalties as outlined in Title 29, Chapter 69, Section 6962(c)(13) of the Delaware Code.

Bidders shall submit the Affidavit of Craft Training Compliance prior to contract execution.

4.6 EQUALITY OF EMPLOYMENT OPPORTUNITY ON PUBLIC WORKS

4.6.1 During the performance of this contract, the contractor agrees as follows:

A. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, sex, color, sexual orientation, gender identity or national origin. The Contractor will take affirmative action to ensure the applicants are employed, and that employees are treated during employment, without regard to their race, creed, sex, color, sexual orientation, gender identity or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting agency setting forth this nondiscrimination clause.

B. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, sex, color, sexual orientation, gender identity or national origin."

4.7 PREVAILING WAGE REQUIREMENT

4.7.1 Wage Provisions: For renovation and new construction projects whose costs exceed the thresholds contained in Delaware Code, Title 29, Section 6960, the minimum wage rates for various classes of laborers and mechanics shall be as determined by the Department of Labor, Division of Industrial Affairs of the State of Delaware.

4.7.2 The employer shall pay all mechanics and labors employed directly upon the site of work, or engaged in custom fabrication work, as that term is defined in Article 1.23 herein and as also as defined in 29 Del. C § 6902 and described in 29 Del. C. § 6960(b), regardless of where the work is performed, unconditionally and not less often than once a week and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the specifications, regardless of any contractual relationship which may be alleged to exist between the employer and such laborers and mechanics.

4.7.3 As per 29 Del. C. § 6960(b), the scale of the wages to be paid must be posted by the employer in a prominent and easily accessible place at the site of the work. There may be withheld from the employer so much of accrued payments as may be considered necessary by the Department of Labor to pay laborers and mechanics employed by the employer the difference between the rates of wages required by the contract to be paid laborers and mechanics on the work and rates of wages received by such laborers and mechanics to be remitted to the Department of Labor for distribution upon resolution of any claims.

4.7.4 Every contract based upon these specifications shall contain a stipulation that sworn payroll information, as required by the Department of Labor, be furnished weekly. The Department of Labor shall keep and maintain the sworn payroll information for a period of 6 months from the last day of the work week covered by the payroll.

4.8 SUBMISSION OF BIDS

4.8.1 Enclose the Bid, the Bid Security, and any other documents required to be submitted with the Bid.

4.8.2 Deposit Bids at the designated location prior to the time and date for receipt of bids indicated in the Advertisement for Bids. Bids received after the time and date for receipt of bids will be marked "LATE BID" and returned.

4.8.3 Bidder assumes full responsibility for timely delivery at location designated for receipt of bids.

4.8.4 Oral, telephonic, paper or telegraphic bids are invalid and will not receive consideration.

4.8.5 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids, provided that they are then fully in compliance with these Instructions to Bidders.

4.8.6 Compliance with Federal Bureau of Investigation rules mandates training for Contractors, Subcontractors, their employees, and custodial workers with access to locations that have access to Criminal Justice Information Services (CJIS). The contract awardee must have fingerprinting and background checks done for all Subcontractors and employees.

4.9 MODIFICATION OR WITHDRAW OF BIDS

4.9.1 Prior to the closing date for receipt of Bids, a Bidder may withdraw a Bid by personal request and by showing proper identification to the Architect. A request for withdraw by letter or fax, if the Architect is notified in writing prior to receipt of fax, is acceptable. A fax directing a modification in the bid price will render the Bid informal, causing it to be ineligible for consideration of award. Telephone directives for modification of the bid price shall not be permitted and will have no bearing on the submitted proposal in any manner.

4.9.2 Bidders submitting Bids that are late shall be notified as soon as practicable and the bid shall be returned.

4.9.3 A Bid may not be modified, withdrawn or canceled by the Bidder during a thirty (30) day period following the time and date designated for the receipt and opening of Bids, and Bidder so agrees in submitting their Bid. Bids shall be binding for 30 days after the date of the Bid opening.

ARTICLE 5: CONSIDERATION OF BIDS

5.1 OPENING/REJECTION OF BIDS

5.1.1 Unless otherwise stated, Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids will be made available to Bidders.

5.1.2 The Agency shall have the right to reject any and all Bids. A Bid not accompanied by a required Bid Security or by other data required by the Bidding Documents, or a Bid which is in any way incomplete or irregular is subject to rejection.

5.1.3 If the Bids are rejected, it will be done within thirty (30) calendar days of the Bid opening.

5.2 COMPARISON OF BIDS

5.2.1 After the Bids have been opened and read, the bid prices will be compared and the result of such comparisons will be made available to the public. Comparisons of the Bids may be based on the Base Bid plus desired Alternates. The Agency shall have the right to accept Alternates in any order or combination.

5.2.2 The Agency reserves the right to waive technicalities, to reject any or all Bids, or any portion thereof, to advertise for new Bids, to proceed to do the Work otherwise, or to abandon the Work, if in the judgment of the Agency or its agent(s), it is in the best interest of the State.

5.2.3 An increase or decrease in the quantity for any item is not sufficient grounds for an increase or decrease in the Unit Price.

5.2.4 The prices quoted are to be those for which the material will be furnished F.O.B. Job Site and include all charges that may be imposed during the period of the Contract.

5.2.5 No qualifying letter or statements in or attached to the Bid, or separate discounts will be considered in determining the low Bid except as may be otherwise herein noted. Cash or separate discounts should be computed and incorporated into Unit Bid Price(s).

5.2.6 Bidders are expected to submit bids that are firm, fixed and inclusive of all existing and potential tariffs at the time of bid. There shall be no change orders due to tariffs, or the uncertainty caused by them, that are in effect when the bid is submitted. If, after a project is awarded and PO issued a new tariff is enacted that impacts the cost of materials or equipment required for the work, a Change Order may be submitted and evaluated by the Owner, with proper justification. Proper justification will be in the form of documentary evidence proving a price increase specifically due to a new tariff, which post-dates: (1) the date the project is awarded; and (2) the date of the purchase order issued by the State.

5.3 DISQUALIFICATION OF BIDDERS

5.3.1 An agency shall determine that each Bidder on any Public Works Contract is responsible before awarding the Contract. Factors to be considered in determining the responsibility of a Bidder include:

A. The Bidder's financial, physical, personnel or other resources including Subcontracts;

B. The Bidder's record of performance on past public or private construction projects, including, but not limited to, defaults and/or final adjudication or admission of violations of the Prevailing Wage Laws in Delaware or any other state;

C. The Bidder's written safety plan;

D. Whether the Bidder is qualified legally to contract with the State;

E. Whether the Bidder supplied all necessary information concerning its responsibility; and,

F. Any other specific criteria for a particular procurement, which an agency may establish; provided however, that, the criteria be set forth in the Invitation to Bid and is otherwise in conformity with State and/or Federal law.

G. Any Bidder who is debarred in another State and/or by the United States Government is also debarred in Delaware.

5.3.2 If an agency determines that a Bidder is nonresponsive and/or nonresponsible, the determination shall be in writing and set forth the basis for the determination. A copy of

the determination shall be sent to the affected Bidder within five (5) working days of said determination.

5.3.3 In addition, any one or more of the following causes may be considered as sufficient for the disqualification of a Bidder and the rejection of their Bid or Bids.

5.3.3.1 More than one Bid for the same Contract from an individual, firm or corporation under the same or different names.

5.3.3.2 Evidence of collusion among Bidders.

5.3.3.3 Unsatisfactory performance record as evidenced by past experience.

5.3.3.4 If the Unit Prices are obviously unbalanced either in excess or below reasonable cost analysis values.

5.3.3.5 If there are any unauthorized additions, interlineation, conditional or alternate bids or irregularities of any kind which may tend to make the Bid incomplete, indefinite or ambiguous as to its meaning.

5.3.3.6 If the Bid is not accompanied by the required Bid Security and other data required by the Bidding Documents.

5.3.3.7 If any exceptions or qualifications of the Bid are noted on the Bid Form.

5.4 ACCEPTANCE OF BID AND AWARD OF CONTRACT

5.4.1 A formal Contract shall be executed with the successful Bidder within twenty (20) calendar days after the award of the Contract.

5.4.2 Per Section 6962(d)(13)a., Title 29, Delaware Code, “The contracting agency shall award any public works contract within thirty (30) days of the bid opening to the lowest responsive and responsible Bidder, unless the Agency elects to award on the basis of best value, in which case the election to award on the basis of best value shall be stated in the Invitation To Bid. Any public school district and its board shall award public works contracts in accordance with this section’s requirements except it shall award the contract within 60 days of the bid opening.”

5.4.3 Each Bid on any Public Works Contract must be deemed responsive by the Agency to be considered for award. A responsive Bid shall conform in all material respects to the requirements and criteria set forth in the Contract Documents and specifications.

5.4.4 The Agency shall have the right to accept Alternates in any order or combination, and to determine the low Bidder on the basis of the sum of the Base Bid, plus accepted Alternates.

5.4.5 The successful Bidder shall execute a formal contract, submit the required Insurance Certificate, and furnish good and sufficient bonds, unless specifically waived in the General Requirements, in accordance with the General Requirement, within twenty (20) days of official notice of contract award. The successful Bidder shall provide, at least two business days prior to contract execution, copies of the Employee Drug Testing Program for the Bidder and all listed Subcontractors. Bonds shall be for the benefit of the Agency with surety in the amount of 100% of the total contract award. Said Bonds shall be conditioned upon the faithful performance of the contract. Bonds shall remain in affect for period of two (2) years after the date of the Certificate of Final Payment.

5.4.6 If the successful Bidder fails to execute the required Contract, Bond and all required information, as aforesaid, within twenty (20) calendar days after the date of official Notice of the Award of the Contract, their Bid guaranty shall immediately be taken and become the property of the State for the benefit of the Agency as liquidated damages, and not as a forfeiture or as a penalty. Award will then be made to the next lowest qualified Bidder of the Work or readvertised, as the Agency may decide.

5.4.7 Each bidder shall supply with its bid its taxpayer identification number (i.e., federal employer identification number or social security number) and should the vendor be awarded a contract, such vendor shall provide to the agency the taxpayer identification license numbers of such subcontractors. Such numbers shall be provided on the later of the date on which such subcontractor is required to be identified or the time the contract is executed. The successful Bidder shall provide to the agency to which it is contracting, within 30 days of entering into such public works contract, copies of all Delaware Business licenses of subcontractors and/or independent contractors that will perform work for such public works contract. However, if a subcontractor or independent contractor is hired or contracted more than 20 days after the Bidder entered the public works contract the Delaware Business license of such subcontractor or independent contractor shall be provided to the agency within 10 days of being contracted or hired.

5.4.8 The Bid Security shall be returned to the successful Bidder upon the execution of the formal contract. The Bid Securities of unsuccessful bidders shall be returned within thirty (30) calendar days after the opening of the Bids.

ARTICLE 6: POST-BID INFORMATION

6.1 CONTRACTOR'S QUALIFICATION STATEMENT

6.1.1 Bidders to whom an award of a Contract is under consideration shall, if requested by the Agency, submit a properly executed AIA Document A305, Contractor's Qualification Statement, unless such a statement has been previously required and submitted.

6.2 Bidders to whom an award of a Contract has been made must produce their Delaware Business License before the Contract can be executed.

ARTICLE 7: PERFORMANCE BOND AND PAYMENT BOND

7.1 BOND REQUIREMENTS

7.1.1 The cost of furnishing the required Bonds, that are stipulated in the Bidding Documents, shall be included in the Bid.

7.1.2 If the Bidder is required by the Agency to secure a bond from other than the Bidder's usual sources, changes in cost will be adjusted as provide in the Contract Documents.

7.1.3 The Performance and Payment Bond forms used shall be the standard OMB forms (attached).

7.2 TIME OF DELIVERY AND FORM OF BONDS

7.2.1 The bonds shall be dated on or after the date of the Contract.

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

7.2.3 The Performance Bond and/or the Payment Bond may be electronic bonds and need not be transmitted as paper documents.

ARTICLE 8: FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

8.1 Unless otherwise required in the Bidding Documents, the Agreement for the Work will be written on AIA Document A101, Standard Form of Agreement Between Owner and Contractor Where the Basis of Payment is a Stipulated Sum.

END OF SECTION

SECTION 002600
PROCUREMENT SUBSTITUTION PROCEDURES

1.01 DEFINITIONS

A. Procurement Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Procurement and Contracting Documents, submitted prior to receipt of bids in accordance with Instructions to Bidders

B. Procurement Prior Approval Requests: Requests for approval of products or manufacturers from those required by the Contract Documents as defined by product selection procedures in Section 016000 "Product Requirements."
   1. Procurement prior approval is required when products or manufacturers are listed in specifications under "Sole Product," "Sole Manufacturer," "Limited List of Products," or "Limited List of Manufacturers" introductory paragraphs.
   2. Procurement prior approval is not required when products or manufacturers are listed in specifications under "Non-Limited List of Products" or "Non-Limited List of Manufacturers" introductory paragraphs.
   3. Where use of "Sole Product," "Sole Manufacturer," "Limited List of Products," or "Limited List of Manufacturers" introductory paragraphs is not allowed by statute, procurement prior approval request is not required.

C. Substitution Requests: Requests for changes in products, materials, equipment, and methods of construction from those indicated in the Contract Documents, submitted following Contract award. See the General Conditions and Section 012500 "Substitution Procedures" for conditions under which Substitution requests will be considered following Contract award.

1.02 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.03 PROCUREMENT SUBSTITUTIONS

A. Procurement Substitutions, General: By submitting a bid, the Bidder represents that its bid is based on materials and equipment described in the Procurement and Contracting Documents, including Addenda. Bidders are encouraged to request approval of qualifying substitute materials and equipment when the Specifications Sections list materials and equipment by product or manufacturer name.

B. Procurement Substitution Requests will be received and considered by Owner when the following conditions are satisfied, as determined by Architect; otherwise requests will be returned without action:
   1. Extensive revisions to the Contract Documents are not required.
   2. Proposed changes are in keeping with general intent of the Contract Documents, including level of quality of the Work represented by requirements therein.
   3. Request is fully documented and properly submitted.

1.04 SUBMITTALS

A. Procurement Substitution Request: Submit to Architect. Procurement Substitution Request must be made in writing in compliance with the following requirements:
   1. Requests for substitution of materials and equipment will be considered if received no later than 10 days prior to date of bid opening date and time.
   2. Submittal Format, Electronic: Submit Procurement Substitution Request, using format provided on Project web-based bidding management software site.
      a. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specifications Sections and Drawing numbers.

b. Provide complete documentation on both the product specified and the proposed substitute, including the following information as appropriate:
   1) List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.
   2) Product data, including drawings and descriptions of products and fabrication and installation procedures.
   3) Point-by-point comparison of specified and proposed substitute product data, fabrication drawings, and installation procedures.
   4) Copies of current, independent third-party test data of salient product or system characteristics.
   5) Samples where applicable or when requested by Architect.
   6) Detailed comparison of significant qualities of proposed substitute with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
   7) Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
   8) Research reports, where applicable, evidencing compliance with building code in effect for Project, from ICC-ES.
   9) Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, which will become necessary to accommodate proposed substitute.

c. Provide certification by manufacturer that proposed substitute is equal to or superior to that required by the Procurement and Contracting Documents, and that its in-place performance will be equal to or superior to product or equipment specified in the application indicated.

d. Bidder, in submitting the Procurement Substitution Request, waives the right to additional payment or an extension of Contract Time because of the failure of substitute to perform as represented in the Procurement Substitution Request.

B. Architect's Action:
   1. Architect may request additional information or documentation necessary for evaluation of the Procurement Substitution Request. Architect will notify all Bidders of acceptance of proposed substitute by means of an Addendum to the Procurement and Contracting Documents.

C. Architect's approval of substitute during bidding does not relieve Contractor of the responsibility to submit required Shop Drawings and to comply with all other requirements of the Contract Documents.

END OF SECTION 002600

SECTION 003132 – GEOTECHNICAL DATA

1. GENERAL

A. Owner's Disclaimer

1. Site Information: Data on subsurface conditions are made available in the Bidding Documents as a convenience to Bidders and the Contractor. They are not intended as representations or warrants of continuity of such conditions between soil borings. It shall be expressly understood that the Owner will not be responsible for interpretations or conclusions drawn there from by the Contractor. Additional test borings and other exploratory operations may be made by the Contractor at no additional cost to the Owner, provided such operations are acceptable to the Architect and Construction Manager.
    a. "Refer to Geotechnical Engineering Report for the William Penn High School Athletic Field Improvements, prepared by Geo-Technology Associates, Inc., dated December 3, 2025."
    b. "Refer to Geotechnical Evaluation Report for the Proposed John G. Leach School, prepared by CGC Geoservices, dated February 6, 2025."
    c. "Refer to Preliminary Geotechnical Evaluation for the Leach School Concept, prepared by Duffield Associates, Inc., dated July 2020."

B. SOIL BORING DATA

1. Boring logs and location plans are included in this section of the project manual. All Contractors are strongly urged to review this information.

END OF SECTION

GEOTECHNICAL ENGINEERING REPORT

William Penn High School Athletic Field Improvements

New Castle County, Delaware



December 3, 2025

Prepared for:
Colonial School District
318 East Basin Road
New Castle, DE, 19720

Attn: Mr. Andrew Moffett

Prepared by:
Geo-Technology Associates, Inc.
Geotechnical and Environmental Consultants

111 Ruthar Drive
Newark, Delaware 19711
(302) 326-2100
www.gtaeng.com

GTA Project No: 252599

GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL • ENVIRONMENTAL •
CONSTRUCTION OBSERVATION AND TESTING

A Practicing Geoprofessional Business Association Member Firm

December 3, 2025

Colonial School District
318 East Basin Road
New Castle, DE 19720

Attn: Mr. Andrew Moffett

Re: Geotechnical Engineering Report
William Penn High School Athletic Field Improvements
New Castle County, Delaware

Dear Andrew:

In accordance with our agreement dated September 19, 2025, Geo-Technology Associates, Inc. (GTA) has conducted a geotechnical engineering study in support of the proposed improvements at William Penn High School located at 713 E Basin Road in New Castle County, Delaware. GTA has prepared this Report to convey our findings, conclusions, and recommendations about subsurface conditions.

Please note that, unless you make other arrangements, GTA will discard all soil samples obtained from the explorations 60 days after the date of this report. If you have any questions or concerns about this report, or if you want additional information, please contact Meghan McDonough at (302) 326-2100 or meghan@gtaeng.com

Sincerely,

GEO-TECHNOLOGY ASSOCIATES, INC.

Ashley Kellmyer
Field Geotechnical Professional

Meghan McDonough, P.E.
Principal



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Appendix A – Figures

Figure No. 1 Site Location Map
Figure No. 2 Exploration Location Plan

Appendix B – Exploration Logs

Notes for Exploration Logs
Test Pit Logs (28 Sheets)
Soil Boring Logs (28 Sheets)

Appendix C – Checklist Items

USDA Soil Map
Infiltration Logs, I-1 through I-28
DNREC Checklist

1.0 SUMMARY OF FINDINGS AND RECOMMENDATIONS

We have prepared this summary for the user's convenience only. Do not rely on it exclusively for any decision-making purpose. Please review the full text of the report which addresses each topic in further detail.

TOPIC	DESCRIPTION
Site Attributes	
Existing Conditions	Parcel Size: Approximately 77.78 acres. Zoning: Institutional/Educational use. Owner: Colonial School District.
Proposed Construction	25,000 square foot field house and dedicated press box/grandstand, two multi-use full turf fields with seating, dedicated turf fields for baseball and softball, five tennis courts, seven pickleball courts, grass practice field, dedicated storage facility for equipment, parking lots, drive aisles, and associated improvements, including new access to Frenchtown Road.
Conditions Encountered	
Topsoil	Topsoil encountered in 28 test pits and 25 borings averaging 2 inches thick.
Existing Fills	Fill encountered in multiple locations to 6 feet bgs.
Native Soils	Medium grained sands overlying low- to moderately- plastic clays.
Groundwater	Encountered in 5 of 29 borings at depths ranging from 25 to 28 ft bgs.
Recommendations	
Site Preparation	Remove asphalt, concrete, existing topsoil and organic matter.
Groundwater	• Widespread groundwater impacts are not anticipated. • Perched water may be encountered in localized excavations. • Commonly used temporary dewatering techniques (e.g., sumps, gravity flow trenches) will be sufficient.
Fill Material Criteria	Excavated soils may be suitable for re-use as fills but moisture conditioning and screening may be required. Imported soils should meet AASHTO A-4 criteria or more granular.
Fill Placement Requirements	• Place fill in maximum 8-inch (loose-measure) lifts. • Compact to minimum 95% of max. dry density (Standard Proctor) for structural fills.
Foundations	• Maximum anticipated settlements: 1-inch total; ½-inch differential between columns where pile supported. • Frost Depth Embedment – 32 inches • Seismic Site Class of D
Slabs	Place slab on a minimum 4-inch-thick gravel base covered with a minimum 6-mil vapor barrier.
Utilities	• Place fill in maximum 6-inch (loose-measure) lifts using hand operated equipment. • Compact to minimum 95% of max. dry density (Standard Proctor) for structural fills.

*bgs = below existing ground surface

2.0 INTRODUCTION

Colonial School District ("Client") has requested a geotechnical exploration for the proposed athletic complex at William Penn High School, located in New Castle County, Delaware. GTA was provided with a plan sheet titled *Soil Boring Location Map – Developed Conditions*, prepared by Becker Morgan Group, dated October 2, 2025. The referenced plan indicates the configuration of the proposed development including structures, parking lots, and stormwater management (SWM) areas. GTA was also provided with an *Existing Conditions Plan* prepared by Becker Morgan, that indicated the proposed test pit and soil boring locations over the existing topography.

2.1 Study Purpose

GTA conducted this study to develop confirmation-dependent geotechnical engineering recommendations for the proposed improvements planned for William Penn High School Athletic Field Improvements, referred to as the "project site". The scope of GTA's study included 29 Standard Penetration Test (SPT) borings performed in the proposed building and pavements areas, 28 exploratory test pits, and 28 single-ring infiltration tests within the SWM areas. Conclusions and recommendations regarding design and construction of the proposed building and associated site improvements were derived from engineering analysis of field data, and review of the referenced plans.

3.0 PROJECT DESCRIPTION

3.1 Site Location

The project site is located at 713 E Basin Road in New Castle County, Delaware, as shown on the *Site Location Map*, Figure 1, included in Appendix A. The 77.78± acre site is identified as Tax Parcel 10-025.00-002. The site is bound by East Basin Road to the northeast and Frenchtown Road East to the southwest. Residential properties are located along the northwestern, and eastern boundaries of the site, also facing East Basin Road. The site is bordered by East Basin Road to the northeast and Frenchtown Road East to the southwest, with residential neighborhoods nearby. The main campus building completed in 1966 occupies is primarily two stories, with some single-story wings. The building is centrally located on the parcel, with parking lots on multiple sides and athletic fields (football, baseball, track) surrounding the main structure.

Access drives connect to East Basin Road and Frenchtown Road East.

3.2 Existing Site Conditions

At the time GTA's exploration was performed, the project site consisted of existing athletic fields and grass cover. Historical aerial images dating back to 1985, show the high school and associated infrastructures with small landscape improvements made to the surrounding athletic fields. Based on topography from the referenced plan, the site is gently sloping from the northwest to southeast with surface grades ranging from elevation (EL) 40 to EL 11 feet.

3.3 Proposed Construction

Based on the provided plan, the proposed construction will consist of new sports fields, bleachers and a single-story field house of approximately 25,00 square feet. Concrete site retaining walls, parking lots, and associated improvements are also anticipated. Maximum column loads are anticipated to be 15 kips or less were provided in the RFP prepared by Baker, Ingram and Associates. Construction for the grandstand and press box will generally consist of first floor slabs-on-grade, masonry bearing walls, a combination of manufactured cold-formed trusses and bar joist roofs. We have assumed that the interior floor slab will have a maximum loading of 125 pounds per square foot (psf). We have assumed that the exterior pads will have maximum loads of 250 psf. If the actual loading or settlement tolerances differ from those assumed herein our analysis and recommendations may not be valid.

GTA anticipates that subsurface utilities will consist of gravity sewer, storm drain, water, gas, electric, and telecom. Utility invert elevations were not available prior to submission of this Report.

Pavements associated with the project site will include ingress/egress to East Basin Road and Frenchtown Road East, as well as, improvements to existing access drives at the school. Other pavements include parking spaces and sidewalks associated with the proposed building and sports fields.

3.4 Proposed Stormwater Management

GTA understands five proposed SWM facilities will have to be constructed to manage the increased surface runoff from the proposed impervious construction. Information regarding the type, size, and proposed bottom of facility elevations for the proposed SWM facilities have been provided designed at the time this report was prepared. We understand the final design of the facilities will be determined from the results of this study.

Location	Related Test Locations	Proposed Invert (Elevation)	Existing Grades Elevation (ft.)
SWM Area 1	I-1 through I-5	7.0	14-16
SWM Area 2	I-5 through I-9	15.0	20-21
SWM Area 3	I-10 through I-12	16.0	23-24
SWM Area 4	I-13 through I-15	25.0	32-34
SWM Area 5	I-16 through I-28	14.0	18-24

4.0 GEOTECHNICAL ENGINEERING STUDY

4.1 Geologic Review

According to the *Geologic Map of the Coastal Plan Portions of The Newark West, Newark East and Wilmington South Quadrangles, Delaware* (DGS, 2025), the site is situated within the Coastal Plain Physiographic Province. The Coastal Plain is characterized by undifferentiated and interlayered sedimentary deposits derived from eroded and transported rock formations to the north and west. Specifically, the western portion of the site is mapped as generally underlain by the Columbia Formation and he eastern portion is mapped as the Lynch Heights Formation. Specifically, the site is underlain by the Pleistocene Age Colombia Formation which consists of yellowish to reddish-brown to brown fine to coarse grained quartz sand with varying amounts of gravel and interbedded layers of clayey silt and sandy silt throughout. The Lynch Heights Formation is described as light-gray to brown to light yellowish brown, medium to fine sand with discontinuous beds of coarse sand, gravel, silt, fine to very fine sand, and organic-rich clayey silt to silty sand. The upper part of the unit commonly consists of fine, well-sorted sand. Small-scale cross-bedding within sands is common. Sands are quartzose, slightly feldspathic, and typically micaceous where fine to fine grained. Refer to the publication for more detailed descriptions of these geologic units.

Based on the U.S. Department of Agriculture (USDA), *Natural Resources Conservation Service (NRCS) Web Soils Survey*, the soils underlying the site are generally mapped as Mattapex-Urban land complex (MuB) and Udorthents (UzC). The units are described as moderately well drained to well drained with a depth to a restrictive feature of greater than 80 inches. Other soils

mapped include Reybold silt loam (ReB) and Woodstown loam (WoaB). Refer to the *USDA Soil Map* included in Appendix C for more information.

Additionally, *The Delaware Geologic Information Resource* website describes the depth to the seasonal high groundwater as being approximately 16 to 20 feet below the ground surface during the wetter periods of the year.

4.2 Subsurface Exploration Scope

GTA performed a subsurface exploration of the site starting October 27, 2025 through November 4, 2025, which included 28 test pits and single-ring infiltration tests within the proposed SWM facilities. The test pit locations were designated as I-1 through I-28, and excavated using a Kubota U35-4 to depths ranging from 4.0 to 9.5 feet below existing ground surface. In addition, GTA also performed 29 Standard Penetration Test (SPT) borings within the proposed building footprint and pavement areas. The borings are designated as B-1 through B-17 for the structure borings, and S-1 through S-14 for the site borings and were performed to depths ranging from 10 to 30 feet below existing ground surface. Borings B-7 and B-11 will be performed at a later date, since the football fields were in active use at the time the exploration was performed.

The *Exploration Location Plan* (Appendix A, Figure No. 2) indicates the approximate exploration locations. Descriptions provided on the test pit logs and test boring logs are based on visual classifications by GTA personnel using the Unified Soil Classification System in accordance with ASTM D2488 (Visual-Manual Procedure) supplemented by the laboratory test results. The classification system is summarized in the *Notes for Explorations Logs* included in Appendix B.

Standard Penetration Testing was performed in the boreholes, with nearly continuous sampling performed in the upper 10 feet of drilling and at 5-foot intervals thereafter. Standard Penetration Testing involves driving a 2-inch outside diameter (O.D.), 1⅜-inch inside diameter (I.D.) split-spoon sampler with a 140-pound hammer free-falling 30 inches. The number of blows required to drive the sampler was recorded in intervals of 6 inches. The total number of hammer blows required to drive the sampler from the 6- to 18-inch interval is the SPT N-value. Split spoon samples retrieved from the test borings were returned to GTA's laboratory.

Exploration locations were provided by Becker Morgan Group and field-located using a hand-held global positioning system (GPS). Ground-surface elevations at the exploration locations were also provided as well as topographic contour lines shown on the provided existing conditions plan. All ground-surface elevations are approximate.

4.3 Subsurface Conditions

The results of the subsurface exploration were, for the most part, consistent with the known site history and geologic setting of the project site. For more information about subsurface conditions, refer to the individual exploration logs within Appendix B. GTA has summarized the subsurface conditions encountered in the following sections.

4.3.1 Surficial Materials

Topsoil was encountered at all but four exploration locations, ranging in thickness of approximately 1 to 5 inches, averaging 2 inches. Borings S-4, S-5, S-9 and S-12 encountered 4 inches of asphalt and 3 to 6 inches of graded aggregate base course.

4.3.2 Existing Fills

Fill material was encountered on the southeastern portion of the site underlying the topsoil and extended to depths of 0.5 to 6.0 feet below existing ground surface.

4.3.3 Native Soils

Beneath the topsoil and existing fill, the explorations encountered cultivated soils consistent with the Lynch Heights Formation. Fine-grained soils visually classified as sandy lean clay and silt, were encountered to depths of 4 to 8 feet below existing ground surface. Below the upper fine-grained materials, granular soils consisting of clayey sand, silty sand, and poorly-graded sand with silt with varying amounts of gravel were encountered to depths of 10 feet to terminated depths. Some borings encountered low- to moderately- plastic materials under the granular materials visually classified as sandy lean clay at depths of 18 feet to terminated depths.

The uncorrected SPT N-values for the upper fine-grained soils ranged from 9 to 36 blows per foot (bpf), indicating these soils are generally stiff to hard. The uncorrected SPT N-values for the natural granular soils ranged from 7 to 42 bpf, indicating these soils are generally medium dense to dense. The uncorrected SPT N-values for the natural fine-grained soils ranged from 5 to 16 bpf, indicating these soils are generally medium stiff to very stiff consistency.

4.3.4 Groundwater

Groundwater was encountered during drilling at depths of about 14 to 24 feet below existing grades. Perched water conditions were observed and may develop in localized areas where granular soils are underlain by less permeable, fine-grained soils. It should be noted that

fluctuations in the long-term groundwater table may occur as a result of changes in precipitation, evaporation, surface water runoff, construction activities, and other factors. Seasonal fluctuations of 3 to 5 feet can occur, based on hydrographs from shallow wells screened within the water table aquifer. The water levels observed during our field exploration are believed to be about 2 to 3 feet below historic seasonal highs.

4.3.5 Infiltration Testing

After observing the soil conditions to evaluate any limiting zones within the soil profile, 28 single-ring infiltration tests were conducted within the test pits, identified as I-1 through I-28, at the approximate depths indicated below. Single-ring infiltration testing was performed in general accordance with the procedures outlined in ASTM D5126 to estimate hydraulic conductivity in the unsaturated zone. The test consisted of seating an open bottom 12-inch diameter casing 2 to 4 inches into the subgrade soils followed by a pre-soak period. After the pre-soak period, water was added to a level of 4 to 6 inches above the test elevation. Water level measurements were recorded over a minimum one-hour period, after the initial pre-soak period. If the observed rate of less 12-inches was observed in a 15-minute period, an additional 1-hour interval was performed. The steady state values over the last hour were recorded as 0 to greater than 12+ inches per hour.

UNFACTORED FIELD INFILTRATION RATES

Location	Depth (ft)	Unfactored Field Infiltration Rate	USCS Soil Classification
I-1	8.0	¼-inch per hour	Sandy SILT (ML)
I-2	9.1	0-inches per hour	Sandy Lean CLAY (CL)
I-3	8.2	0-inches per hour	Sandy Lean CLAY (CL)
I-4	8.6	0-inches per hour	Sandy Lean CLAY (CL)
I-5	7.7	0-inches per hour	Sandy Lean CLAY (CL)
I-6	5.8	0-inches per hour	Sandy Lean CLAY (CL)
I-7	5.9	0-inches per hour	Sandy Lean CLAY (CL)
I-8	5.9	0-inches per hour	Sandy Lean CLAY (CL)
I-9	5.8	0-inches per hour	Sandy Lean CLAY (CL)
I-10	7.3	12+ inches per hour	Silty SAND (SM)
I-11	7.4	12+ inches per hour	Silty SAND (SM)

I-12	7.6	12+ inches per hour	Silty SAND (SM)
I-13	7.9	6-inches per hour	Silty SAND (SM)
I-14	7.9	10+ inches per hour	Silty SAND (SM)
I-15	7.5	12 inches per hour	Silty SAND (SM)
I-16	5.1	10+ inches per hour	Silty SAND (SM)
I-17	6.4	10+ inches per hour	Silty SAND (SM)
I-18	7.7	10+ inches per hour	Silty SAND (SM)
I-19	8.0	10+ inches per hour	Silty SAND (SM)
I-20	4.0	0-inches per hour	Sandy Lean CLAY (CL)
I-21	6.0	10+ inches per hour	Silty SAND (SM)
I-22	6.7	10+ inches per hour	Silty SAND (SM)
I-23	7.3	10+ inches per hour	Silty SAND (SM)
I-24	9.5	10+ inches per hour	Silty SAND (SM)
I-25	4.2	10+ inches per hour	Silty SAND (SM)
I-26	6.2	0-inches per hour	Sandy Lean CLAY (CL)
I-27	6.9	10+ inches per hour	Silty SAND (SM)
I-28	7.7	10+ inches per hour	Silty SAND (SM)

It should be noted that infiltration rates can very widely with variations in soil texture and gradation. Refer to the field data included in Appendix C for the individual locations.

4.4 Site Preparation

4.4.1 Demolition of Existing Utilities

Prior to construction, GTA recommends that a thorough evaluation of the existing and abandoned below grade utilities be performed. Several existing utilities are located within the proposed building/fields/courts footprints. Underground utilities may be encountered at the proposed foundation subgrade or within the zone of stress influence. We recommend that any existing underground utilities within the proposed improvement areas be re-routed outside of the construction area in case the utility requires service in the future and to eliminate the concern

for damage to utilities during construction. All excavations should be sloped or shored in accordance with OSHA trench safety regulations for Class C (sandy) soil types.

Details should be provided on the structural drawings and foundation plans to address utilities that cross footing lines, such as stepping the foundation bearing levels below the utilities, or providing lintels or casings for "live" lines. "Dead" utilities should be removed or abandoned in-place by grouting the conduit or pipe with grout or flowable fill; however, GTA recommends removal and replacement of the trench backfill even if the pipe remains in-situ. Any excavations made for the removal of below grade tanks or utilities should be backfilled with compacted structural fill meeting the requirements specified below. Compacted structural fill, if required, can then be placed to achieve the proposed design grades in accordance with the specifications outlined in this report. Alternatively, the excavations can be backfilled with open-graded aggregate, concrete, or flowable fill.

The existing asphalt should be removed from the proposed building footprint prior to proofrolling the subgrade. The Department of Environmental Control (DNREC) does not allow asphalt to remain under building footprints. The crushed stone can typically be left in place within the building footprint, if the subgrade is deemed acceptable by the Geotechnical Engineer, provided the crushed stone does not interfere with the proposed construction. The subgrade should be evaluated prior to placing fill by proofrolling with a loaded tri-axle dump truck. Any materials identified as unstable or unsuitable should be undercut to stable stratum and backfilled with compacted fill as recommended in the field by the Geotechnical Engineer.

4.5 Earthwork

5.2.1 Stripping and Subgrade Preparation

The general sequence of construction should consist of demolition and removal of existing and abandoned below grade components that fall within the footprint of the proposed building, pavements, retaining walls, foundations, concrete floor slabs, and utilities. Any excavations made for the removal of below grade foundations or utilities should be backfilled with compacted structural fill meeting the requirements outlined below. Following demolition, compacted structural fill, if required, can be placed to achieve the proposed design grades. However, GTA anticipates that minor fills will be required to achieve the design grades. Regardless, if fill is necessary, the non-organic on-site materials classified as SM (silty sand), SP-SM (poorly-graded sand with silt), and with some limitations ML (silt) and CL (lean clay), are considered suitable for use in structural fill construction. The materials classifying as CL should generally not be used for structural fill within the upper 1-foot of pavement subgrade, beneath foundations, or as retaining

wall backfill, but can be used for raising grades within the nonstructural areas, or in deeper fills in pavement areas.

Existing undocumented fill materials were encountered in the upper 3 to 5 feet of the ground surface. Since proposed grading was not available yet, it is undetermined fs these existing fills will remain in place and receive new fill above, or will be removed or "cut" as part of grading operations. If not removed during the site preparation operations, these areas will likely have to be over-excavated to suitable, natural soils during the mass grading operations or foundation construction. The existing fill materials are not considered suitable for direct foundation support without remediation or densification in-place. GTA recommends evaluating the fill materials by proofrolling with a loaded tri-axle dump truck and excavating test pits in the fill to determine the actual depth and relative consistency of the materials before leaving any existing fill in-place below fields/courts, pavements or slabs so that the associated risks can be better quantified. These materials below fields and courts might be able to be densified in-place, and proof rolled after a deep surface compaction. Any surface materials exhibiting instability should be removed and recompacted in multiple lifts not to exceed 10-inches loose thickness prior to the placement of additional structural fill, or stabilized as recommended in the field by the Geotechnical Engineer.

5.2.2 Fill Placement

Prior to the placement of structural fill, areas to receive fill should be proofrolled with a loaded triaxle dump truck or 10-ton roller. Any subgrade materials identified as soft/loose, wet, or otherwise unsuitable should be over-excavated to a stable bearing stratum before placement of structural fill.

After an approved subgrade has been achieved, fills should be placed and compacted in controlled, compacted lifts. These fills should be placed in lifts of no more than 8 inches (as measured before compaction) and compacted to 95 percent of Maximum Dry Density per the Standard Proctor (ASTM D698) the following specifications with a minimum of 4 passes with a vibratory 10-ton roller. Backfill placed in confined areas, such as foundation and utility excavations, should be spread in thinner layers and compacted to the same degree using manually operated compaction equipment.

Fill subgrades and each lift of fill should be observed and tested by a soils technician on a full-time basis, under the supervision of a registered engineer as required per the 2021/2024 International Building Code. All compactive effort should be verified by in-place density testing.

The lower moisture contents were generally encountered in the near surface soils and the wetter materials were generally granular materials encountered deeper in a perched layer or below the water table. The deeper clay lenses generally have a low porosity and low permeability that reduces the total amount of moisture that can be stored in-situ and increases the time for moisture content fluctuations to occur. The recent rainfalls over the last few months have not offset the drying effects of the drought over the last year for this reason. The excavated materials will generally need to be within 3 to 4 percentage points of the optimum moisture content to achieve the specified compaction. Therefore, moisture conditioning could be required prior to application of compactive effort depending on the weather conditions at the time construction proceeds.

The surficial on-site soils and the predominantly fine-grained, variable-plasticity surficial soils are anticipated to be moisture- and disturbance-sensitive. These soils will lose strength if they are allowed to become saturated and if disturbed by construction traffic, but will also be difficult to excavate and break up the clods and blocks if they are dry of optimum when construction begins. Moisture conditioning will likely be required for re-use of these soils as proposed fills regardless of season, but will be particularly challenging if construction activities take place during winter or wet seasons. Discing and air-drying may be feasible during warmer/drier periods. New fills constructed on slopes steeper than 5H:1V (horizontal to vertical) should be keyed into existing slopes for stability considerations. All fill slopes steeper than 5H:1V should generally be placed as structural fill and be controlled and compacted to minimum densities as specified above.

4.6 Buildings, Grandstands and Bleachers

4.6.1 Shallow Foundation Design

Provided the site preparation and grading is performed in accordance with our recommendations, it is our opinion that the structures may be supported on shallow spread footings designed for a maximum net allowable bearing pressure of 3,000 pounds per square foot when founded on suitable natural soils or on new structural fill. Minimum widths for wall footings of 30 inches and column footings of 48 inches are recommended when design based on 3,000 psf yields a narrower footing. Settlement on the order of 1-inch total and ½-inch differential can be anticipated assuming wall loads do not exceed those listed in the proposed construction section of this report. Exterior footings and footings that are not in climate controlled areas, should be a minimum of 32 inches below final exterior grade to provide protection from frost action.

Footings should be supported on medium dense/stiff natural soils or properly prepared structural fill materials. If soft or loose natural soils are encountered during foundation construction, these

areas should be over-excavated to a suitable stratum as recommended in the field by the geotechnical engineer. The footing over-excavations can be backfilled to the design subgrade elevation with properly compacted structural fill, open-graded aggregate, or additional concrete.

Detailed foundation excavation evaluations should be performed in each footing excavation prior to the placement of reinforcing steel and concrete. A representative of the registered Geotechnical Engineer should perform these evaluations to confirm that the design allowable soil bearing pressure is available. The foundation bearing surface evaluations should be performed using a combination of visual observations, hand-rod probing, comparison with the borings, and Dynamic Cone Penetrometer (DCP) testing. Concrete placement should be performed the same day the footings are excavated to prevent exposure and potential weakening of the foundation subgrade.

4.6.2 Drilled Piers

We assume the use of a drilled pier foundation system to resist vertical and lateral pole loads may be considered for the grandstand and bleacher and light masts. These values should be reviewed once loads are available. The drilled pier should be a straight shaft, bearing a minimum of 3 feet below the existing ground surface or deeper as required to resist the lateral loads. The bottom of the shaft should be cleaned thoroughly prior to placing concrete. The concrete for the drilled shaft should be placed in accordance with ACI specifications. If possible, drilled shaft concrete should be placed immediately after excavation and pier construction completed the same day the pier is excavated. Shaft construction and concrete placements should be reviewed and observed by a professional geotechnical engineer or their qualified representative.

The drilled piers should be a straight shaft, bearing in medium stiff to stiff fine-grained soils as required to resist the applied compression, lateral loads, and ground line moments. Based on the results of the test borings, GTA has developed capacities for end bearing and skin friction within the various soil layers identified at the subject site. These values assume water is within 15 feet of the ground surface. The values for each layer are summarized in the following table and were selected to limit total settlements to 1-inch:

The following are additional soil parameters to be used for designing the drilled pier. Regardless of the design generated by using the TIA/EIA-222-H Standard, GTA recommends that the pier be designed such that it does not exceed the maximum net allowable soil bearing pressures indicated in the table below. A minimum overall factor of safety of 1.5 is recommended for calculating group uplift resistance, if required. A factor of safety of 3.0 should be used for individual foundation elements in tension unless a load test is performed as required by the IBC.

Allowable Bearing Capacity and Soil Parameters

Depth (feet)[1]	Friction Angle, ϕ (deg)	Unit Weight, γ (pcf)	Saturated Unit Weight, γ_{sat} (pcf)[2]	Lateral Modulus of Soil Reaction, k (pci)	Allowable Skin Friction (psf)	Maximum Net Allowable Bearing Pressure (psf)
3-5	N/A	115	125	175	675	3,000
5-15	32	120	130	125	400	4,000
15-30	N/A	125	135	175	900	4,000

Notes: [1] = Below existing ground surface, [2] = Does not consider buoyancy

Running sand and sidewall collapse may be encountered if groundwater is not controlled below a depth of 15 feet. The bottom of the shaft should be cleaned thoroughly prior to placing concrete. The concrete for the shaft should be placed in accordance with ACI specifications. If possible, drilled shaft concrete should be placed immediately after excavation and pier construction completed the same day the pier is excavated. Shaft construction and concrete placements should be reviewed and observed by a professional geotechnical engineer or his qualified representative.

4.6.3 Foundation Construction Considerations

The proposed footings will likely be supported on a combination of native soils, or new compacted fill placed following the removal of the existing fill material. The native soils encountered during our subsurface exploration were generally firm enough for foundation support. New fills will be suitable for foundation support only if they are placed and compacted as we recommend in the Fill Placement Section. Each individual column footing should be founded on similar material to reduce the potential for excessive differential settlement or brittle fracture.

Before concrete placement, a licensed geotechnical engineer or a qualified representative selected by such engineer should evaluate footing subgrades and perform penetration testing on the exposed footing subgrades to confirm the design allowable bearing capacity. Any loose/soft soils should be over-excavated to a stable bearing stratum. Over-excavations should be replaced with lean concrete, or No. 57 stone, or controlled, compacted, soil fill. If over-excavations are replaced with soil fill, they should be placed and compacted as recommended in the Fill

Placement Section. Alternatively, the footings could be lowered to a competent bearing stratum. Over-excavation and replacement, if required, should be performed as recommended by a licensed geotechnical engineer or a qualified representative selected by such engineer based on conditions observed in the field during construction. Footings should be concreted on the day they are excavated in order to prevent excessive disturbance and/or moisture increase.

4.6.4 Seismic Site Class Designation

Based on the SPT data, and the site geologic profile, the site should be assigned to Site Class D – Stiff Soil Profile for the western portion of the project site, in accordance with *Chapter 20 of the American Society of Civil Engineers (ASCE) Standard 7-10 Minimum Design Loads for Buildings and Other Structures*. This categorization is based on the near surface test boring results, general geologic information for the region, limited laboratory test results, and the information contained in the standard.

4.6.5 Slab Design

Lowest-level slabs should be designed as concrete slabs-on-grade. To prevent or retard the rise of capillary moisture through the slab, GTA recommends that the slabs should be founded on a minimum 4-inch-thick layer of open-graded stone, covered with a polyethylene vapor barrier beneath the slab. The open-graded stone layer should comprise imported washed gravel or crushed stone materials with less than 5 percent fines. The vapor barrier should be at least 6-mil thick to serve as a radon gas retarder.

4.6.6 Slab Construction

Floor slabs can be designed as concrete slabs-on-grade. Based on the results of the field and laboratory analysis, we recommend that the design of the floor slabs be based on a subgrade modulus of 125 to 175 pounds per cubic inch (pci) provided suitable granular soils as used as structural fill within the upper 12 inches of the slab subgrade. GTA recommends that the concrete floor slabs supported on-grade be founded on a minimum 4-inch thick open-graded coarse granular layer to act as a capillary beam. A polyethylene retarder barrier should be installed in accordance with ACI and ASTM guidelines to interrupt the rise of moisture through the slab if moisture-sensitive floor coverings are planned. Compacted fill subgrades for support of the floor slabs should be observed to evaluate stability prior to placement of concrete. The slabs may bear on footing projections, but they should be jointed so that the foundation walls can settle independently from the slab.

Utility and footing backfill below floor slabs should meet the compaction requirements specified in the *Earthwork* section of this report. Construction activities and exposure to weather often cause deterioration of slab subgrades. The contractor should exercise care during floor slab preparation to limit disturbance to exposed subgrades. We recommend that the slab subgrade soils be evaluated by a representative of the Geotechnical Engineer immediately prior to stone and concrete placement. This evaluation may include a combination of visual observations, proofrolling, hand-rod probing, and field density tests to verify that the subgrade soils have been prepared properly. If soft or loose soils are encountered, recommendations for remedial measures should be provided by the geotechnical engineer at the time of construction.

Before concrete placement, a representative of the third-party testing consultant should verify the stability and compaction of natural and compacted fill subgrades for support of the floor slabs. Soft or loose layers should be removed from the slab subgrade and replaced as recommended in the Fill Placement Section. Floor slabs should not be rigidly connected to foundation walls, so that wall movements will not affect the slab. Control joints should be provided to control shrinkage cracking of the concrete floor system.

4.7 Utilities

4.7.1 Utility Excavations

Based on the results of the explorations, utility excavations to depths of 15 feet, or possibly deeper below existing grades can likely be made using standard excavation techniques. If groundwater is encountered in utility excavations, dewatering devices like sumps or gravity-flow trenches will likely be sufficient to temporarily dewater relatively shallow excavations.

4.7.2 Utility Support

The native soils will likely be suitable for supporting the proposed utilities, provided the sites grades are not raised more than 2 to 3 feet. Any soft/loose or unstable soils encountered at the utility subgrades should be over-excavated and replaced with controlled, compacted fill or open-graded stone. To facilitate compaction, provide additional protection for the pipe, and decrease the risk of excessive trench settlement, GTA recommends placing No. 57 stone, or graded aggregate base (GABC), or crushed stone (CR-6) to at least 6 inches above utility pipes made of plastic or flexible metal and to the spring-line of rigid pipes. The manufacturer's recommendations for type of backfill and maximum depth of cover should be followed.

4.7.3 Utility Trench Backfill

Utilities below pavement and other structural areas should be backfilled with controlled, compacted fill. The backfill should be placed and compacted in accordance with project requirements. Utility trenches should generally be backfilled with granular material. The soils encountered during the subsurface exploration of the project site will generally be suitable for use as utility backfill. They should be placed in maximum 6-inch (loose measure) lifts and compacted at a moisture content of 2 to 4 percent above optimum.

Hand-operated equipment should be used for compaction around utility structures. Where hand-operated equipment is used for compaction, lift thicknesses should not exceed 4 inches (as measured before compaction). When backfilling around utility structures, each lift should be uniformly compacted with a sufficient number of passes to obtain the required degree of compaction.

4.8 Lateral Earth Pressures

Site retaining walls will be subjected to unbalanced lateral-earth pressures, they must be designed to resist such pressures. It is recommended that all backfill within 4 feet of the concrete foundation walls or loading docks consist of compacted granular soils (AASHTO A-2-4 or better). Based on the explorations, these soils are present throughout the site but are generally deeper than 3 to 5 feet. For design using the overburden soils, GTA recommends the following design parameters and considerations:

Soil Property	AASHTO Backfill Material
Unit Weight,	118 pcf
Angle of Internal Friction	30º
Active earth Pressure	39 pcf/ft wall height
Passive Earth Pressure	59 pcf/ft wall height
At-Rest Earth Pressure	90 pcf / ft wall height
Coefficient of Friction for Sliding	0.4

Although not likely required, below grade foundation walls for loading dock should be designed to resist the pressures from the retained soils. A triangular distribution considering an active equivalent fluid pressure of 59H (psf), where H is the height of unbalanced load in feet, should be used for the soil above the estimated seasonal high water table, and 90H psf below the estimated seasonal high water table. A rectangular pressure distribution equal to 0.33 times the

magnitude of the uniform load in psf should be added for any surface surcharge loads, as appropriate.

Passive earth pressure of soil adjacent to the footing as well as friction at the footing base may be used to resist shear. An ultimate friction coefficient between the concrete and soil can be assumed to be 0.5. However, the ultimate friction coefficient between the concrete and waterproofing membrane, if used, may need to be reduced depending on the materials. To compute the soil weight, we recommend a buoyant unit weight of 65 pcf be used for soils below the water table.

Ultimate passive soil resistance is assumed to function as a fluid with an equivalent unit weight of 354 pcf above the estimated seasonal high water elevation, 177 pcf below estimated seasonal high water elevation. We recommend that a safety factor of at least 1.5 be used to determine the soil's allowable passive resistance and the soil's allowable friction, as significant horizontal displacement is required to fully develop the soil's passive resistance.

Wall backfill should be free of organic matter, rocks greater than 3 inches in diameter, and construction debris. Backfill should be placed and compacted in lifts in a manner that does not damage the foundation or water proofing. Additionally, foundation wall backfill should not be placed until the concrete has achieved adequate strength and the structure is braced per the design requirements.

At a minimum, we recommend that commercial composite materials drainage panels and a perimeter drain be provided behind below grade walls to carry away any infiltrating surface water so that hydrostatic pressures do not develop. The perimeter drain should consist of a 4-inch-diameter slotted or perforated pipe encased in a minimum of 6 inches of crushed stone and be wrapped by a geotextile filter. The crushed stone should meet the gradational requirements of AASHTO Size No. 57 aggregate. The perimeter drain should tie into weep holes, a sump pit, adjacent storm sewer, or off-site drainage system. All below-grade walls should be water-proofed.

4.9 Segmental Block Retaining Wall Recommendations

As indicated on the RFP, site retaining walls will be required as part of the proposed site improvements. If segmental or mechanically stabilized wall are considered, these retaining walls will consist mainly of on-site soils in the foundation/retained/reinforced zone. Therefore, the wall design should include details where retained materials consist of primarily granular soil and

be designed in accordance with the soil parameters outlined in the Lateral Earth Pressure Recommendations section of this report. The NCMA Segmental Retaining Walls Best Practices Guide recommends soil fill placed within the reinforced zone contain less than 35% fines (Material passing the No. 200 sieve). It should be noted that a portion of the surficial soils do not meet this gradation and will not be suitable as reinforced backfill for segmental block retaining walls. Segregation of soils or processing of on-site soil will be necessary to effectively re-use portions of the on-site soils within the reinforced zone.

Site retaining walls for this project should be designed by a professional engineer licensed in the State of Delaware. Retaining wall design is beyond GTA's scope of services for this Geotechnical Engineering Report; however, GTA can provide those services if required. Due to traffic surcharges, proximity to stormwater management facilities, and sloping conditions above and below site retaining walls, global stability analyses should be performed and will govern the wall design. Retaining walls along parking areas should account for the loading from the structures. If a modular block system is considered, a 4 to 8 percent degree batter will be required for most block system. In addition, other offset distances including fences, guardrails and curbs should be incorporated from the top of wall. Given the results of the preliminary strength testing, GTA recommends using retaining wall parameters for mechanically stabilized earth walls over 15 feet tall. Wall backfill will need to meet the requirements of SM or coarser with 15 percent fines or less.

Preliminary MSEW Soil Parameters

Soil Property	Foundation Soils	Reinforced Zone	Retained Zone
Unit Weight	118 pcf	125	118 pcf
Friction Angle, ϕ (deg)	30 º	32 º	30 º
Bearing Pressure	N/A	N/A	N/A

Global stability will likely be the driving factor for design in the walls over 20 feet tall. As such, geo-grids lengths could be greater than 1.5 times the height of the wall, and will need to be coordinate with below grade. Other considerations should depth of foundations relative to horizontal and vertical wall components, and effect on sequence of construction. New fills constructed on existing slopes steeper than 5H:1V (horizontal to vertical) should be keyed into

existing slopes for stability considerations. All proposed fill slopes steeper than 5H:1V should be placed as structural fill and be controlled and compacted to the densities specified in the Structural Fill and Backfill section of this report. Based upon the surficial fine-grained soils encountered in our exploration, the use of fill slopes steeper than 3H:1V will require additional engineering evaluation, may warrant special erosion protection, and will likely require geosynthetic reinforcement or the use of granular materials. GTA recommends flattening fill slopes to 3H:1V or the use of high-quality granular materials or geogrid reinforcement will be required.

5.0 STORMWATER MANAGEMENT CONSIDERATIONS

The guidelines established in the Delaware Sediment and Stormwater program technical Document Article 3.06, Appendix 3.06.2. A-1 Soil Investigation Procedures indicate that the minimum infiltration rate for all runoff reduction and infiltration practices is 1-inch per hour. Also, a vertical separation of two (2) feet from the seasonal high groundwater elevation is required for all infiltration practices unless an underdrain is provided.

INFILTRATION POND – DESIGN RECOMMENDATION SUMMARY

Location	Recommended Design Rate	Corresponding EL for Design Rate	Estimated Seasonal High Water Table, EL
SWM Area 1	Infiltration not recommended EL 7 or above		*Perched water in some explorations near EL 5 to 8
SWM Area 2	Infiltration not recommended EL 7 or above		*Perched water in some explorations near EL 5 to 8
SWM Area 3	6-inches per hour	EL 16	EL 8 to 10
SWM Area 4	3-inches per hour	EL 25	EL 8 to 10
SWM Area 5	6-inches per hour	EL 14	EL 8 to 10 *Perched water in some explorations near EL 5 to 8

We understand that SWM Areas 2, 3 and 5 were intended to be closed underground infiltration systems below fields and pavements , while the remainder may be open bottom basins. GTA recommends that the facilities be excavated using a track-mounted excavator or other equipment which will eliminate the need to operate equipment directly on the subgrade. We do not recommend placing topsoil across the bottoms following excavation and grading to the design elevations if they will remain open-bottomed. The construction equipment will densify the infiltrating subgrade. Additionally, the topsoil is typically a fine-grained soil which will impede infiltration due to the silt/clay fraction. We recommend that a grass seed mix be sprayed or cast along the bottom during a period which will allow germination and also can germinate and establish in silty and poorly-graded sands. This eliminates the need for equipment on the subgrade once the facility is constructed. The type of grass can be mowed if necessary, but the grass clippings will need to be bagged otherwise they clog the subgrade. A seed mix requiring little to no maintenance is preferred. A landscape architect should be consulted for recommendations on seed mix. The closed systems can be designed for a net allowable bearing capacity of 3,000 pounds per square foot.

Lastly, if any facility will be used as a sediment trap during construction, we recommend that a minimum two-foot soil buffer be maintained above the infiltration subgrade to eliminate the need to track on the subgrade and so the effect of the stresses from the equipment do not affect the infiltration capacity. During conversion of the facility, the geotechnical engineer should be on-site along with the Certified Construction Reviewer to review means and methods with the earthwork contractor to ensure no equipment operates on the design subgrade. During removal of the collected sediment and excavation process, the contractor will need to work from the sides of the facility (preferred method), or sit on the elevated grade and work backwards to eliminate the need to track on the design subgrade.

6.0 LIMITATIONS

This report, including all supporting boring logs, field data, field notes, laboratory test data, calculations, estimates and other documents prepared by GTA in connection with this project have been prepared for the exclusive use of Colonial School District pursuant to agreements between GTA and Colonial School District in accordance with generally accepted engineering practice. All terms and conditions set forth in the Agreement and the General Provisions attached thereto are incorporated herein by reference. No warranty, express or implied, is made herein. Use and reproduction of this report by any other person without the expressed written permission of GTA and Colonial School District is unauthorized and such use is at the sole risk of the user.

The analysis and recommendations contained in this report are based on the data obtained from limited observation and testing of the encountered materials. Explorations indicate soil conditions only at specific locations and times and only at the depths penetrated. They do not necessarily reflect strata or variations that may exist between exploration locations. Consequently, the analysis and recommendations must be considered preliminary until the subsurface conditions can be verified by direct observation at the time of construction. If variations of subsurface conditions from those described in this Report are noted during construction, recommendations in this report may need to be reevaluated.

In the event that any changes in the nature, design, or location of the facilities are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report are verified in writing. GTA is not responsible for any claims, damages, or liability associated with interpretation of subsurface data or reuse of the subsurface data or engineering analysis without the expressed written authorization of Geo-Technology Associates, Inc.

The scope of our services for this geotechnical exploration did not include any environmental assessment or investigation for the presence or absence of wetlands, or hazardous or toxic materials in the soil, surface water, groundwater or air, on or below or around this site. Any statements in this report or on the logs regarding odors or unusual or suspicious items or conditions observed are strictly for the information of our client.

This report and the attached logs are instruments of service. The subject matter of this report is limited to the facts and matters stated herein. Absence of a reference to any other conditions or subject matter shall not be construed by the reader to imply approval by the writer.

Important Information about This

Geotechnical Engineering Proposal

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Participate in Development of the Subsurface Exploration Plan

Geotechnical engineering begins with the creation of an effective subsurface exploration plan. This proposal starts the process by presenting an initial plan. While that plan may consider the unique physical attributes of the site and the improvements you have in mind, it probably does not consider your unique goals, objectives, and risk management preferences. Subsurface exploration plans that are finalized without considering such factors presuppose that clients' needs are unimportant, or that all clients have the same needs. *Avoid the problems that can stem from such assumptions* by finalizing the plan and other scope elements directly with the geotechnical engineer you feel is best qualified for the project, along with the other project professionals whose plans are affected by the geotechnical engineer's findings and recommendations. If you have been told that this step is unnecessary; that client preferences do not influence the scope of geotechnical engineering service or that someone else can articulate your needs as well as you, you have been told wrong. No one else can discuss your geotechnical options better than an experienced geotechnical engineer, and no one else can provide the input you can. Thus, while you certainly are at liberty to accept a proposed scope "as is," recognize that it could be a unilateral scope developed without direct client/engineer discussion; that authorizing a unilateral scope will force the geotechnical engineer to accept all assumptions it contains; that assumptions create risk. *Manage your risk. Get involved.*

Expect the Unexpected

The nature of geotechnical engineering is such that planning needs to *anticipate the unexpected*. During the design phase of a project, more or deeper borings may be required, additional tests may become necessary, or someone associated with your organization may request a service that was not included in the final scope. During the construction phase, additional services may be needed to respond quickly to unanticipated conditions. In the past, geotechnical engineers commonly did whatever was required to oblige their clients' representatives and safeguard their clients' interests, taking it on faith that their clients wanted them to do so. But some, evidently, did not, and refused to pay for legitimate extras on the ground that the engineer proceeded without proper authorization, or failed to submit notice in a timely manner, or failed to provide proper documentation. *What are your preferences? Who is permitted to authorize additional geotechnical services on your project? What type of documentation do you require? To whom should it be sent? When? How?* By addressing these and similar issues sooner rather than later, you and your geotechnical engineer will be prepared for the unexpected, to help prevent molehills from growing into mountains.

Have Realistic Expectations; Apply Appropriate Preventives

The recommendations included in a geotechnical engineering report are *not final*, because they are based on opinions that can be verified only during construction. For that reason, most geotechnical engineering proposals offer the construction observation services that permit the geotechnical engineer of record to confirm that subsurface conditions are what they were expected to be, or to modify recommendations when actual conditions were not anticipated. *An offer to provide construction observation*

is an offer to better manage your risk. Clients who do not take advantage of such an offer; clients who retain a second firm to observe construction, can create a high-risk "Catch-22" situation for themselves. *The geotechnical engineer of record cannot assume responsibility or liability for a report's recommendations when another firm performs the services needed to evaluate the recommendations' adequacy*. The second firm is also likely to disavow liability for the recommendations, because of the substantial and possibly uninsurable risk of assuming responsibility for services it did not perform. Recognize, too, that no firm other than the geotechnical engineer of record can possibly have as intimate an understanding of your project's geotechnical issues. As such, reliance on a second firm to perform construction observation can elevate risk still more, because its personnel may not have the wherewithal to recognize subtle, but sometimes critically important unanticipated conditions, or to respond to them in a manner consistent with your goals, objectives, and risk management preferences.

Realize That Geoenvironmental Issues Have Not Been Covered

The equipment, techniques, and personnel used to perform a geoenvironmental study differ significantly from those used to perform a geotechnical study. *Geoenvironmental services are not being offered in this proposal. The report that results will not relate any geoenvironmental findings, conclusions, or recommendations*. Unanticipated environmental problems have led to numerous project failures. If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may be addressed as part of the geotechnical engineering study described in this proposal, the geotechnical engineer who would lead this project ***is not*** a mold prevention consultant; ***none of the services being offered have been designed or proposed for the purpose of mold prevention.***

Have the Geotechnical Engineer Work with Other Design Professionals and Constructors

Other design team members' misinterpretation of a geotechnical engineering report has resulted in costly problems. Manage that risk by having your geotechnical engineer confer with appropriate members of the design team before finalizing the scope of geotechnical service (as suggested above), and, again, after submitting the report. *Also retain your geotechnical engineer to review pertinent elements of the design team members' plans and specifications.*

Reduce the risk of unanticipated conditions claims that can occur when constructors misinterpret or misunderstand the purposes of a geotechnical engineering report. Use appropriate language in your contract documents. Retain your geotechnical engineer to participate in prebid and preconstruction conferences, and to perform construction observation.

Read Responsibility Provisions Closely

Clients, design professionals, and constructors who do not recognize that geotechnical engineering is far less exact than other engineering disciplines can develop unrealistic expectations. Unrealistic expectations can lead to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their proposals. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks, thus to encourage more effective scopes of service. *Read this proposal's provisions closely*. Ask questions. Your geotechnical engineer should respond fully and frankly.

Rely on Your Geotechnical Engineer for Additional Assistance

Membership in the Geoprofessional Business Association (GBA) exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit to everyone involved with a construction project. Confer with a GBA-member geotechnical engineer for more information. Confirm a firm's membership in GBA by contacting GBA directly or at its website.



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APPENDIX A



Notes:

1) Base map obtained from Google Earth Imagery, Inc. from May 17, 2023.

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Geotechnical and Environmental Consultants
111 Ruthar Drive
Newark, Delaware 19711
(302) 326-2100

SITE LOCATION MAP

WILLIAM PENN HS ATHLETIC FIELD IMPROVEMENTS

NEW CASTLE COUNTY, DELAWARE

SCALE	DATE	DRAWN BY	REVIEW BY	JOB NO.	FIGURE NO.
NTS	MON YR	GOOGLE	MM	252599	1

STRUCTURAL BORING SUMMARY

BORING	NORTHING	EASTING	EX. ELEV.
B - 1	606955	609345	26.13'
B - 2	607139	609245	29.16'
B - 3	607071	609340	28.52'
B - 4	607011	609448	21.30'
B - 5	607195	609348	22.61'
B - 6	607116	609422	21.76'
B - 7	607037	609497	20.75'
B - 8	607222	609397	22.14'
B - 9	607145	609791	16.31'
B - 10	607277	609719	20.38'
B - 11	607409	609648	21.99'
B - 12	606478	609471	20.64'
B - 13	606514	609537	20.26'
B - 14	606549	609603	19.23'
B - 15	606862	608992	28.43'
B - 16	607896	608015	36.77'
B - 17	608080	608238	34.20'

SITE / PAVEMENT BORING SUMMARY

BORING	NORTHING	EASTING	EX. ELEV.
S - 1	606864	609484	18.50'
S - 2	607132	609144	29.37'
S - 3	607079	608856	29.62'
S - 4	607400	609128	31.68'
S - 5	607593	609410	30.33'
S - 6	607321	608683	33.06'
S - 7	607729	608573	37.90'
S - 8	608172	608459	34.08'
S - 9	608088	608564	34.74'
S - 10	607952	609143	35.13'
S - 11	607594	608475	39.26'
S - 12	607378	609412	27.06'
S - 13	606350	609336	21.35'
S - 14	606713	609242	23.28'

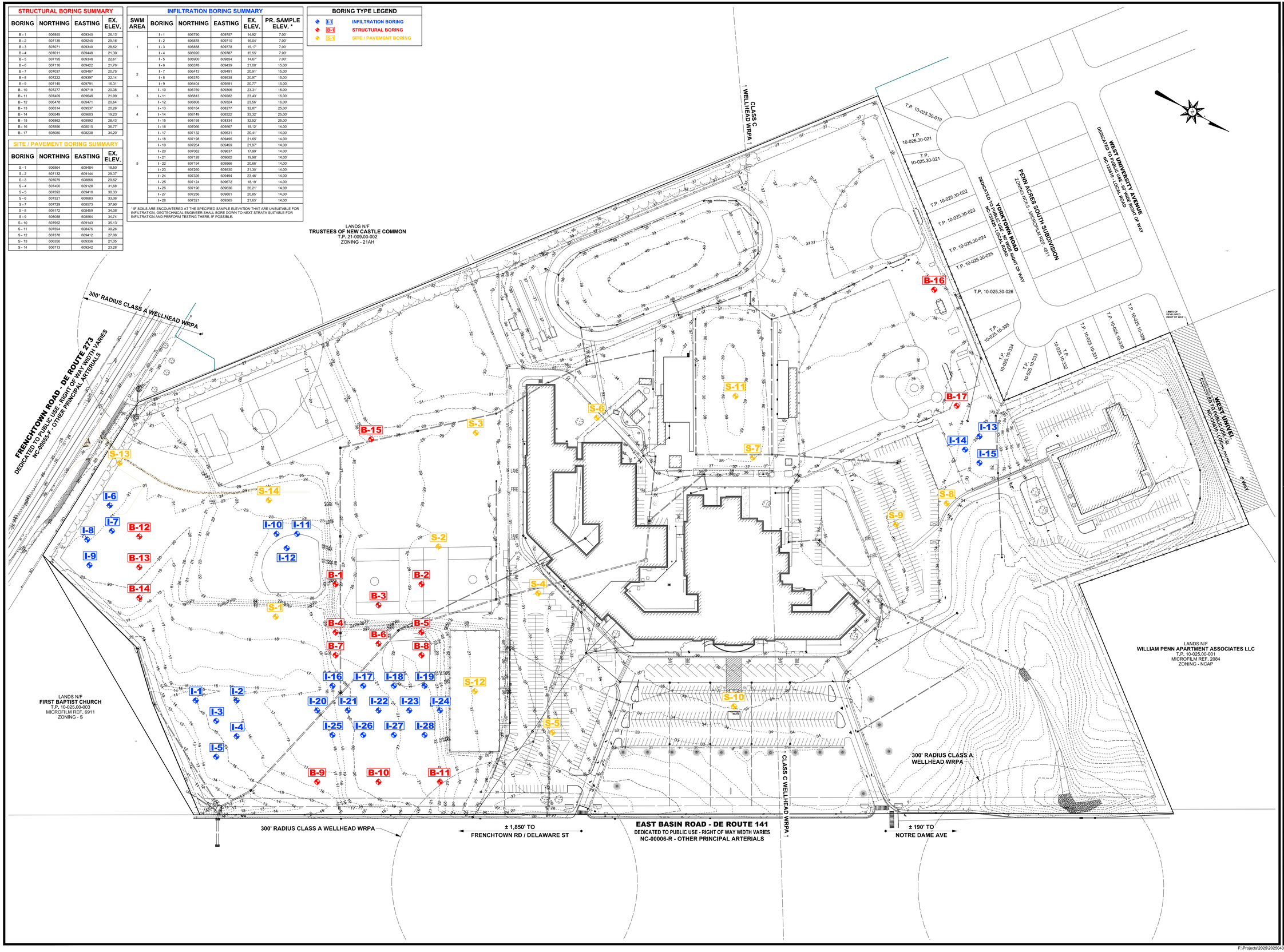
INFILTRATION BORING SUMMARY

SWM AREA	BORING	NORTHING	EASTING	EX. ELEV.	PR. SAMPLE ELEV. *
1	I - 1	606790	609757	14.92'	7.00'
	I - 2	606878	609710	16.04'	7.00'
	I - 3	606858	609778	15.17'	7.00'
	I - 4	606920	609787	15.50'	7.00'
	I - 5	606900	609854	14.67'	7.00'
2	I - 6	606378	609439	21.08'	15.00'
	I - 7	606413	609491	20.91'	15.00'
	I - 8	606370	609538	20.97'	15.00'
	I - 9	606404	609591	20.77'	15.00'
3	I - 10	606769	609306	23.31'	16.00'
	I - 11	606813	609282	23.43'	16.00'
	I - 12	606808	609324	23.56'	16.00'
4	I - 13	608164	608277	32.87'	25.00'
	I - 14	608149	608322	33.32'	25.00'
	I - 15	608195	608334	32.52'	25.00'
5	I - 16	607066	609567	19.12'	14.00'
	I - 17	607132	609531	20.41'	14.00'
	I - 18	607198	609495	21.65'	14.00'
	I - 19	607264	609459	21.97'	14.00'
	I - 20	607062	609637	17.99'	14.00'
	I - 21	607128	609602	19.98'	14.00'
	I - 22	607194	609568	20.66'	14.00'
	I - 23	607260	609530	21.30'	14.00'
	I - 24	607326	609494	23.46'	14.00'
	I - 25	607124	609672	18.19'	14.00'
	I - 26	607190	609636	20.21'	14.00'
	I - 27	607256	609601	20.85'	14.00'
	I - 28	607321	609565	21.65'	14.00'

* IF SOILS ARE ENCOUNTERED AT THE SPECIFIED SAMPLE ELEVATION THAT ARE UNSUITABLE FOR INFILTRATION, GEOTECHNICAL ENGINEER SHALL BORE DOWN TO NEXT STRATA SUITABLE FOR INFILTRATION AND PERFORM TESTING THERE, IF POSSIBLE.

BORING TYPE LEGEND

- I-1 INFILTRATION BORING
- B-1 STRUCTURAL BORING
- S-1 SITE / PAVEMENT BORING



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ENGINEERING

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Newark
302.369.3700

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410.546.9100

North Carolina
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PROJECT TITLE

APPLICATION No.: XXXX-XXXX-XX

WILLIAM PENN HIGH SCHOOL: ATHLETIC FIELD IMPROVEMENTS

EXPLORATORY MINOR LAND DEVELOPMENT PLAN

713 E BASIN ROAD
NEW CASTLE HUNDRED
NEW CASTLE COUNTY, DE

SHEET TITLE

SOIL BORING LOCATION MAP
(EXISTING CONDITIONS)

0 50 100 200

SCALE: 1" = 100'

ISSUE BLOCK

MARK	DATE	DESCRIPTION

LAYER STATE: SWMBORING

PROJECT NO.:	**2025040.00**
DATE:	**10/02/2025**
SCALE:	**1" = 100'**
DRAWN BY: **T.D.G.**	PROJ. MGR.: **T.D.G.**

SHEET

1 OF 1

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APPENDIX B

NOTES FOR EXPLORATION LOGS

KEY TO USCS TERMINOLOGY AND GRAPHIC SYMBOLS

MAJOR DIVISIONS (BASED UPON ASTM D 2488)			SYMBOLS GRAPHIC	SYMBOLS LETTER
COARSE - GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LESS THAN 5% PASSING THE NO. 200 SIEVE)		GW
				GP
		GRAVELS WITH FINES (MORE THAN 15% PASSING THE NO. 200 SIEVE)		GM
				GC
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LESS THAN 5% PASSING THE NO. 200 SIEVE)		SW
				SP
		SANDS WITH FINES (MORE THAN 15% PASSING THE NO. 200 SIEVE)		SM
				SC
FINE - GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50	SILT OR CLAY (<15% RETAINED THE NO. 200 SIEVE)		ML
		SILT OR CLAY WITH SAND OR GRAVEL (15% TO 30% RETAINED THE NO. 200 SIEVE)		CL
		SANDY OR GRAVELY SILT OR CLAY (>30% RETAINED THE NO. 200 SIEVE)		OL
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50	SILT OR CLAY (<15% RETAINED THE NO. 200 SIEVE)		MH
		SILT OR CLAY WITH SAND OR GRAVEL (15% TO 30% RETAINED THE NO. 200 SIEVE)		CH
		SANDY OR GRAVELY SILT OR CLAY (>30% RETAINED THE NO. 200 SIEVE)		OH
HIGHLY ORGANIC SOILS				PT

NOTE: DUAL SYMBOLS ARE USED TO INDICATE COARSE-GRAINED SOILS CONTAINING AN ESTIMATED 10% FINES BY VISUAL CLASSIFICATION OR WHEN THE SOIL HAS BETWEEN 5 AND 12 PERCENT FINES FROM LABORATORY TESTS; AND FOR FINE-GRAINED SOILS WHEN THE PLOT OF LIQUID LIMIT & PLASTICITY INDEX VALUES FALLS IN THE PLASTICITY CHART'S CROSSHATCHED AREA. RESULTS OF LABORATORY TESTING ARE USED TO SUPPLEMENT THE CLASSIFICATION OF THE SOILS BASED ON THE VISUAL-MANUAL PROCEDURES OF ASTM D2488.

ADDITIONAL TERMINOLOGY AND GRAPHIC SYMBOLS

	DESCRIPTION		GRAPHIC SYMBOLS
ADDITIONAL DESIGNATION	TOPSOIL		
	MAN-MADE FILL		
	GLACIAL TILL		
	COBBLES AND BOULDERS		
RESIDUAL SOIL DESIGNATION	DESCRIPTION	"N" VALUE	
	HIGHLY WEATHERED ROCK	50 TO 50/1"	
	PARTIALLY WEATHERED ROCK	MORE THAN 50 BLOWS FOR 1" PENETRATION, AUGER PENETRABLE	

COARSE-GRAINED SOILS
(GRAVEL AND SAND)

DESIGNATION	BLOWS PER FOOT (BPF) "N"
VERY LOOSE	0 - 4
LOOSE	5 - 10
MEDIUM DENSE	11 - 30
DENSE	31 - 50
VERY DENSE	>50

NOTE: "N" VALUE DETERMINED AS PER ASTM D1586

FINE-GRAINED SOILS
(SILT AND CLAY)

CONSISTENCY	BPF "N"
VERY SOFT	<2
SOFT	2 - 4
MEDIUM STIFF	5 - 8
STIFF	9 - 15
VERY STIFF	16 - 30
HARD	>30

NOTE: ADDITIONAL DESIGNATIONS TO ADVANCE SAMPLER INDICATED IN BLOW COUNT COLUMN:
WOH = WEIGHT OF HAMMER
WOR = WEIGHT OF ROD(S)

SAMPLE TYPE

DESIGNATION	SYMBOL
SPLIT-SPOON	S-
SHELBY TUBE	U-
ROCK CORE	R-

WATER DESIGNATION

DESCRIPTION	SYMBOL
ENCOUNTERED DURING DRILLING	▽
UPON COMPLETION OF DRILLING	▼
24 HOURS AFTER COMPLETION	⧩

NOTE: WATER OBSERVATIONS WERE MADE AT THE TIME INDICATED. POROSITY OF SOIL STRATA, WEATHER CONDITIONS, SITE TOPOGRAPHY, ETC. MAY CAUSE WATER LEVEL CHANGES.

LOG OF TEST PIT NO. I-1

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/27/25**
DATE COMPLETED: **10/27/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **14.9**
DATUM: **Topo**
LOGGED BY: **M.McDonough**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil +/- 4.0 Inches	
14.6		FILL		Brown, dry, sandy lean clay FILL, contains rock fragments and cobbles	
	2				
11.5		CL		Orange and light gray, mottled, moist, Sandy Lean CLAY, contains cobbles	
	4				
	6				
8.8		ML		Gray and orange, mottled, Sandy SILT	
	8				
4.9	10			Test pit terminated at 10.0 feet.	
	12				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-1

LOG OF TEST PIT NO. I-2

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/27/25**
DATE COMPLETED: **10/27/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **16.0**
DATUM: **Topo**
LOGGED BY: **M.McDonough**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil/Artificial Turf +/- 5.0 Inches	
15.6		FILL		Tan, dry, sandy silt FILL, contains gravel	
	2				
13.6		CL		Orange and gray, mottled, moist, Lean CLAY	
	4				
	6				
8.2	8	SC		Orange, moist, Clayey SAND, contains gravel and clay lenses	
7.1		CL		Orange and red, moist, Lean CLAY	
	10				
5.0				Test pit terminated at 11.0 feet.	
	12				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-2

LOG OF TEST PIT NO. I-3

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/27/25**
DATE COMPLETED: **10/27/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **15.1**
DATUM: **Topo**
LOGGED BY: **M.McDonough**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil/Artificial Turf +/- 5.0 Inches	
14.7		FILL		Brown, dry, silt with sand FILL, contains gravel and cobbles	
	2				
	4				
10.6		ML		Gray, dry to moist, SILT	
9.1	6	CL		Brown, moist, Lean CLAY	
	8				
	10				
4.9				Test pit terminated at 10.2 feet.	
	12				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-3

LOG OF TEST PIT NO. I-4

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**
PROJECT NO.: **252599**

DATE STARTED: **10/27/25**
DATE COMPLETED: **10/27/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **15.5**
DATUM: **Topo**
LOGGED BY: **M.McDonough**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil/Artificial Turf +/- 5.0 Inches	
15.1		FILL		Tan, dry, sandy silt FILL, contains gravel and cobbles	
	2				
11.7	4	CL		Gray, moist, Lean CLAY	
	6			Gray and orange, mottled, moist, Lean CLAY, contains sand and gravel	
	8				
	10				
5.0				Test pit terminated at 10.5 feet.	
	12				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-4

LOG OF TEST PIT NO. I-5

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/27/25**
DATE COMPLETED: **10/27/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **15.0**
DATUM: **Topo**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
14.8	0			Sod/Grass +/- 2.0 Inches	
		FILL		Tan, dry, silty sand FILL, contains gravel	
13.5		ML		Brown and tan, dry, Silty SAND, contains gravel	
	2				
11.5		CL		Gray, moist, Sandy Lean CLAY	
	4				
	6				
	8				
5.3				Test pit terminated at 9.7 feet.	
	10				
	12				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-5

LOG OF TEST PIT NO. I-6

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **21.0**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil +/- 6.0 Inches	
20.5		FILL		Light brown, moist, sandy lean clay FILL	
20.0		CL		Light gray and orange, moist, Lean CLAY	
	1.5				
	3				
	4.5			Light gray and orange, moist, Sandy Lean CLAY, contains gravel	
	6				
	7.5				
13.0				Test pit terminated at 8.0 feet.	
	9				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-6

LOG OF TEST PIT NO. I-7

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **20.9**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil +/- 12.0 Inches	
19.9		FILL		Light brown, dry, sandy lean clay FILL	
	1.5				
18.9		CL		Light gray and orange, moist, Lean CLAY	
	3				
	4.5				
	6				
	7.5				
13.0				Test pit terminated at 7.9 feet.	
	9				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-7

LOG OF TEST PIT NO. I-8

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **21.0**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil +/- 6.0 Inches	
20.5		FILL		Light brown, dry, sandy lean clay FILL, contains gravel	
19.8		CL		Light brown and gray, moist, Lean CLAY	
	1.5				
	3			Light gray and orange, moist, Lean CLAY	
	4.5				
	6				
	7.5				
13.0				Test pit terminated at 8.0 feet.	
	9				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-8

LOG OF TEST PIT NO. I-9

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **20.7**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil +/- 6.0 Inches	
20.2		FILL		Orange, moist, silty sand FILL Light brown, dry, sandy Lean clay FILL	
	1.5				
18.7		CL		Light gray and orange, moist, Lean CLAY	
	3				
	4.5				
	6				
	7.5				
12.9				Test pit terminated at 7.8 feet.	
	9				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-9

LOG OF TEST PIT NO. I-10

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **23.3**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil +/- 9.0 Inches	
22.5		FILL		Light brown and gray, dry, sandy lean clay FILL, contains rock fragments and gravel	
	2				
21.0		SP-SM		Orange and tan, moist, Poorly-graded SAND with Silt, contains gravel	
	4				
	6				
	8				
14.0				Test pit terminated at 9.3 feet.	
	10				
	12				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-10

LOG OF TEST PIT NO. I-11

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **23.4**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
23.2	0			Topsoil +/- 3.0 Inches	
		FILL		Light brown and tan, moist, silty sand FILL, contains brick fragments and gravel Gray and brown, dry, sandy lean clay FILL, contains gravel	
	2				
20.8		SP-SM		Orange, moist, Poorly-graded SAND with Silt	
	4				
	6				
	8				
14.0				Test pit terminated at 9.4 feet.	
	10				
	12				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-11

LOG OF TEST PIT NO. I-12

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **23.6**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
23.4	0			Topsoil +/- 3.0 Inches	
		FILL		Light brown and tan, moist, silty sand FILL, contains gravel	
				Light brown, moist, sandy lean clay FILL	
22.3		CL		Light gray and orange, moist, Lean CLAY	
	2				
19.6	4	SP-SM		Tan, moist, Poorly-graded SAND with Silt	
				Orange, light gray and tan, moist, Poorly-graded SAND with Silt	
	6				
	8				
14.0				Test pit terminated at 9.6 feet.	
	10				
	12				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-12

LOG OF TEST PIT NO. I-13

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **11/4/25**
DATE COMPLETED: **11/4/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **32.9**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil +/- 8.0 Inches	
32.2		FILL		Light brown, dry, Sandy Lean CLAY (possible fill)	
	2				
30.4		CL		Light gray and orange, moist, Lean CLAY with Sand, contains gravel	
	4			Light gray, moist, Sandy Lean CLAY, contains gravel	
27.4		SM		Light brown, moist, Silty SAND ,contains gravel	
	6				
				Orange, moist, Silty SAND, contains gravel	
	8				
23.1					
	10			Test pit terminated at 9.8 feet.	
	12				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-13

LOG OF TEST PIT NO. I-14

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **11/4/25**
DATE COMPLETED: **11/4/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **33.3**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
33.2	0	FILL		Topsoil +/- 1.0 Inch Light brown, dry, sandy lean clay FILL, contains rock fragments, asphalt and gravel	
31.3	2	CL		Light gray and orange, moist, Lean CLAY	
28.8	4	SC		Light gray and brown, moist, Clayey SAND	
26.3	6	SM		Orange, brown and tan, moist, Silty SAND, contains gravel and clay lenses	
23.0	8 10			Test pit terminated at 10.3 feet.	
	12				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
18 Boulden Circle, Suite 36
New Castle, DE 19720

LOG OF TEST PIT NO. I-14

LOG OF TEST PIT NO. I-15

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **11/4/25**
DATE COMPLETED: **11/4/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **32.5**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
32.4	0	FILL		Topsoil +/- 1.0 Inch Light brown, moist, sandy lean clay FILL	
29.5	2	CL		Light gray, orange and brown, moist, Lean CLAY	
27.5	4	SC		Light gray and brown, moist, Clayey SAND, contains gravel	
26.5	6	SM		Orange and brown, moist, Silty SAND, contains gravel and cobbles	
23.0	8			Test pit terminated at 9.5 feet.	
	10				
	12				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
18 Boulden Circle, Suite 36
New Castle, DE 19720

LOG OF TEST PIT NO. I-15

LOG OF TEST PIT NO. I-16

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/31/25**
DATE COMPLETED: **10/31/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **19.1**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil +/- 6.0 Inches	
18.6		CL		Light brown, dry, Sandy Lean CLAY, contains gravel Light gray and orange, moist, Sandy Lean CLAY	
17.6	1.5	SM		Orange and tan, moist, Silty SAND, contains gravel Same	
	3				
	4.5				
	6				
12.0				Test pit terminated at 7.1 feet.	
	7.5				
	9				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
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LOG OF TEST PIT NO. I-16

LOG OF TEST PIT NO. I-17

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/31/25**
DATE COMPLETED: **10/31/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **20.4**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil +/- 4.0 Inches	
20.1		FILL		Light brown, dry, sandy lean clay FILL	
19.4		CL		Light gray and orange, moist, Sandy Lean CLAY, contains gravel	
	1.5				
	3				
16.9		SM		Orange and tan, moist, Silty SAND, contains gravel	
	4.5				
	6				
	7.5				
12.0				Test pit terminated at 8.4 feet.	
	9				

NOTES: **Elevation and location should be considered approximate.**

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18 Boulden Circle, Suite 36
New Castle, DE 19720

LOG OF TEST PIT NO. I-17

LOG OF TEST PIT NO. I-18

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/31/25**
DATE COMPLETED: **10/31/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **21.7**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	DESCRIPTION	REMARKS
	0		Topsoil +/- 6.0 Inches	
21.2		FILL	Light brown, dry, sandy lean clay FILL	
20.7		SM	Orange and tan, moist, Silty SAND, contains gravel	
	2			
	4		Orange, moist, Silty SAND, contains gravel	
	6			
	8			
12.0			Test pit terminated at 9.7 feet.	
	10			
	12			

NOTES: **Elevation and location should be considered approximate.**

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New Castle, DE 19720

LOG OF TEST PIT NO. I-18

LOG OF TEST PIT NO. I-19

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/31/25**
DATE COMPLETED: **10/31/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **22.0**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
21.9	0	FILL		Topsoil +/- 1.0 Inch Light brown and orange, dry, sandy lean clay FILL, contains gravel	
19.0	2	SP-SM		Orange, moist, Poorly-graded SAND with Silt, contains gravel	
	4				
	6			Tan and orange, moist, Poorly-graded SAND with Silt	
	8				
12.0	10			Test pit terminated at 10.0 feet.	
	12				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
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New Castle, DE 19720

LOG OF TEST PIT NO. I-19

LOG OF TEST PIT NO. I-20

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **18.0**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
17.8	0			Topsoil +/- 3.0 Inches	
		FILL		Light brown and light gray, dry, Sandy Lean CLAY (possible fill)	
	1.5				
16.0		CL		Dark brown and light gray, moist, Sandy Lean CLAY	
	3				
	4.5				
12.0	6			Test pit terminated at 6.0 feet.	
	7.5				
	9				

NOTES: **Elevation and location should be considered approximate.**

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18 Boulden Circle, Suite 36
New Castle, DE 19720

LOG OF TEST PIT NO. I-20

LOG OF TEST PIT NO. I-21

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **20.0**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
19.9	0			Topsoil +/- 2.0 Inches	
		FILL		Light brown and gray, dry, Sandy Lean CLAY (possible fill)	
	1.5				
18.0		CL		Dark brown and gray, moist, Sandy Lean CLAY	
	3				
	4.5				
14.5		SM		Orange and tan, moist, Silty SAND, contains gravel	
	6				
	7.5				
12.0				Test pit terminated at 8.0 feet.	
	9				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
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New Castle, DE 19720

LOG OF TEST PIT NO. I-21

LOG OF TEST PIT NO. I-22

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **20.7**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
	0			Topsoil +/- 2.0 Inches	
20.5		CL		Light brown, dry, Sandy Lean CLAY (possible fill)	
	1.5				
	3				
16.7		SM		Light brown and orange, moist, Silty SAND, contains gravel	
	4.5			Orange and dark brown, moist, Silty SAND, contains gravel	
	6				
	7.5				
12.1				Test pit terminated at 8.6 feet.	
	9				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-22

LOG OF TEST PIT NO. I-23

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **21.3**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
21.1	0			Topsoil +/- 3.0 Inches	
		CL		Light brown, dry, Sandy Lean CLAY (possible fill)	
20.3		SM		Light brown, dry, Silty SAND, contains gravel	
	2			Same, dark brown	
	4	SM		Orange, brown and tan, moist, Silty SAND	
	6				
	8				
12.0				Test pit terminated at 9.3 feet.	
	10				
	12				

NOTES: **Elevation and location should be considered approximate.**

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New Castle, DE 19720

LOG OF TEST PIT NO. I-23

LOG OF TEST PIT NO. I-24

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/31/25**
DATE COMPLETED: **10/31/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **23.5**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
23.4	0	FILL		Topsoil +/- 1.0 Inch Light brown, dry, sandy lean clay FILL, contains gravel	
20.5	2.5	SM		Orange and light gray, moist, Silty SAND, contains gravel Tan and orange, moist, Silty SAND, contains clay lenses	
12.0	11.5			Test pit terminated at 11.5 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF TEST PIT NO. I-24

LOG OF TEST PIT NO. I-25

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **18.2**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
18.0	0			Topsoil +/- 3.0 Inches	
		CL		Light brown, dry, Sandy Lean CLAY (possible fill)	
	1.5			Light brown, dry, Sandy Lean CLAY, contains gravel	
15.2	3	SM		Orange, moist, Silty SAND, contains gravel	
	4.5				
	6				
12.0				Test pit terminated at 6.2 feet.	
	7.5				
	9				

NOTES: **Elevation and location should be considered approximate.**

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New Castle, DE 19720

LOG OF TEST PIT NO. I-25

LOG OF TEST PIT NO. I-26

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **20.2**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
20.0	0			Topsoil +/- 3.0 Inches	
		FILL		Light brown, dry, sandy lean clay FILL, contains brick, asphalt and rock fragments	
	1.5				
	3				
16.2		CL		Dark brown and gray, moist, Sandy Lean CLAY	
	4.5				
	6				
	7.5				
12.0				Test pit terminated at 8.2 feet.	
	9				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
18 Boulden Circle, Suite 36
New Castle, DE 19720

LOG OF TEST PIT NO. I-26

LOG OF TEST PIT NO. I-27

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

GROUNDWATER ENCOUNTERED: **Dry**
DATE STARTED: **10/29/25**
GROUND SURFACE ELEVATION: **20.9**
DATE COMPLETED: **10/29/25**
DATUM: **Topo**
CONTRACTOR: **Geo-Technology Associates, Inc.**
LOGGED BY: **R. Winnan**
EQUIPMENT: **Takeuchi TB290**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	DESCRIPTION	REMARKS
	0		Topsoil +/- 2.0 Inches	
20.7		CL	Light brown, dry, Sandy Lean CLAY, contains gravel (possible fill)	
	1.5			
	3			
			Orange and gray, moist, Sandy Lean CLAY	
	4.5			
15.9		SM	Gray and orange, moist, Silty SAND	
14.9	6	SP-SM	Orange and tan, moist, Poorly-graded SAND with Silt, contains gravel	
	7.5			
12.1	9		Test pit terminated at 8.8 feet.	

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
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New Castle, DE 19720

LOG OF TEST PIT NO. I-27

LOG OF TEST PIT NO. I-28

PROJECT: **William Penn High School**
PROJECT LOCATION: **New Castle County, Delaware**
CLIENT: **Colonial School District**

PROJECT NO.: **252599**

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
CONTRACTOR: **Geo-Technology Associates, Inc.**
EQUIPMENT: **Takeuchi TB290**

GROUNDWATER ENCOUNTERED: **Dry**
GROUND SURFACE ELEVATION: **21.7**
DATUM: **Topo**
LOGGED BY: **R. Winnan**
CHECKED BY: **M.McDonough**

ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
21.5	0			Topsoil +/- 2.0 Inches	
		CL		Light brown, dry, Sandy Lean CLAY, contains gravel (possible fill)	
	2				
	4			Orange and gray, moist, Sandy Lean CLAY	
16.7		SM		Orange, moist, Silty SAND	
15.7	6	SP-SM		Dark orange, moist, Poorly-graded SAND with Silt, contains gravel	
	8				
12.1				Test pit terminated at 9.6 feet.	
	10				
	12				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
18 Boulden Circle, Suite 36
New Castle, DE 19720

LOG OF TEST PIT NO. I-28

LOG OF BORING NO. B-1

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/29/25	10/29/25	
CAVED (ft):	In Augers	5.4	

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **20.0**
GROUND SURFACE ELEVATION: **26.1**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					26.1	0				
S-1	0.0	14	3-8-10-14	18	26.0		FILL		Topsoil/Grass +/- 1.0 Inch Tan and brown, dry, very stiff, Sandy Lean CLAY (possible fill)	
S-2	2.0	16	11-17-17-17	34	24.1		ML		Gray and tan, dry, hard, Sandy SILT	
S-3	4.0	19	3-5-11-10	16		4.5			Gray and orange, dry, very stiff, Sandy Lean CLAY	
S-4	6.0	17	8-11-11-15	22					Same	
S-5	8.0	19	3-8-7-7	15	18.1	9	SM		Orange, moist, medium dense, Silty SAND, contains gravel	
S-6	13.0	21	2-6-7-7	13		13.5			Orange, wet, medium dense, Silty SAND	
S-7	18.0	20	4-4-6-5	10		18			Orange, wet, loose, Silty SAND, contains gravel	
					6.1				Boring terminated at 20.0 feet.	▽
						22.5				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
18 Boulden Circle, Suite 36
New Castle, DE 19720

LOG OF BORING NO. B-1

LOG OF BORING NO. B-2

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/29/25	10/29/25	
CAVED (ft):	In Augers	5.0	

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **29.1**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					29.1	0			Topsoil/Grass +/- 2.0 Inches	
S-1	0.0	19	4-6-12-14	18	28.9		FILL		Light brown, dry, very stiff, Sandy SILT (possible fill)	
S-2	2.0	12	7-17-17-13	34					Brown and orange, dry, hard, Sandy SILT	
S-3	4.0	24	3-4-9-11	13		4.5			Same, tan and gray	
S-4	6.0	13	10-13-14-15	27					Same, dry	
S-5	8.0	16	3-8-19-17	27	21.1	9	SM		Tan and orange, moist, medium dense, Silty SAND, contains gravel and cobbles	
S-6	13.0	3	9-17-18-18	35		13.5			Same	
S-7	18.0	19	7-7-8-9	15		18			Tan, wet, medium dense, Silty SAND	
					9.1				Boring terminated at 20.0 feet.	
						22.5				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
18 Boulden Circle, Suite 36
New Castle, DE 19720

LOG OF BORING NO. B-2

LOG OF BORING NO. B-3

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/29/25	10/29/25	
CAVED (ft):	In Augers	8.4	

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **28.5**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					28.5	0				
S-1	0.0	16	2-6-13-18	19	28.3		FILL		Topsoil/Grass +/- 2.0 Inches Gray and brown, dry, very stiff, Lean CLAY (possible fill)	
S-2	2.0	18	12-18-18-18	36	26.5		CL		Tan and orange, dry, hard, Lean CLAY	
S-3	4.0	16	4-7-8-7	15		4.5			Brown and orange, dry, stiff, Lean CLAY	
S-4	6.0	19	7-10-10-10	20	22.5				Orange and tan, dry, very stiff, Lean CLAY	
S-5	8.0	20	3-7-7-8	14		9	SM		Orange, moist, medium dense, Silty SAND	
S-6	13.0	20	5-4-5-6	9		13.5			Orange, moist, loose, Silty SAND	
S-7	18.0	19	5-6-9-11	15		18			Orange and tan, wet, medium dense, Silty SAND, contains gravel	
					8.5				Boring terminated at 20.0 feet.	
						22.5				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
18 Boulden Circle, Suite 36
New Castle, DE 19720

LOG OF BORING NO. B-3

LOG OF BORING NO. B-4

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	26.2	Dry	BOC
DATE:	11/4/25	11/4/25	
CAVED (ft):	In Augers	9.2	

DATE STARTED: **11/4/25**
DATE COMPLETED: **11/4/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **18.2**
GROUND SURFACE ELEVATION: **21.3**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					21.3	0			Topsoil/Grass +/- 5.0 Inches	
S-1	0.0	15	2-3-6-8	9	20.9		FILL		Brown and gray, dry, stiff, sandy lean clay FILL, contains gravel	
S-2	2.0	17	8-10-12-10	22	19.3		SM		Orange and tan, moist, medium dense, Silty SAND, contains gravel	
S-3	4.0	24	3-8-9-11	17	17.3		SC		Brown and tan, moist, medium dense, Clayey SAND	
S-4	6.0	17	8-9-10-10	19	15.3	5.5	SM		Orange and tan, moist, medium dense, Silty SAND	
S-5	8.0	19	11-13-11-11	24					Orange, moist, medium dense, Silty SAND	
						11				
S-6	13.0	18	5-5-4-4	9			SM		Red and orange, wet, loose, Silty SAND	Perched water observed at 13.0 feet
						16.5				
S-7	18.0	16	3-3-5-6	8	3.3		CL		Gray, moist, medium stiff, Lean CLAY	
						22				
S-8	23.0	14	4-5-7-9	12	-1.7		ML		Gray, wet, stiff, SILT with Sand	
						27.5			Same	
S-9	28.0	13	5-6-8-10	14						
					-8.7				Boring terminated at 30.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
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LOG OF BORING NO. B-4

LOG OF BORING NO. B-5

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	11/4/25	11/4/25	
CAVED (ft):	In Augers	6.5	

DATE STARTED: **11/4/25**
DATE COMPLETED: **11/4/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **14.3**
GROUND SURFACE ELEVATION: **22.6**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					22.6	0				
S-1	0.0	13	2-3-6-10	9	22.4		FILL		Topsoil/Grass +/- 3.0 Inches Brown and gray, dry, stiff, sandy lean clay FILL	
S-2	2.0	18	6-10-15-21	25					Brown and gray, dry, very stiff, sandy lean clay FILL, contains gravel	
S-3	4.0	17	5-11-8-6	19	18.6		SM		Orange and brown, moist, medium dense, Silty SAND	
						5.5				
S-4	6.0	18	5-5-5-5	10					Orange and tan, moist, loose, Silty SAND	
S-5	8.0	10	3-4-5-5	9					Same, orange	
						11				
S-6	13.0	7	3-4-4-3	8					Orange and brown, wet, loose, Silty SAND, contains gravel	Perched water observed at 14.0 feet
						16.5				
S-7	18.0	14	1-2-2-6	4	4.6		ML		Orange and brown, wet, soft, Sandy SILT, contains gravel	
						22				
S-8	23.0	2	4-5-6-7	11					Same	
						27.5				
S-9	28.0	16	5-6-10-12	16	-5.4		CL		Gray, moist, very stiff, Sandy Lean CLAY	
					-7.4				Boring terminated at 30.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-5

LOG OF BORING NO. B-6

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	11/4/25	11/4/25	
CAVED (ft):	In Augers	25.2	

DATE STARTED: **11/4/25**
DATE COMPLETED: **11/4/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **21.7**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					21.7	0				
S-1	0.0	18	1-4-7-10	11	21.4		FILL		Topsoil/Grass +/- 4.0 Inches Orange and gray, dry, stiff, Sandy Lean CLAY (possible fill)	
S-2	2.0	15	12-21-22-13	43	19.7		SM		Tan, moist, dense, Silty SAND	
S-3	4.0	22	4-7-8-9	15					Red, moist, medium dense, Silty SAND	
						5.5				
S-4	6.0	19	6-8-8-10	16					Same	
S-5	8.0	21	6-6-7-9	13					Same, wet, contains gravel	
						11				
S-6	13.0	17	3-2-3-4	5	8.7		CL		Red and gray, moist, medium stiff, Lean CLAY	
						16.5				
S-7	18.0	21	3-4-6-6	10	3.7		ML		Orange and tan, moist, stiff, Sandy SILT	
						22				
S-8	23.0	22	4-5-8-9	13					Same, red and brown	
						27.5				
S-9	28.0	20	3-4-6-6	10	-6.3		CL		Red and gray, moist, stiff, Sandy Lean CLAY	
					-8.3				Boring terminated at 30.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-6

LOG OF BORING NO. B-7

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	18.4	Dry	BOC
DATE:	11/4/25	11/4/25	
CAVED (ft):	In Augers	5.0	

DATE STARTED: **11/4/25**
DATE COMPLETED: **11/4/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **13.0**
GROUND SURFACE ELEVATION: **20.7**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					20.7	0				
S-1	0.0	14	1-4-10-15	14	20.5		FILL		Topsoil/Grass +/- 3.0 Inches Brown, dry, stiff, sandy lean clay FILL	
S-2	2.0	5	7-29-26-18	55					Orange and brown, dry, hard, sandy lean clay FILL, contains gravel	
S-3	4.0	16	6-7-10-11	17	16.7		SM		Orange and brown, moist, medium dense, Silty SAND, contains gravel	
						5.5				
S-4	6.0	17	9-12-15-18	27					Same	
S-5	8.0	14	17-22-18-18	40					Orange and tan, moist, dense, Silty SAND	
						11				
S-6	13.0	14	6-7-8-10	15					Brown, wet, medium dense, Silty SAND, contains gravel	Perched water observed at 13.0 feet
						16.5				
S-7	18.0	11	1-4-8-9	12	2.7		CL		Red, wet, stiff, Lean CLAY	
						22				
S-8	23.0	24	4-8-13-14	21	-2.3		SM		Orange, wet, medium dense, Silty SAND, contains gravel	
						27.5				
S-9	28.0	19	5-8-10-10	18					Same	
					-9.3				Boring terminated at 30.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-7

LOG OF BORING NO. B-8

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	11/4/25	11/4/25	
CAVED (ft):	In Augers	8.2	

DATE STARTED: **11/4/25**
DATE COMPLETED: **11/4/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **14.0**
GROUND SURFACE ELEVATION: **22.1**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					22.1	0				
S-1	0.0	19	2-5-6-9	11	22.0		FILL		Topsoil +/- 1.0 Inch Brown and gray, moist, stiff, sandy lean clay FILL, contains gravel	
S-2	2.0	17	5-7-11-7	18	20.1		SM		Orange, moist, medium dense, Silty SAND, contains gravel	
S-3	4.0	19	2-3-3-2	6					Orange and tan, moist, loose, Silty SAND, contains gravel	
S-4	6.0	20	2-7-9-6	16		5.5			Same, medium dense	
S-5	8.0	4	3-5-6-5	11					Orange and brown, moist, medium dense, Silty SAND	
						11				
S-6	13.0	16	1-3-3-4	6					Orange, wet, loose, Silty SAND	Perched water observed at 14.0 feet
						16.5				
S-7	18.0	1	2-3-4-5	7					Red and orange, wet, loose, Silty SAND, contains gravel	
						22				
S-8	23.0	5	4-5-9-8	14					Red and brown, wet, medium dense, Silty SAND, contains gravel	
						27.5				
S-9	28.0	24	3-6-9-11	15	-5.9		CL		Red and gray, moist, stiff, Sandy Lean CLAY	
					-7.9				Boring terminated at 30.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-8

LOG OF BORING NO. B-9

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	18.3	11.8	BOC
DATE:	11/3/25	11/3/25	
CAVED (ft):	In Augers	12.0	

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **14.2**
GROUND SURFACE ELEVATION: **16.3**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					16.3	0			Topsoil/Grass +/- 2.0 Inches	
S-1	0.0	12	3-6-7-9	13	16.1		FILL		Brown and gray, dry, stiff, Sandy Lean CLAY, contains gravel (possible fill)	
S-2	2.0	15	6-10-10-7	20					Brown and orange, dry, very stiff, Sandy Lean CLAY (possible fill)	
S-3	4.0	16	5-12-8-7	20	12.3	5.5	SM		Gray and orange, moist, medium dense, Silty SAND, contains gravel and clay clods	
S-4	6.0	2	2-4-6-7	10					Same	
S-5	8.0	14	2-4-4-5	8	8.3		CL		Gray, moist, medium stiff, Lean CLAY	
						11				▽
S-6	13.0	24	5-6-9-9	15	3.3		SM		Orange and brown, wet, medium dense, Silty SAND	▽
						16.5				
S-7	18.0	24	6-8-13-14	21					Same, tan	▽
						22				
S-8	23.0	24	5-8-9-9	17					Red and orange, moist, medium dense, Silty SAND	
						27.5				
S-9	28.0	24	4-8-12-11	20					Same, contains clay clods	
					-13.7				Boring terminated at 30.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-9

LOG OF BORING NO. B-10

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	24.0	Dry	BOC
DATE:	11/3/24	11/3/24	
CAVED (ft):	In Augers	9.4	

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **14.0**
GROUND SURFACE ELEVATION: **20.3**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					20.3	0				
S-1	0.0	17	1-3-6-8	9	20.1		FILL		Topsoil/Grass +/- 3.0 Inches Brown, dry, stiff, Sandy Lean CLAY, contains gravel (possible fill)	
S-2	2.0	9	4-8-9-9	17					Brown, dry, very stiff, sandy lean clay FILL, contains gravel	
S-3	4.0	18	4-5-5-5	10	16.3	5.5	CL		Orange, moist, stiff, Lean Clay, contains gravel Red and orange, moist, stiff, Sandy Lean CLAY	
S-4	6.0	15	5-6-6-5	12						
S-5	8.0	22	4-6-5-6	11	12.3	11	ML		Orange and tan, moist, stiff, Sandy SILT	
S-6	13.0	17	3-8-8-10	16					Orange, wet, stiff, Sandy SILT	▽
						16.5				
S-7	18.0	16	1-2-3-5	5	2.3		CL		Orange, moist to wet, medium stiff, Lean CLAY	Perched water observed at 14.0 feet
S-8	23.0	18	2-4-5-5	9		22			Orange, moist, stiff, Lean CLAY	▽
S-9	28.0	24	6-8-8-9	16		27.5			Gray and orange, moist, very stiff, Sandy Lean CLAY	
					-9.7				Boring terminated at 30.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-10

LOG OF BORING NO. B-11

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	23.9	Dry	BOC
DATE:	11/3/24	11/3/24	
CAVED (ft):	In Augers	3.8	

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **17.0**
GROUND SURFACE ELEVATION: **21.9**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					21.9	0			Topsoil/Grass +/- 4.0 Inches	
S-1	0.0	18	1-3-5-7	8	21.6		FILL		Brown and gray, dry, medium stiff, Lean CLAY, contains gravel (possible fill)	
S-2	2.0	17	3-9-10-11	19	19.9		CL		Orange and gray, dry, very stiff, Lean CLAY	
S-3	4.0	20	3-7-11-12	18					Gray and orange, moist, very stiff, Lean Clay	
S-4	6.0	13	7-9-13-15	22		5.5			Gray, moist, very stiff, Sandy Lean CLAY	
S-5	8.0	3	9-13-15-14	28	13.9		SM		Orange and brown, moist, medium dense, Silty SAND, contains gravel (gravel or cobbles blocking spoon)	
						11				
S-6	13.0	5	9-10-13-13	23					Same	
						16.5				▽
S-7	18.0	17	2-3-5-5	8	3.9		CL		Gray and orange, moist, medium stiff, Sandy Lean CLAY	Perched water observed at 17.0 feet
						22				
S-8	23.0	18	1-6-6-5	12	-1.1		SM		Tan and orange, wet, medium dense, Silty SAND	▽
						27.5				
S-9	28.0	24	4-8-7-5	15	-6.1		SC		Red and orange, wet, medium dense, Clayey SAND, contains gravel	
					-8.1				Boring terminated at 30.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-11

LOG OF BORING NO. B-12

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/31/25	10/31/25	
CAVED (ft):	In Augers	2.5	

DATE STARTED: **10/31/25**
DATE COMPLETED: **10/31/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **10.0**
GROUND SURFACE ELEVATION: **20.6**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					20.6	0				
S-1	0.0	14	1-3-11-20	14	20.4		FILL		Topsoil/Grass +/- 2.0 Inches Brown, dry, stiff, Sandy Lean CLAY (possible fill)	
S-2	2.0	14	12-12-12-12	24	18.6		CL		Gray and orange, dry, very stiff, Sandy Lean CLAY	
S-3	4.0	19	2-6-7-9	13		4.5			Gray and orange, moist, stiff, Sandy Lean CLAY	
S-4	6.0	20	9-8-9-11	17					Same, very stiff	
S-5	8.0	14	4-4-8-5	12	12.6	9	SM		Orange and gray, moist to wet, medium dense, Silty SAND, contains gravel	▽
S-6	13.0	18	1-3-2-3	5	7.6	13.5	CL		Red and gray, moist, medium stiff, Lean CLAY	Perched water observed at 10.0 feet
S-7	18.0	16	4-4-5-6	9		18			Same	
					0.6				Boring terminated at 20.0 feet.	
						22.5				

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
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LOG OF BORING NO. B-12

LOG OF BORING NO. B-13

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/31/25	10/31/25	
CAVED (ft):	In Augers	5.0	

DATE STARTED: **10/31/25**
DATE COMPLETED: **10/31/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **10.0**
GROUND SURFACE ELEVATION: **20.2**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					20.2	0				
S-1	0.0	17	1-2-6-7	8	20.0		FILL		Topsoil/Grass +/- 2.0 Inches Brown and gray, dry, medium stiff, sandy lean clay FILL	
S-2	2.0	10	3-7-8-8	15	18.2		CL		Gray and brown, dry, medium stiff, Sandy Lean CLAY	
S-3	4.0	22	2-3-5-7	8		4.5			Gray and orange, moist, medium stiff, Sandy Lean CLAY	
S-4	6.0	19	5-7-8-8	15					Same	
S-5	8.0	18	4-4-6-7	10	12.2	9	SM		Gray and orange, wet, loose, Silty SAND	▽
S-6	13.0	20	3-8-13-11	21		13.5			Orange and tan, wet, medium dense, Silty SAND	Perched water observed at 10.0 feet
S-7	18.0	17	4-6-5-7	11		18			Gray, wet, medium dense, Silty SAND	
					0.2				Boring terminated at 20.0 feet.	
						22.5				

NOTES: **Elevation and location should be considered approximate.**

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New Castle, DE 19720

LOG OF BORING NO. B-13

LOG OF BORING NO. B-14

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/31/25	10/31/25	
CAVED (ft):	In Augers	6.0	

DATE STARTED: **10/31/25**
DATE COMPLETED: **10/31/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **10.0**
GROUND SURFACE ELEVATION: **19.2**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					19.2	0				
S-1	0.0	17	2-6-12-12	18	19.0		FILL		Topsoil/Grass +/- 2.0 Inches Brown and gray, dry, very stiff, sandy lean clay FILL	
S-2	2.0	14	8-12-10-10	22	17.2		ML		Orange and gray, moist, very stiff, Sandy SILT (possible fill)	
S-3	4.0	19	2-5-7-9	12	15.2	4.5	CL		Gray and orange, moist, stiff, Sandy Lean CLAY	
S-4	6.0	17	7-10-11-15	21					Orange and gray, moist, very stiff, Lean CLAY	
S-5	8.0	14	3-4-8-12	12	11.2	9	SM		Gray, wet, medium dense, Silty SAND, contains gravel and cobbles	▽
S-6	13.0	16	2-3-5-5	8	6.2	13.5	CL		Gray, moist, medium stiff, Sandy Lean CLAY	Perched water observed at 10.0 feet
S-7	18.0	15	1-2-3-3	5		18			Same	
					-0.8				Boring terminated at 20.0 feet.	
						22.5				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-14

LOG OF BORING NO. B-15

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/31/25	10/31/25	
CAVED (ft):	In Augers	7.8	

DATE STARTED: **10/31/25**
DATE COMPLETED: **10/31/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **28.4**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					28.4	0				
S-1	0.0	18	3-5-11-13	16	28.2		FILL		Topsoil/Grass +/- 3.0 Inches Brown and tan, dry, very stiff, Sandy Lean CLAY (possible fill)	
S-2	2.0	14	5-15-16-14	31					Gray and brown, dry, hard, Sandy Lean CLAY (possible fill)	
					24.4	4.5	CL			
S-3	4.0	21	2-5-8-9	13					Gray and orange, moist, stiff, Sandy Lean CLAY	
S-4	6.0	16	8-9-11-12	20					Gray, moist, very stiff, Sandy Lean CLAY	
					20.4	9	SM			
S-5	8.0	24	4-6-6-8	12					Orange and tan, moist, medium dense, Silty SAND	
S-6	13.0	17	3-7-7-7	14		13.5			Same	
S-7	18.0	24	5-7-7-9	14		18			Orange, moist, medium dense, Silty SAND	
					8.4				Boring terminated at 20.0 feet.	
						22.5				

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-15

LOG OF BORING NO. B-16

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/29/25	10/29/25	
CAVED (ft):	In Augers	8.2	

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **36.7**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					36.7	0				
S-1	0.0	4	4-11-16-18	27	36.5		FILL		Topsoil/Grass +/- 3.0 Inches Brown, dry, medium dense, Silty SAND (possible fill)	
S-2	2.0	3	8-14-24-24	38	34.7	3	CL		Brown, dry, hard, Sandy Lean CLAY, contains gravel	
S-3	4.0	24	5-6-10-13	16					Gray, dry, very stiff, Sandy Lean CLAY	
S-4	6.0	15	11-18-18-13	36	30.7	6	SM		Orange and tan, moist, dense, Silty SAND, contains gravel (cemented)	
S-5	8.0	24	4-6-6-6	12		9			Orange, moist, medium dense, Silty SAND	
						12				
S-6	13.0	19	6-8-7-6	15					Orange, moist, medium dense, Silty SAND	
					21.7	15			Boring terminated at 15.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-16

LOG OF BORING NO. B-17

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	11/3/24	11/3/24	
CAVED (ft):	In Augers	11.5	

DATE STARTED: **11/3/25**
DATE COMPLETED: **11/3/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **34.2**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					34.2	0				
S-1	0.0	18	4-8-11-11	19	33.8		FILL		Topsoil/Grass +/- 5.0 Inches Brown and gray, dry, very stiff, sandy lean clay FILL, contains gravel	
S-2	2.0	13	6-8-13-10	21					Dark brown, dry, very stiff, sandy lean clay FILL	
S-3	4.0	21	3-3-6-9	9	30.2	5.5	CL		Brown and orange, dry, stiff, Sandy Lean CLAY	
S-4	6.0	20	11-14-16-16	30	28.2		SM		Brown and orange, moist, medium dense, Silty SAND, contains gravel	
S-5	8.0	24	3-4-4-4	8					Orange, moist, loose, Silty SAND	
						11				
S-6	13.0	20	5-5-5-5	10					Orange and tan, moist, loose, Silty SAND	
						16.5				
S-7	18.0	24	2-5-6-6	11					Orange and tan, moist, medium dense, Silty SAND	
						22				
S-8	23.0	18	3-5-5-4	10					Red and orange, moist, loose, Silty SAND	
						27.5				
S-9	28.0	20	1-6-7-7	13					Orange and tan, moist, medium dense, Silty SAND	
					4.2				Boring terminated at 30.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. B-17

LOG OF BORING NO. S-1

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/29/25	10/29/25	
CAVED (ft):	In Augers	1.5	

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **18.5**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					18.5	0			Topsoil/Grass +/- 2.0 Inches	
S-1	0.0	17	6-12-12-14	24	18.3		FILL		Orange and tan, dry, medium dense, Silty SAND, contains gravel (possible fill)	
S-2	2.0	16	10-10-8-6	18	16.5	2	SM		Orange, dry, medium dense, Silty SAND	
S-3	4.0	19	2-4-4-5	8	14.5	4	ML		Dark orange, dry, loose, Sandy SILLT	
S-4	6.0	16	7-6-6-7	12		6			Orange, moist, medium dense, Sandy SILT, contains gravel	
S-5	8.0	13	7-14-14-11	28	10.5	8	SM		Orange, moist, medium dense, Silty SAND	
					8.5	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. S-1

LOG OF BORING NO. S-2

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/29/25	10/29/25	
CAVED (ft):	In Augers	1.9	

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **29.3**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					29.3	0			Topsoil/Grass +/- 1.0 Inch	
S-1	0.0	18	2-6-8-10	14	29.2		FILL		Tan and brown, dry, stiff, Sandy Lean CLAY (possible fill)	
					27.3	2	CL		Tan and orange, moist, very stiff, Sandy Lean CLAY, contains gravel	
S-2	2.0	14	10-12-13-15	25						
						4			Tan and orange, moist, very stiff, Sandy Lean CLAY, contains gravel	
S-3	4.0	24	4-8-10-14	18						
						6			Orange and gray, moist, hard, Sandy Lean CLAY	
S-4	6.0	22	15-15-16-17	31						
					21.3	8	SC		Orange, moist, medium dense, Clayey SAND	
S-5	8.0	24	12-14-13-9	27						
					19.3	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. S-2

LOG OF BORING NO. S-3

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/28/25	10/28/25	
CAVED (ft):	In Augers	2.0	

DATE STARTED: **10/28/25**
DATE COMPLETED: **10/28/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **29.6**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					29.6	0			Topsoil/Grass +/- 3.0 Inches	
S-1	0.0	12	4-13-14-15	27	29.4		SM		Tan, dry, medium dense, Silty SAND, contains gravel	
					27.6	2	ML		Tan, dry, very stiff, Sandy SILT	
S-2	2.0	15	7-12-15-16	27						
						4			Orange, dry, stiff, Sandy SILT, contains gravel	
S-3	4.0	5	2-6-8-13	14						
					23.6	6	CL		Gray and orange, moist, hard, Sandy Lean CLAY	
S-4	6.0	24	14-18-18-16	36						
						8			Same, very stiff	
S-5	8.0	24	17-14-8-9	22						
					19.6	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. S-3

LOG OF BORING NO. S-4

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/28/25	10/28/25	
CAVED (ft):	In Augers	3.0	

DATE STARTED: **10/28/25**
DATE COMPLETED: **10/28/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **31.6**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					31.6	0			Asphalt +/- 4.0 Inches Stonebase +/- 4.0 Inches	
S-1	0.0	12	4-7-9	16	30.9		ML		Dark gray, dry, stiff, Sandy SILT	
S-2	2.0	14	7-7-5-5	12		2			Same	
S-3	4.0	24	1-1-2-3	3		4			Gray, moist, soft, Sandy SILT	
S-4	6.0	22	7-8-11-12	19		6			Gray and brown, moist, medium stiff, Sandy SILT	
S-5	8.0	24	13-15-16-13	31		8			Brown and gray, moist, hard, Sandy SILT	
					21.6	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. S-4

LOG OF BORING NO. S-5

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/28/25	10/28/25	
CAVED (ft):	In Augers	2.7	

DATE STARTED: **10/28/25**
DATE COMPLETED: **10/28/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **30.3**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					30.3	0			Asphalt +/- 4.0 Inches Stonebase +/- 3.0 Inches	
					29.7					
S-1	0.0	15	4-7-6	13			ML		Orange and gray, dry, stiff, Sandy SILT	
						2			Same	
S-2	2.0	11	2-5-6-7	11						
						4			Same	
S-3	4.0	22	3-6-8-10	14						
					24.3	6	CL-ML		Orange and gray, moist, very stiff, Silt with CLAY	
S-4	6.0	24	10-10-11-11	21						
						8			Same	
S-5	8.0	24	10-10-12-8	22						
					20.3	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. S-5

LOG OF BORING NO. S-6

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/28/25	10/28/25	
CAVED (ft):	In Augers	2.4	

DATE STARTED: **10/28/25**
DATE COMPLETED: **10/28/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **33.0**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					33.0	0			Topsoil/Grass +/- 2.0 Inches	
S-1	0.0	17	2-8-12-9	20						
					31.0	2	CL		Gray and orange, moist, stiff, Sandy Lean CLAY	
S-2	2.0	15	6-6-9-9	15						
						4			Same	
S-3	4.0	20	2-5-8-10	13						
						6			Same, very dense	
S-4	6.0	24	9-9-12-11	21						
					25.0	8	ML		Gray and orange, moist, very stiff, SILT with sand lenses	
S-5	8.0	21	13-11-10-7	21						
					23.0	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. S-6

LOG OF BORING NO. S-8

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/28/25	10/28/25	
CAVED (ft):	In Augers	1.9	

DATE STARTED: **10/28/25**
DATE COMPLETED: **10/28/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **34.0**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					34.0	0			Topsoil/Grass +/- 3.0 Inches	
					33.8		FILL		Orange and brown, dry, dense, Silty SAND (possible fill)	
S-1	0.0	13	8-15-23-21	38						
						2			Same	
S-2	2.0	17	12-18-24-18	42						
					30.0	4	SM		Brown and tan, moist, medium dense, Silty SAND	
S-3	4.0	19	5-8-14-12	22						
						6			Same	
S-4	6.0	24	11-11-12-9	23						
						8			Same, orange	
S-5	8.0	20	7-7-7-7	14						
					24.0	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. S-8

LOG OF BORING NO. S-9

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/28/25	10/28/25	
CAVED (ft):	In Augers	2.0	

DATE STARTED: **10/28/25**
DATE COMPLETED: **10/28/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **34.7**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					34.7	0			Asphalt +/- 4.0 Inches Stonebase +/- 7.0 Inches	
					33.8		CL		Gray and orange, dry, Sandy Lean CLAY	Hand Sample
S-1	2.0	24	3-5-7-8	12		2			Same	
S-2	4.0	24	2-3-5-5	8		4			Gray and orange, moist, medium stiff, Sandy Lean CLAY	
					28.7	6	SM		Gray and orange, moist, medium dense, Silty SAND	
S-3	6.0	19	6-6-7-8	13						
S-4	8.0	22	7-8-8-8	16		8			Tan, moist, medium dense, Silty SAND	
					24.7	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. S-9

LOG OF BORING NO. S-10

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/28/25	10/28/25	
CAVED (ft):	In Augers	2.3	

DATE STARTED: **10/28/25**
DATE COMPLETED: **10/28/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **35.1**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					35.1	0			Topsoil/Grass +/- 3.0 Inches	
					34.9		ML		Tan and orange, dry, stiff, Sandy SILT	
S-1	0.0	17	3-4-5-8	9						
						2			Same	
S-2	2.0	18	8-11-13-13	24						
						4			Same	
S-3	4.0	22	4-5-8-8	13						
						6			Gray and orange, moist to wet, SILT with Sand	
S-4	6.0	21	8-9-9-6	18						
						8			Same, wet	
S-5	8.0	24	4-4-4-4	8						
					25.1	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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New Castle, DE 19720

LOG OF BORING NO. S-10

LOG OF BORING NO. S-12

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/31/25	10/31/25	
CAVED (ft):	In Augers	3.8	

DATE STARTED: **10/31/25**
DATE COMPLETED: **10/31/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **27.0**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					27.0	0			Asphalt +/- 12.0 Inches Stonebase +/- 6.0 Inches	
S-1					25.7		FILL		Brown and gray, moist, clayey sand FILL, contains gravel	Hand Sample
S-2	2.0	10	6-8-16-18	24	25.0	2	CL		Gray and orange, moist, very stiff, Sandy Lean CLAY	
S-3	4.0	17	3-10-13-14	23	23.0	4	SC		Gray and orange, moist, medium dense, Clayey SAND	
S-4	6.0	15	12-24-18-19	42		6			Orange and brown, moist, dense, Clayey SAND, contains gravel	
S-5	8.0	15	12-12-10-8	22	19.0	8	SM		Orange, moist, medium dense, Silty SAND	
					17.0	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

GEO-TECHNOLOGY ASSOCIATES, INC.
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New Castle, DE 19720

LOG OF BORING NO. S-12

LOG OF BORING NO. S-13

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/28/25	10/28/25	
CAVED (ft):	In Augers	1.8	

DATE STARTED: **10/28/25**
DATE COMPLETED: **10/28/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **21.3**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					21.3	0			Topsoil/Grass +/- 2.0 Inches	
S-1	0.0	15	3-9-14-13	23	21.1		CL		Brown, dry, very stiff, Lean CLAY	
S-2	2.0	14	5-15-15-21	30		2			Same, gray and brown	
S-3	4.0	19	4-8-11-14	19		4			Gray and orange, moist, very stiff, Lean CLAY	
S-4	6.0	20	15-18-18-16	36	15.3	6	SM		Orange and gray, moist, dense, Silty SAND	
S-5	8.0	18	13-11-8-8	19		8			Orange and gray, wet, medium dense, Silty SAND	
					11.3	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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New Castle, DE 19720

LOG OF BORING NO. S-13

LOG OF BORING NO. S-14

PROJECT: **William Penn High School**
PROJECT NO.: **252599**
PROJECT LOCATION: **New Castle County, Delaware**

WATER LEVEL (ft):	Dry	Dry	BOC
DATE:	10/29/25	10/29/25	
CAVED (ft):	In Augers	1.5	

DATE STARTED: **10/29/25**
DATE COMPLETED: **10/29/25**
DRILLING CONTRACTOR: **Geo-Technology Associates, Inc.**
DRILLER: **D. Hans, Jr.**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **Split Spoon**

WATER ENCOUNTERED DURING DRILLING (ft) **Dry**
GROUND SURFACE ELEVATION: **23.2**
DATUM: **Topo**
EQUIPMENT: **Diedrich D50**
LOGGED BY: **A. Kellmeyer**
CHECKED BY: **M.McDonough**

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	N (blows/ft.)	ELEVATION (ft.)	DEPTH (ft.)	USCS	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					23.2	0			Topsoil/Grass +/- 1.0 Inch	
S-1	0.0	13	3-7-7-9	14	23.1		FILL		Brown, dry, medium stiff, Sandy Lean CLAY (possible fill)	
S-2	2.0	15	6-11-14-15	25	21.2	2	CL		Gray and orange, dry, very stiff, Sandy Lean CLAY	
S-3	4.0	19	7-12-14-15	26		4			Gray and orange, dry, very stiff, Sandy Lean CLAY	
S-4	6.0	14	13-14-24-18	38	17.2	6	SM		Gray and orange, moist, dense, Silty SAND	
S-5	8.0	19	14-11-9-9	20		8			Orange, moist, medium dense, Silty SAND	
					13.2	10			Boring terminated at 10.0 feet.	

NOTES: **Elevation and location should be considered approximate.**

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LOG OF BORING NO. S-14

APPENDIX C

Soil Map—New Castle County, Delaware



Map Scale: 1:5,430 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: New Castle County, Delaware
Survey Area Data: Version 20, Sep 9, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 5, 2022—Jul 4, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MuB	Mattapex-Urban land complex, 0 to 5 percent slopes	38.0	50.7%
ReB	Reybold silt loam, 2 to 5 percent slopes	0.2	0.2%
UzC	Udorthents, 0 to 10 percent slopes	36.6	48.8%
WoaB	Woodstown loam, 2 to 5 percent slopes, Northern Coastal Plain	0.2	0.3%
Totals for Area of Interest		**75.0**	**100.0%**

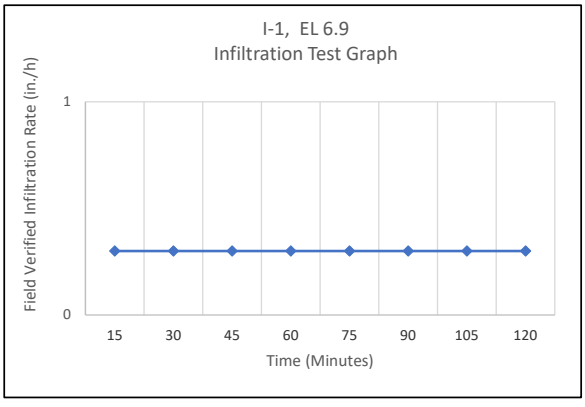
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements | Date: 10/27/2025 | Employee Name: M. McDonough
Job No.: 252599 | Weather: Sunny/60° | Site Location: New Castle County, Delaware

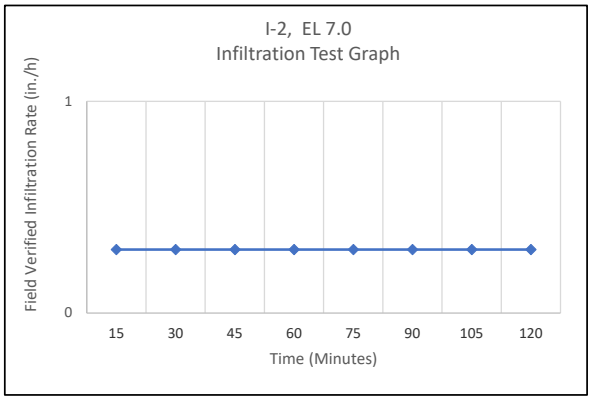
Location		I-1		
Test Depth/Elevation		8.0 FT/ EL 6.9		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:30	S	6	--	--
9:45	E	5 15/16	1/16	1/4
9:45	S	5 15/16	--	--
10:00	E	5 14/16	1/16	1/4
10:00	S	5 14/16	--	--
10:15	E	5 13/16	1/16	1/4
10:15	S	5 13/16	--	--
10:30	E	5 12/16	1/16	1/4
10:30	S	5 12/16	--	--
10:45	E	6	1/16	1/4
10:45	S	5 15/16	--	--
11:00	E	5 15/16	1/16	1/4
11:00	S	5 14/16	--	--
11:15	E	5 14/16	1/16	1/4
11:15	S	5 13/16	--	--
11:30	E	5 13/16	1/16	1/4

Location		I-2		
Test Depth		9.0 FT/ EL 7.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:40	S	0	--	--
9:55	E	0	0	0
9:55	S	0	--	--
10:10	E	0	0	0
10:10	S	0	--	--
10:25	E	0	0	0
10:25	S	0	--	--
10:40	E	0	0	0

Sandy SILT (ML)



Lean CLAY (CL)



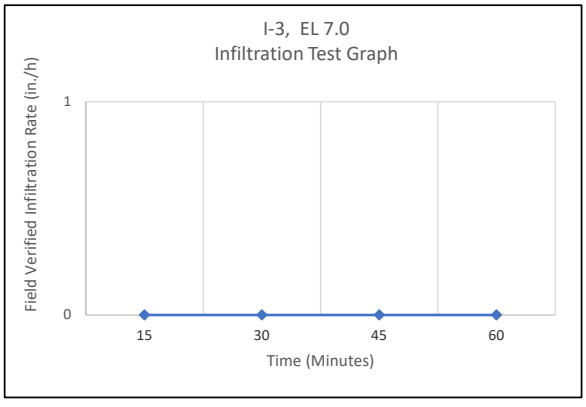
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements Date: 10/27/2025 Employee Name: M. McDonough
Job No.: 252599 Weather: Sunny/60° Site Location: New Castle County, Delaware

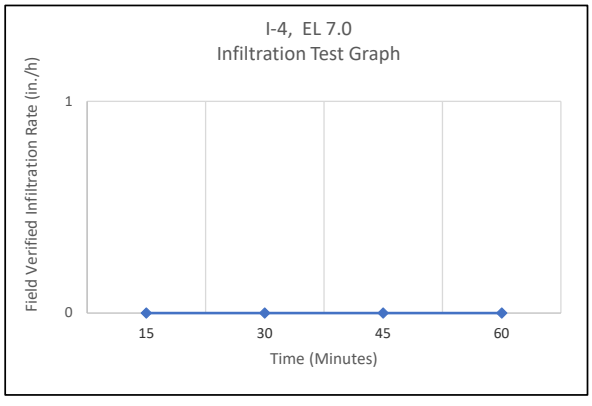
Location		I-3		
Test Depth/Elevation		8.2 FT/ EL 7.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
1:45	S	0	--	--
2:00	E	0	0	0.0
2:00	S	0	--	--
2:15	E	0	0	0.0
2:15	S	0	--	--
2:30	E	0	0	0.0
2:30	S	0	--	--
2:45	E	0	0	0.0

Location		I-4		
Test Depth/Elevation		8.6 FT/ EL 7.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:59	S	0	--	--
10:14	E	0	0	0
10:14	S	0	--	--
10:29	E	0	0	0
10:29	S	0	--	--
10:44	E	0	0	0
10:44	S	0	--	--
10:59	E	0	0	0

Lean CLAY (CL)



Lean CLAY (CL)



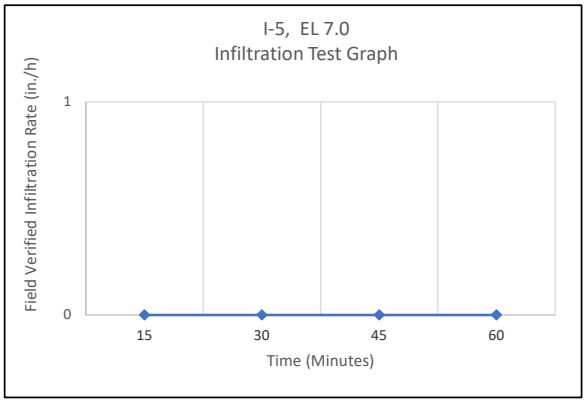
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements Date: 10/27/2025 Employee Name: A. Kellmyer/R. Winnan
Job No.: 252599 Weather: Sunny/60° Site Location: New Castle County, Delaware

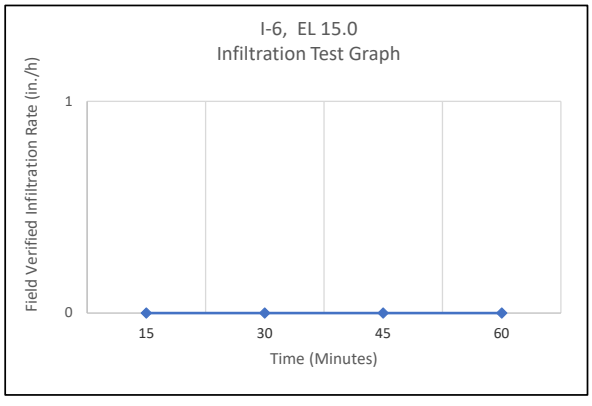
Location		I-5		
Test Depth/Elevation		7.7 FT/ EL 7.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
1:45	S	0	--	--
2:00	E	0	0	0.0
2:00	S	0	--	--
2:15	E	0	0	0.0
2:15	S	0	--	--
2:30	E	0	0	0.0
2:30	S	0	--	--
2:45	E	0	0	0.0

Location		I-6		
Test Depth/Elevation		6.1 FT/ EL 15.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:59	S	0	--	--
10:14	E	0	0	0
10:14	S	0	--	--
10:29	E	0	0	0
10:29	S	0	--	--
10:44	E	0	0	0
10:44	S	0	--	--
10:59	E	0	0	0

Sandy Lean CLAY (CL)



Sandy Lean CLAY (CL)



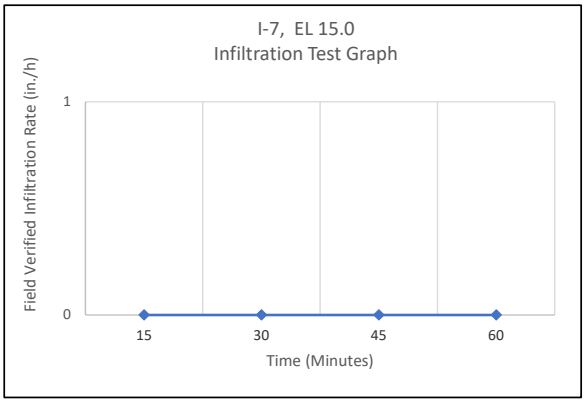
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements
Job No.: 252599
Date: 11/3/2025
Weather: Cloudy/53°
Employee Name: R. Winnan
Site Location: New Castle County, Delaware

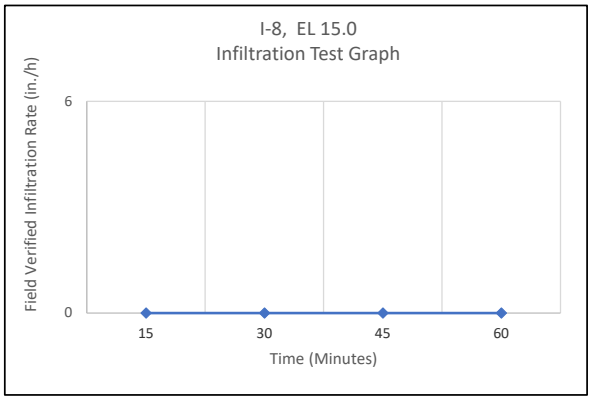
Location		I-7		
Test Depth/Elevation		5.9 FT/ EL 15.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:23	S	0	--	--
9:38	E	0	0	0
9:38	S	0	--	--
9:53	E	0	0	0
9:53	S	0	--	--
10:08	E	0	0	0
10:08	S	0	--	--
10:23	E	0	0	0

Location		I-8		
Test Depth/Elevation		6.0 FT/ EL 15.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
8:25	S	0	--	--
8:40	E	0	0	0.0
8:40	S	0	--	--
8:55	E	0	0	0.0
8:55	S	0	--	--
9:10	E	0	0	0.0
9:10	S	0	--	--
9:25	E	0	0	0.0

Lean CLAY (CL)



Lean CLAY (CL)



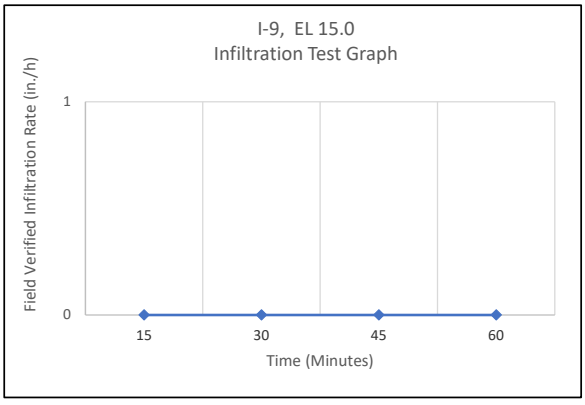
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements
Job No.: 252599
Date: 11/3/2025
Weather: Cloudy/53°
Employee Name: R. Winnan
Site Location: New Castle County, Delaware

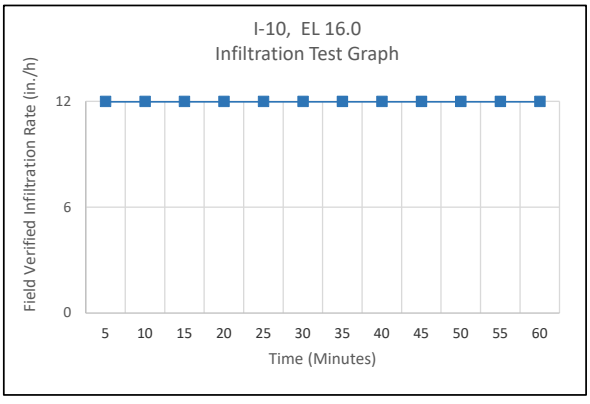
Location		I-9		
Test Depth/Elevation		5.8 FT/ EL 15.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
8:45	S	0	--	--
9:00	E	0	0	0
9:00	S	0	--	--
9:15	E	0	0	0
9:15	S	0	--	--
9:30	E	0	0	0
9:30	S	0	--	--
9:45	E	0	0	0

Location		I-10		
Test Depth/Elevation		7.3 FT/ EL 16.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
11:30	S	0	--	--
11:35	E	Dry	6	12+
11:35	S	0	--	--
11:40	E	Dry	6	12+
11:40	S	0	--	--
11:45	E	Dry	6	12+
11:45	S	0	--	--
11:50	E	Dry	6	12+
11:50	S	0	--	--
11:55	E	Dry	6	12+
11:55	S	0	--	--
12:00	E	Dry	6	12+
12:00	S	0	--	--
12:05	E	Dry	6	12+
12:05	S	0	--	--
12:10	E	Dry	6	12+
12:10	S	0	--	--
12:15	E	Dry	6	12+
12:15	S	0	--	--
12:20	E	Dry	6	12+
12:20	S	0	--	--
12:25	E	Dry	6	12+
12:25	S	0	--	--
12:30	E	Dry	6	12+

Lean CLAY (CL)



Poorly-graded SAND with Silt, contains gravel (SP-SM)



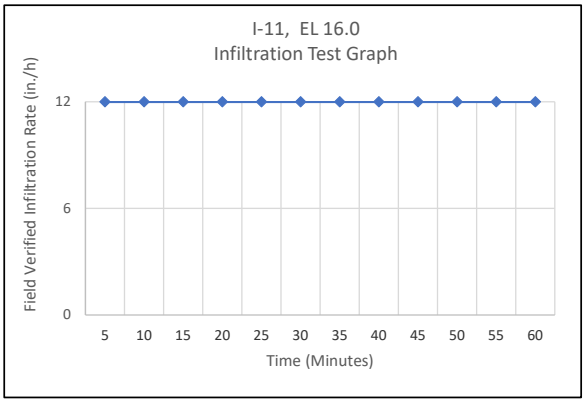
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements
Job No.: 252599
Date: 11/3/2025
Weather: Cloudy/53°
Employee Name: R. Winnan
Site Location: New Castle County, Delaware

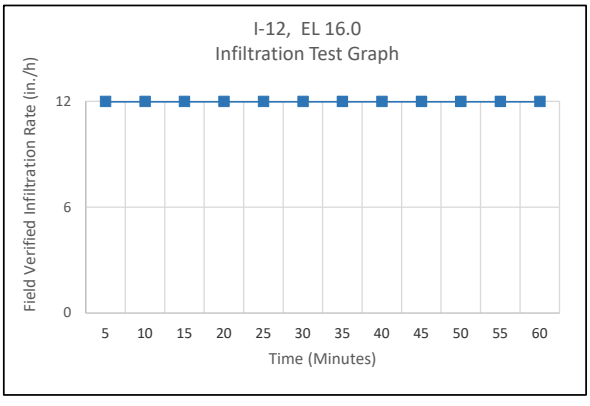
Location		I-11		
Test Depth/Elevation		7.4 FT/ EL 16.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
11:58	S	0	--	--
12:03	E	Dry	6	12+
12:03	S	0	--	--
12:08	E	Dry	6	12+
12:08	S	0	--	--
12:13	E	Dry	6	12+
12:13	S	0	--	--
12:18	E	Dry	6	12+
12:18	S	0	--	--
12:23	E	Dry	6	12+
12:23	S	0	--	--
12:28	E	Dry	6	12+
12:28	S	0	--	--
12:33	E	Dry	6	12+
12:33	S	0	--	--
12:38	E	Dry	6	12+
12:38	S	0	--	--
12:43	E	Dry	6	12+
12:43	S	0	--	--
12:48	E	Dry	6	12+
12:48	S	0	--	--
12:53	E	Dry	6	12+
12:53	S	0	--	--
12:58	E	Dry	6	12+

Location		I-12		
Test Depth/Elevation		7.6 FT/ EL 16.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
12:40	S	0	--	--
12:45	E	Dry	6	12+
12:45	S	0	--	--
12:50	E	Dry	6	12+
12:50	S	0	--	--
12:55	E	Dry	6	12+
12:55	S	0	--	--
1:00	E	Dry	6	12+
1:00	S	0	--	--
1:05	E	Dry	6	12+
1:05	S	0	--	--
1:10	E	Dry	6	12+
1:10	S	0	--	--
1:15	E	Dry	6	12+
1:15	S	0	--	--
1:20	E	Dry	6	12+
1:20	S	0	--	--
1:25	E	Dry	6	12+
1:25	S	0	--	--
1:30	E	Dry	6	12+
1:30	S	0	--	--
1:35	E	Dry	6	12+
1:35	S	0	--	--
1:40	E	Dry	6	12+

Poorly-graded SAND with Silt (SP-SM)



Poorly-graded SAND with Silt (SP-SM)



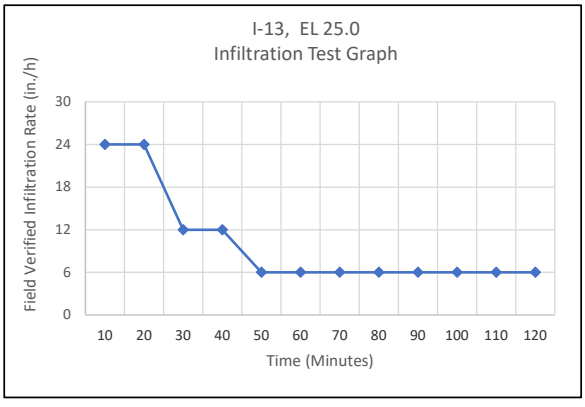
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

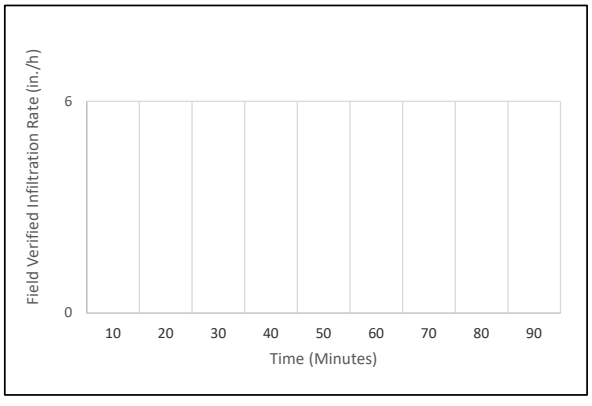
Job Name: William Penn High School Field Improvements
Job No.: 252599
Date: 11/4/2025
Weather: Sunny/54°
Employee Name: R. Winnan
Site Location: New Castle County, Delaware

Location	I-13			
Test Depth/Elevation	7.9 FT/ EL 25.0			
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
8:30	S	0	--	--
8:40	E	4	4	24
8:40	S	0	--	--
8:50	E	4	4	24
8:50	S	0	--	--
9:00	E	2	2	12
9:00	S	2	--	--
9:10	E	4	2	12
9:10	S	0	--	--
9:20	E	1	1	6
9:20	S	1	--	--
9:30	E	2	1	6
9:30	S	2	--	--
9:40	E	3	1	6
9:40	S	3	--	--
9:50	E	4	1	6
9:50	S	0	--	--
10:00	E	1	1	6
10:00	S	1	--	--
10:10	E	2	1	6
10:10	S	2	--	--
10:20	E	3	1	6
10:20	S	3	--	--
10:30	E	4	1	6

Location	
Test Depth	
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
---	---	---	---	---

Silty SAND (SM)





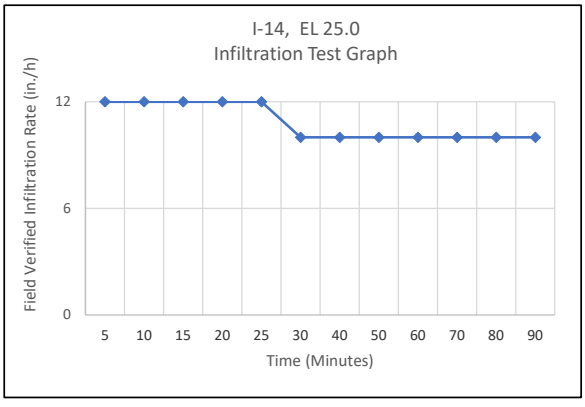
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements
Job No.: 252599
Date: 11/4/2025
Weather: Cloudy/54°
Employee Name: R. Winnan
Site Location: New Castle County, Delaware

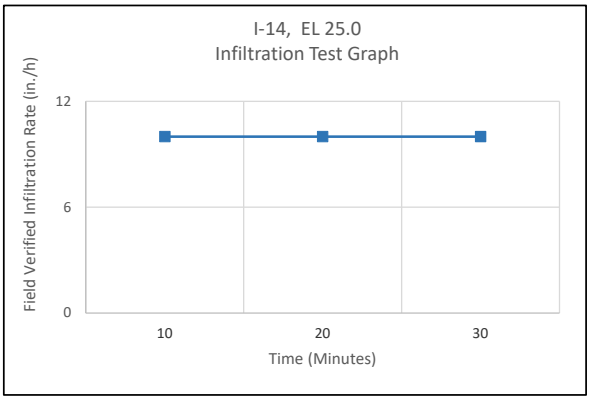
Location	I-14			
Test Depth/Elevation	8.3 FT/ EL 25.0			
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:05	S	0	--	--
9:10	E	Dry	6	12+
9:10	S	0	--	--
9:15	E	Dry	6	12+
9:15	S	0	--	--
9:20	E	Dry	6	12+
9:20	S	0	--	--
9:25	E	3	3	12+
9:25	S	3	--	--
9:30	E	Dry	3	12+
9:30	S	0	--	--
9:40	E	3	3	10+
9:40	S	3	--	--
9:50	E	Dry	3	10+
9:50	S	0	--	--
10:00	E	3	3	10+
10:00	S	0	--	--
10:10	E	3	3	10+
10:10	S	3	--	--
10:20	E	Dry	3	10+
10:20	S	0	--	--
10:30	E	3	3	10+
10:30	S	3	--	--
11:00	E	Dry	3	10+

Location	I-14 Continued			
Test Depth/Elevation	8.3 FT/ EL 25.0			
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
11:00	S	0	--	--
11:10	E	3	3	10+
11:10	S	3	--	--
11:20	E	Dry	3	10+
11:20	S	0	--	--
11:30	E	3	3	10+

Poorly-graded SAND with Silt (SP-SM)



Poorly-graded SAND with Silt (SP-SM)



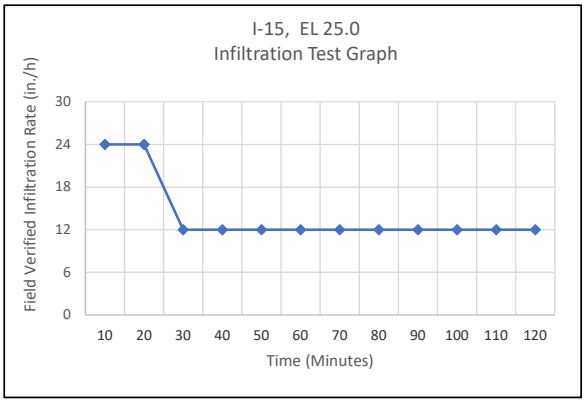
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

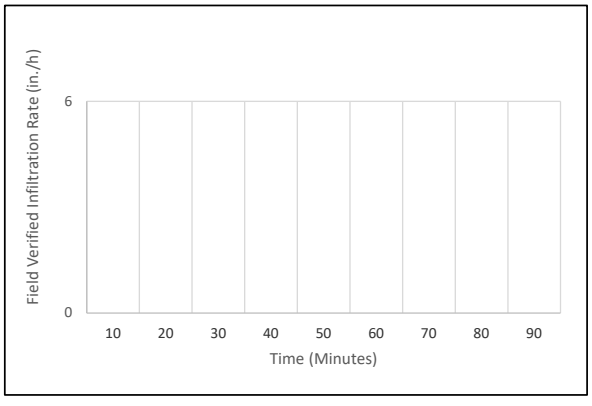
Job Name: William Penn High School Field Improvements Date: 11/4/2025 Employee Name: R. Winnan
Job No.: 252599 Weather: Sunny/54° Site Location: New Castle County, Delaware

Location		I-15		
Test Depth/Elevation		7.5 FT/ EL 25.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:54	S	0	--	--
10:04	E	4	4	24
10:04	S	4	--	--
10:14	E	Dry	4	24
10:14	S	0	--	--
10:24	E	2	2	12
10:24	S	2	--	--
10:34	E	4	2	12
10:34	S	4	--	--
10:44	E	Dry	2	12
10:44	S	0	--	--
10:54	E	2	2	12
10:54	S	2	--	--
11:04	E	4	2	12
11:04	S	4	--	--
11:14	E	Dry	2	12
11:14	S	0	--	--
11:24	E	2	2	12
11:24	S	2	--	--
11:34	E	4	2	12
11:34	S	4	--	--
11:44	E	Dry	2	12
11:44	S	0	--	--
11:54	E	2	2	12

Location				
Test Depth				
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)

Poorly-graded SAND with Silt (SP-SM)





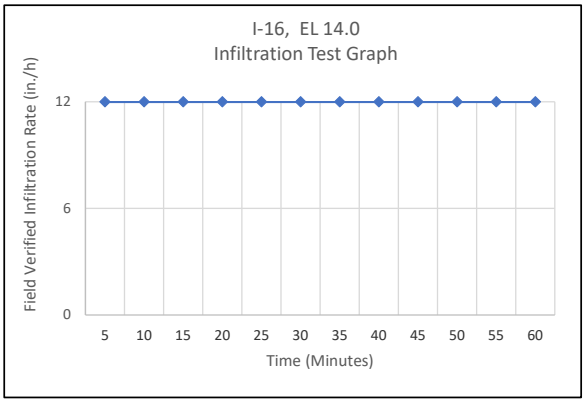
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements
Job No.: 252599
Date: 10/31/2025
Weather: Cloudy/55°
Employee Name: R. Winnan
Site Location: New Castle County, Delaware

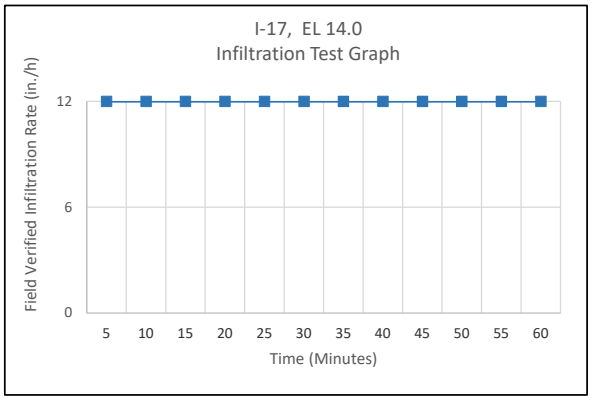
Location		I-16		
Test Depth/Elevation		5.1 FT/ EL 16.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
11:56	S	0	--	--
12:01	E	Dry	6	12+
12;01	S	0	--	--
12:06	E	Dry	6	12+
12:06	S	0	--	--
12:11	E	Dry	6	12+
12:11	S	0	--	--
12:16	E	Dry	6	12+
12:16	S	0	--	--
12:21	E	Dry	6	12+
12:21	S	0	--	--
12:26	E	Dry	6	12+
12:26	S	0	--	--
12:31	E	Dry	6	12+
12:31	S	0	--	--
12:36	E	Dry	6	12+
12:36	S	0	--	--
12:41	E	Dry	6	12+
12:41	S	0	--	--
12:46	E	Dry	6	12+
12:46	S	0	--	--
12:51	E	Dry	6	12+
12:51	S	0	--	--
12:56	E	Dry	6	12+

Location		I-17		
Test Depth/Elevation		6.4 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
11:08	S	0	--	--
11:13	E	Dry	6	12+
11:13	S	0	--	--
11:18	E	Dry	6	12+
11:18	S	0	--	--
11:23	E	Dry	6	12+
11:23	S	0	--	--
11:28	E	Dry	6	12+
11:28	S	0	--	--
11:33	E	Dry	6	12+
11:33	S	0	--	--
11:38	E	Dry	6	12+
11:38	S	0	--	--
11:43	E	Dry	6	12+
11:43	S	0	--	--
11:48	E	Dry	6	12+
11:48	S	0	--	--
11:53	E	Dry	6	12+
11:53	S	0	--	--
11:58	E	Dry	6	12+
11:58	S	0	--	--
12:03	E	Dry	6	12+
12:03	S	0	--	--
12:08	E	Dry	6	12+

Poorly-graded SAND with Silt (SP-SM)



Poorly-graded SAND with Silt (SP-SM)



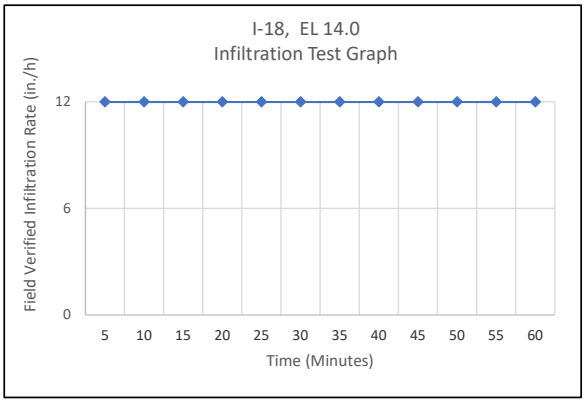
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements
Job No.: 252599
Date: 10/31/2025
Weather: Cloudy/55°
Employee Name: R. Winnan
Site Location: New Castle County, Delaware

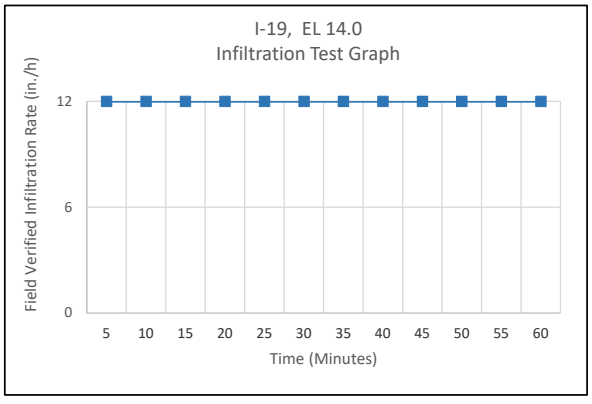
Location		I-18		
Test Depth/Elevation		7.6 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
10:35	S	0	--	--
10:40	E	Dry	6	12+
10:40	S	0	--	--
10:45	E	Dry	6	12+
10:45	S	0	--	--
10:50	E	Dry	6	12+
10:50	S	0	--	--
10:55	E	Dry	6	12+
10:55	S	0	--	--
11:00	E	Dry	6	12+
11:00	S	0	--	--
11:05	E	Dry	6	12+
11:05	S	0	--	--
11:10	E	Dry	6	12+
11:10	S	0	--	--
11:15	E	Dry	6	12+
11:15	S	0	--	--
11:20	E	Dry	6	12+
11:20	S	0	--	--
11:25	E	Dry	6	12+
11:25	S	0	--	--
11:30	E	Dry	6	12+
11:30	S	0	--	--
11:35	E	Dry	6	12+

Location		I-19		
Test Depth/Elevation		8.0 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:43	S	0	--	--
9:48	E	Dry	6	12+
9:48	S	0	--	--
9:53	E	Dry	6	12+
9:53	S	0	--	--
9:58	E	Dry	6	12+
9:58	S	0	--	--
10;03	E	Dry	6	12+
10:03	S	0	--	--
10:08	E	Dry	6	12+
10:08	S	0	--	--
10:13	E	Dry	6	12+
10:13	S	0	--	--
10:18	E	Dry	6	12+
10:18	S	0	--	--
10:23	E	Dry	6	12+
10:23	S	0	--	--
10:28	E	Dry	6	12+
10:28	S	0	--	--
10:33	E	Dry	6	12+
10:33	S	0	--	--
10:38	E	Dry	6	12+
10:38	S	0	--	--
10:43	E	Dry	6	12+

Poorly-graded SAND with Silt (SP-SM)



Poorly-graded SAND with Silt (SP-SM)



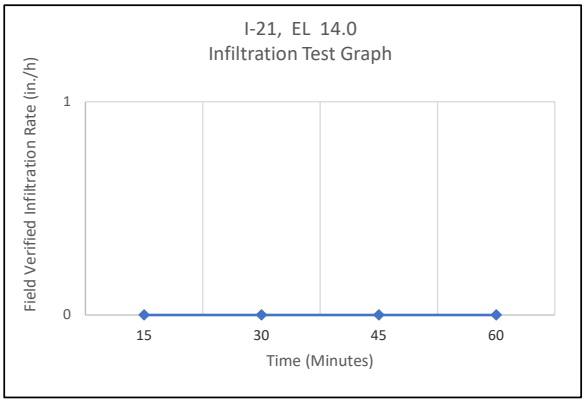
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

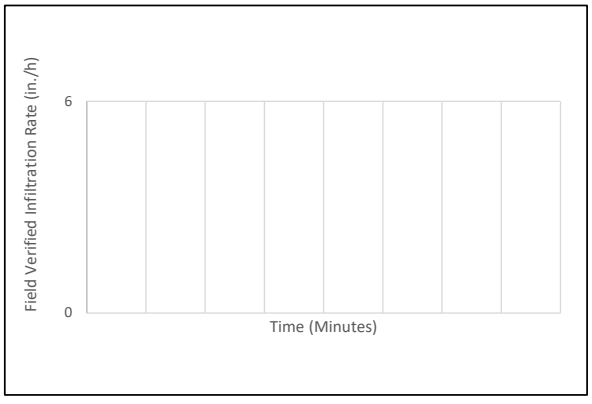
Job Name: William Penn High School Field Improvements Date: 10/29/2025 Employee Name: R. Winnan
Job No.: 252599 Weather: Overcast/56° Site Location: New Castle County, Delaware

Location		I-20		
Test Depth/Elevation		6.0 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
8:42	S	0	--	--
8:57	E	0	0	0.0
8:57	S	0	--	--
9:12	E	0	0	0.0
9:12	S	0	--	--
9:27	E	0	0	0.0
9:27	S	0	--	--
9:42	E	0	0	0.0

Location				
Test Depth/Elevation				
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)

Sandy Lean CLAY (CL)





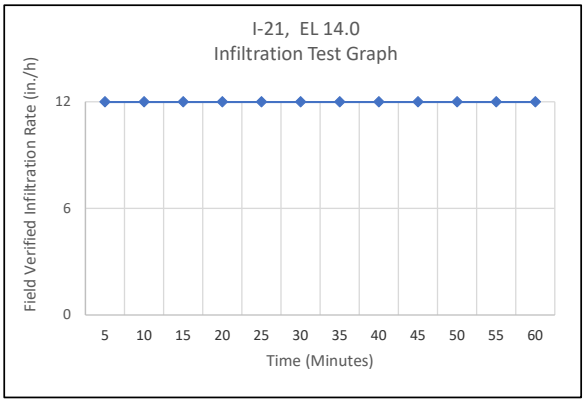
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BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

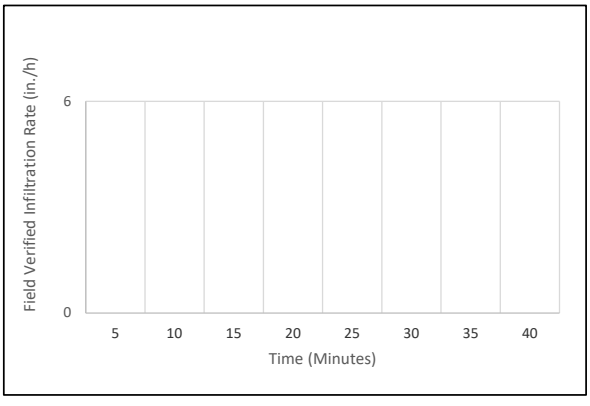
Job Name: William Penn High School Field Improvements Date: 10/29/2025 Employee Name: R. Winnan
Job No.: 252599 Weather: Overcast/56° Site Location: New Castle County, Delaware

Location		I-21		
Test Depth/Elevation		6.0 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:03	S	0	--	--
9:08	E	Dry	6	12+
9:08	S	0	--	--
9:13	E	Dry	6	12+
9:13	S	0	--	--
9:18	E	Dry	6	12+
9:18	S	0	--	--
9:23	E	Dry	6	12+
9:23	S	0	--	--
9:28	E	Dry	6	12+
9:28	S	0	--	--
9:33	E	Dry	6	12+
9:33	S	0	--	--
9:38	E	Dry	6	12+
9:38	S	0	--	--
9:43	E	Dry	6	12+
9:43	S	0	--	--
9:48	E	Dry	6	12+
9:48	S	0	--	--
9:53	E	Dry	6	12+
9:53	S	0	--	--
9:58	E	Dry	6	12+
9:58	S	0	--	--
10:03	E	Dry	6	12+

Location				
Test Depth/Elevation				
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)

Poorly-graded SAND with Silt (SP-SM)





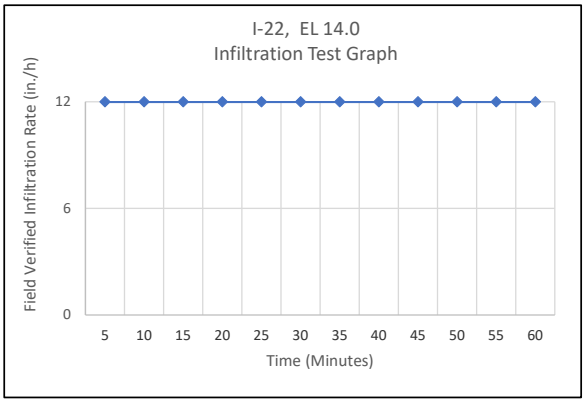
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BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements
Job No.: 252599
Date: 10/29/2025
Weather: Overcast/55°
Employee Name: R. Winnan
Site Location: New Castle County, Delaware

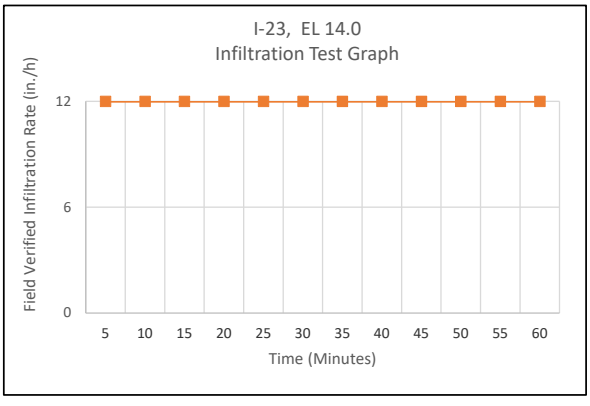
Location		I-22		
Test Depth/Elevation		6.7 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
12:00	S	0	--	--
12:05	E	Dry	6	12+
12:05	S	0	--	--
12:10	E	Dry	6	12+
12:10	S	0	--	--
12:15	E	Dry	6	12+
12:15	S	0	--	--
12:20	E	Dry	6	12+
12:20	S	0	--	--
12:25	E	Dry	6	12+
12:25	S	0	--	--
12:30	E	Dry	6	12+
12:30	S	0	--	--
12:35	E	Dry	6	12+
12:35	S	0	--	--
12:40	E	Dry	6	12+
12:40	S	0	--	--
12:45	E	Dry	6	12+
12:45	S	0	--	--
12:50	E	Dry	6	12+
12:50	S	0	--	--
12:55	E	Dry	6	12+
12:55	S	0	--	--
1:00	E	Dry	6	12+

Location		I-23		
Test Depth/Elevation		7.3 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
1:08	S	0	--	--
1:13	E	Dry	6	12+
1:13	S	0	--	--
1:18	E	Dry	6	12+
1:18	S	0	--	--
1:23	E	Dry	6	12+
1:23	S	0	--	--
1:28	E	Dry	6	12+
1:28	S	0	--	--
1:33	E	Dry	6	12+
1:33	S	0	--	--
1:38	E	Dry	6	12+
1:38	S	0	--	--
1:43	E	Dry	6	12+
1:43	S	0	--	--
1:48	E	Dry	6	12+
1:48	S	0	--	--
1:53	E	Dry	6	12+
1:53	S	0	--	--
1:58	E	Dry	6	12+
1:58	S	0	--	--
2:03	E	Dry	6	12+
2:03	S	0	--	--
10:03	E	Dry	6	12+

Poorly-graded SAND with Silt (SP-SM)



Poorly-graded SAND with Silt (SP-SM)



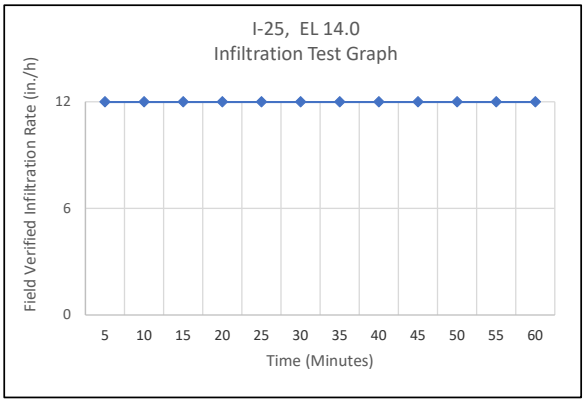
DNREC Delaware Post Construction Stormwater
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Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

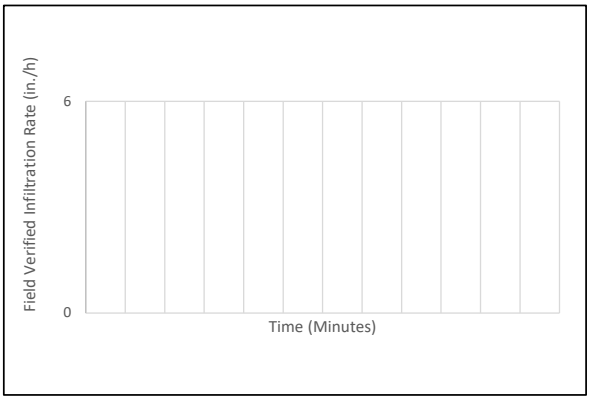
Job Name: William Penn High School Field Improvements Date: 10/29/2025 Employee Name: R. Winnan
Job No.: 252599 Weather: Overcast/55° Site Location: New Castle County, Delaware

Location		I-25		
Test Depth/Elevation		4.2 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:55	S	0	--	--
10:00	E	Dry	6	12+
10:00	S	0	--	--
10:05	E	Dry	6	12+
10:05	S	0	--	--
10:10	E	Dry	6	12+
10:10	S	0	--	--
10:15	E	Dry	6	12+
10:15	S	0	--	--
10:20	E	Dry	6	12+
10:20	S	0	--	--
10:25	E	Dry	6	12+
10:25	S	0	--	--
10:30	E	Dry	6	12+
10:30	S	0	--	--
10:35	E	Dry	6	12+
10:35	S	0	--	--
10:40	E	Dry	6	12+
10:40	S	0	--	--
10:45	E	Dry	6	12+
10:45	S	0	--	--
10:50	E	Dry	6	12+
10:50	S	0	--	--
10:55	E	Dry	6	12+

Location				
Test Depth/Elevation				
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)

Poorly-graded SAND with Silt (SP-SM)





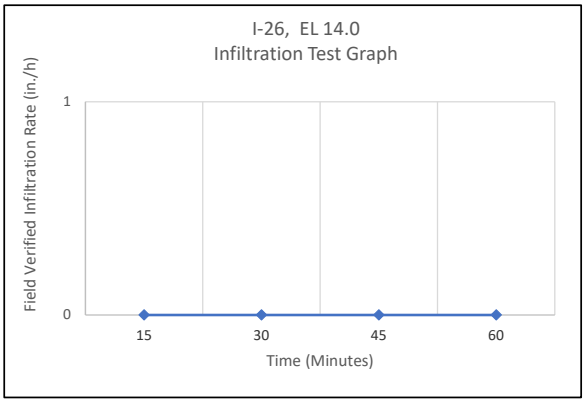
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
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Single-Ring Infiltration Test Results (Design)

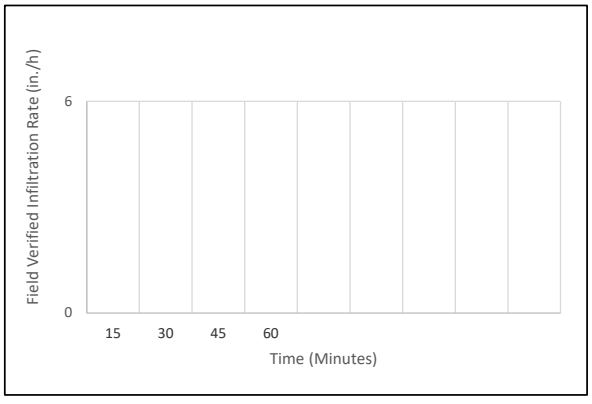
Job Name: William Penn High School Field Improvements Date: 10/27/2025 Employee Name: A. Kellmyer
Job No.: 252599 Weather: Sunny/60° Site Location: New Castle County, Delaware

Location		I-26		
Test Depth/Elevation		6.2 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
9:33	S	0	--	--
9:48	E	0	0	0.0
9:48	S	0	--	--
10:03	E	0	0	0.0
10:03	S	0	--	--
10:18	E	0	0	0.0
10:18	S	0	--	--
10:33	E	0	0	0.0

Location				
Test Depth				
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)

Sandy Lean CLAY (CL)





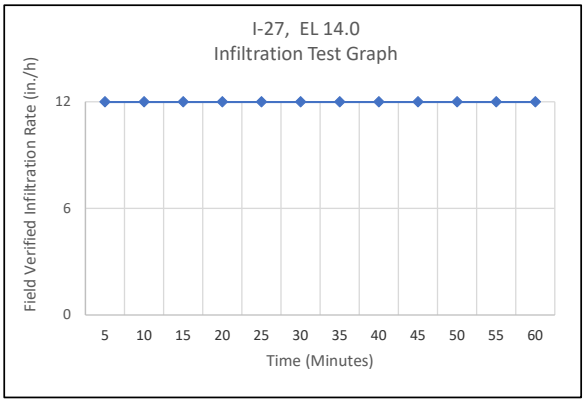
DNREC Delaware Post Construction Stormwater
BMP Standards and Specifications February 2019
Appendix 1: Soil Investigation Procedures for Stormwater Best Management Practices
Single-Ring Infiltration Test Results (Design)

Job Name: William Penn High School Field Improvements
Job No.: 252599
Date: 10/29/2025
Weather: Overcast/55°
Employee Name: R. Winnan
Site Location: New Castle County, Delaware

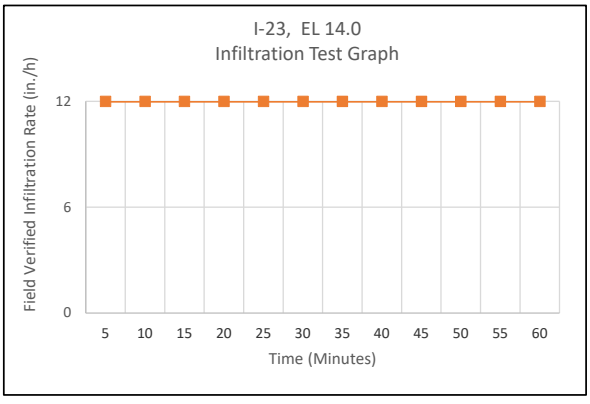
Location		I-27		
Test Depth/Elevation		6.8 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
12:45	S	0	--	--
12:50	E	Dry	6	12+
12:50	S	0	--	--
12:55	E	Dry	6	12+
12:55	S	0	--	--
1:00	E	Dry	6	12+
1:00	S	0	--	--
1:05	E	Dry	6	12+
1:05	S	0	--	--
1:10	E	Dry	6	12+
1:10	S	0	--	--
1:15	E	Dry	6	12+
1:15	S	0	--	--
1:20	E	Dry	6	12+
1:20	S	0	--	--
1:25	E	Dry	6	12+
1:25	S	0	--	--
1:30	E	Dry	6	12+
1:30	S	0	--	--
1:35	E	Dry	6	12+
1:35	S	0	--	--
1:40	E	Dry	6	12+
1:40	S	0	--	--
1:45	E	Dry	6	12+

Location		I-28		
Test Depth/Elevation		7.6 FT/ EL 14.0		
Time	Start/End	Depth to water (inches)	Drop (inches)	Rate (inches per hour)
1:30	S	0	--	--
1:35	E	Dry	6	12+
1:35	S	0	--	--
1:40	E	Dry	6	12+
1:40	S	0	--	--
1:45	E	Dry	6	12+
1:45	S	0	--	--
1:50	E	Dry	6	12+
1:50	S	0	--	--
1:55	E	Dry	6	12+
1:55	S	0	--	--
2:00	E	Dry	6	12+
2:00	S	0	--	--
2:05	E	Dry	6	12+
2:05	S	0	--	--
2:10	E	Dry	6	12+
2:10	S	0	--	--
2:15	E	Dry	6	12+
2:15	S	0	--	--
2:20	E	Dry	6	12+
2:20	S	0	--	--
2:25	E	Dry	6	12+
2:25	S	0	--	--
2:30	E	Dry	6	12+

Poorly-graded SAND with Silt (SP-SM)



Poorly-graded SAND with Silt (SP-SM)



DNREC Division of Watershed Stewardship
285 Beiser Boulevard, Suite 102
Dover, DE 19904
(302) 739-9921

Soil Investigation Report Submittal Checklist

DATE RECEIVED: _____ **PROJECT NUMBER:** _____

PROJECT NAME: William Penn High School Athletic Field Improvements

The items contained on this checklist are necessary to properly evaluate and determine the completeness of any Soil Investigation Report submitted under subsection 12.1 of the Delaware Sediment and Stormwater Regulations. Complete all items. It is understood not all items will be applicable to all projects and as such marking an item "N/A" is acceptable.

I. ✓ **General Soil Investigation Reports.** The following information, as applicable, should be submitted for all projects.

1) ✓ The signature, seal and date of a professional engineer or professional geologist experienced in soils licensed in the State of Delaware.

2) ✓ General description of the project, project elements, and project background.

3) ✓ Project site surface conditions and current use.

4) ✓ Regional and site geology. An initial screening of readily available data to determine feasibility of infiltration practices, if applicable, including:

a) ✓ Site topography

b) ✓ Soil characteristics as defined in the USDA NRCS Web Soil Survey

c) ✓ Depth to groundwater and seasonal high water table

d) N/A Historical groundwater level data from the nearest Delaware Geological Survey (DGS) monitoring well or wells

5) ✓ Minimum number of borings or test pits conducted in accordance with the following:

a) ✓ Surface area BMPs:

i) ✓ Two (2) borings or pits for the first 8,000 square feet

ii) ✓ Three (3) borings or pits for up to 16,000 square feet

iii) ✓ Four (4) borings or pits for up to 25,000 square feet

iv) ✓ One (1) additional boring or pit for each additional 25,000 square feet beyond the first 25,000 square feet

v) ✓ Boring or pit locations distributed within the facility and sufficient to determine soil variability

b) ____ Linear BMPS:

i) ____ Two (2) borings or pits up to 500 linear feet, and

ii) ___ One (1) additional boring or pit per additional 500 linear feet of trench

iii) ____ Boring or pit locations distributed and sufficient to determine soil variability

Soil Investigation Report Submittal Checklist

6) ✓ Borings or test pits advanced to the depth of the limiting layer or a minimum of three (3) feet below bottom of the proposed facility, whichever is encountered first.

7) ✓ Borehole or test pit logs including the following information:

a) ✓ Project name

b) ✓ Name of individual collecting the field data

c) ✓ Date field data was collected

d) ✓ Type of boring or test pit excavation method and equipment used

e) ✓ Air temperature and precipitation, including significant precipitation prior to investigation

f) ✓ Elevation of ground at boring location based on site benchmark

g) ✓ Visual description of soil profile layers, and depths below grade encountered

h) ✓ Sample numbers

i) ✓ Depths to any indications of instability such as cave in, sloughing, flowing sands, or obstructions

j) ✓ Blow counts if Standard Penetration Test (SPT) borings are performed

k) ✓ Depth of seasonal high water table indicators such as mottling

l) ✓ Depth of encountered free water during and after excavation

m) N/A Depth to bedrock if encountered

n) ✓ General observations

o) ✓ Testing standards

8) ✓ Depth and type of field testing performed. A summary of the laboratory testing conducted, if applicable.

9) ✓ Project soil and rock conditions including a description of the soil and rock units encountered, and how the units tie into the site geology.

10) ✓ Description of groundwater conditions, including the identification of any of the following:

a) ✓ Confined aquifers

b) N/A Artesian pressures

c) ✓ Perched water tables

d) ✓ Potential seasonal variations, if known

e) ✓ Any influences on the ground water levels observed

f) N/A Direction and gradient of groundwater, if known

11) N/A Discussion of rock structure, if applicable, including but not limited to:

a) N/A The results of any field structure mapping using photographs as needed,

b) N/A Joint condition

c) N/A ____ Rock strength

d) N/A ____ Potential for seepage.

12) N/A ____ Summary of geological hazards identified and their impact on the project design, if any. Description of the location and extent of the geological hazard.

13) N/A ____ For analysis of unstable slopes including existing settlement areas, cuts, and fills, include background regarding the analysis approach, assessment of failure mechanisms, and determination of design parameters. Include a description of any back-analyses conducted, the results of those analyses, comparison of those results to any laboratory test data obtained, and the conclusions made regarding the parameters to be used for final design.

14) N/A ____ Geotechnical recommendations for structural earthwork including:

a) N/A ____ Embankment design recommendations, as applicable, including but not limited to the following:

i)____ Slope required for stability

ii) ___ Need and extent of removal of any unsuitable materials beneath the proposed fills

iii)____ Any other measures that need to be taken to provide a stable embankment

iv) ___ Embankment settlement magnitude and rate

b) N/A ____ Cut design recommendations, as applicable, including but not limited to the following:

i)____ Slope required for stability

ii) ___ Seepage and piping control

iii)____ Erosion control measures

iv) ___ Any special measures required to provide a stable slope

c) N/A ____ Determination of adequacy of excavated material for use as structural fill or spoil

d) N/A ____ Data for structural designs of BMP outlet works

15) N/A ____ Long-term or construction monitoring needs, if applicable.

a) ____ Recommendation for types of instrumentation needed to evaluate long-term performance or to control construction

b) ____ Specify the reading schedule required

c) ____ Specify how the data should be used to control construction or to evaluate long-term performance

d) ____ Specify the zone of influence for each instrument.

16) N/A ____ Address issues of construction staging, shoring needs and potential installation difficulties, temporary slopes, potential foundation installation problems, earthwork constructability issues, and dewatering, as applicable.

17) N/A ____ Appendices to support geotechnical recommendations.

Soil Investigation Report Submittal Checklist

II. ✓ **Infiltration Test Reports.** The following information, as applicable, should be submitted for all stormwater management BMPs that rely upon infiltration.

18) ✓ Description of approved infiltration testing method.

a) ✓ Field Permeability Testing conducted in accordance with ASTM-D5126 "Comparison of Field Methods for Determining Hydraulic Conductivity in the Vadose Zone".

b) ✓ Single Ring or Double Ring Infiltrometer test method

c) N/A Cased Borehole Permeameter test method

i)____ Department or Delegated Agency approval granted prior to conducting the test

ii) ___ Minimum four (4) inch diameter casing used

d) ✓ Any deviation from infiltration testing procedures approved by the Department or Delegated Agency noted in the report.

19) ✓ Summary table of location of test, depth of test, elevation of test if available and field verified infiltration rate.

20) ✓ The minimum number of field measured infiltration tests are based on the proposed facility's dimensions as follows:

a) N/A For an infiltration trench with less than 10,000 square feet of impervious drainage area:

i)____ One (1) test up to 500 linear feet, and

ii) ___ One (1) additional test per 250 linear feet of trench, and

iii)____ Sufficient to determine variability.

b) N/A For an infiltration trench with greater than 10,000 square feet of impervious drainage area:

i)____ One (1) test up to 250 linear feet, and

ii) ___ One (1) additional test per 250 linear feet of trench, and

iii)____ Sufficient to determine variability.

c) N/A For an infiltration trench used with roadway perforated pipe layouts:

i)____ One (1) test up to 500 linear feet, and

ii) ___ One (1) additional test per 500 linear feet of trench, and

iii)____ Sufficient to determine variability.

d) N/A For an infiltrating bioretention system:

i)____ One (1) test for the first 8,000 square feet

ii) ___ Two (2) tests for up to 16,000 square feet

iii)____ Three (3) tests for up to 25,000 square feet

iv) ___ One (1) additional test for each additional 25,000 square feet beyond the first 25,000 square feet

v) ✓ Test locations distributed within the facility and sufficient to determine variability.

e) ✓ For a surface infiltration basin:

i) ✓ One (1) test for the first 8,000 square feet

ii) ✓ Two (2) tests for up to 16,000 square feet

iii) ✓ Three (3) tests for up to 25,000 square feet

iv) ✓ One (1) additional test for each additional 25,000 square feet beyond the first 25,000 square feet.

v) ✓ Test locations distributed within the facility and sufficient to determine variability.

f) ✓ For a subsurface infiltrating practice:

i) ✓ One (1) test per infiltration area

ii) ✓ One (1) additional test for every 8,000 square feet of infiltration area

iii) ✓ Test locations distributed within the facility and Sufficient to determine variability

21) ✓ Infiltration test log, including:

a) ✓ Name and license number of individual performing test. Individuals in responsible charge of infiltration testing possesses a Class D On-Site License issued by DNREC Division of Water Groundwater Discharges Section or be licensed in the State of Delaware as a Professional Engineer or Professional Geologist.

b) ✓ Date test was performed

c) ✓ Type of test method

d) ✓ Air temperature and precipitation

e) ✓ Depth of test below ground surface and elevation. Separation to a limiting layer such as bedrock or groundwater of at least two (2) feet maintained.

f) ✓ Diameters of boring and casing

g) ✓ Depth of casing penetration

h) ✓ Time and depth from reference point for each time increment.

i) ✓ A saturation period of one hour or a drop of 12 inches or 30.5 centimeters achieved. Saturation period not used in determining field verified infiltration rate.

ii) ✓ After the saturation period, a minimum of two (2) test periods completed or until at least two (2) consecutive test periods are consistent and achieve a stabilized infiltration rate. Each test period has a maximum reading interval of 15 minutes and meets one (1) of the following criteria:

(1) ✓ A minimum of one hour as determined by the sum of the interval times

(2) ____ A drop of at least 12 inches in 15 minutes or less for a minimum of 30 minutes as determined by the sum of the interval times

iii) ✓ Stabilized infiltration rate met as defined as one of the following:

(1) ✓ A difference of 0.25 inches or less of drop between the highest and lowest reading of four (4) consecutive readings for infiltration rates greater than two (2.0) inches per hour

(2) ✓ A difference of 0.125 inches or less of drop between the highest and lowest reading of four (4) consecutive readings for infiltration rates equal to or less than two (2.0) inches per hour.

iv) ✓ When using the constant head test method, water level inside the casing maintained at a constant level or refilled to the starting level after each reading throughout the test period at no more than 15 minute intervals.

v) ✓ When using the falling head test method each test period starts with the same initial head.

22) ✓ Infiltration rate graph for each test charting the field verified infiltration rate versus elapsed time of test. Append to each graph a table of the testing results. The field verified infiltration rate is the final steady state reading of the test performed.

23) ✓ Geotechnical recommendations for each stormwater management facility, including the following:

a) ✓ Recommended design infiltration rate based on the following:

i) ✓ Apply a minimum factor of safety of 2.0 to field results from Single Ring or Double Ring Infiltrometer testing

ii) N/A Apply a minimum factor of safety of 2.5 to field results from Cased Borehole Permeameter testing.

iii) ✓ Provide an elevation range over which the recommended design rates are applicable.

iv) ✓ The maximum design infiltration rate is less than or equal to 15 inches per hour.

b) N/A Impact of infiltration on adjacent facilities

c) N/A Effect of infiltration on slope stability

d) N/A If the facility is located on a slope, stability of slopes within the facility

e) ✓ Foundation bearing resistance

f) N/A If steady state conditions for a given test are not achieved, provide an explanation as to why steady state could not be achieved and the professional's opinion regarding the use of the results for design purposes. If steady state is not achieved for a given test and a reasonable professional opinion is not provided, the Department or Delegated Agency may require additional testing.

Soil Investigation Report Submittal Checklist

III. N/A **Geotechnical Reports for Embankments.** The following information, as applicable, should be submitted for all stormwater management BMPs containing an embankment.

24) N/A The signature, seal and date of a professional engineer licensed in the State of Delaware.

25) N/A Subsurface Exploration

a) ____ Explorations every 200 feet on center along the length of the embankment.

b) ____ Unless bedrock is encountered at a shallower depth, explorations at a depth twice the proposed height from bottom of pond to top of embankment.

c) ____ If bedrock is encountered, a minimum five (5) foot rock core performed. If organic, plastic, or soils with an actual or estimated N-value less than four (4) are encountered, extended exploration to a depth of four (4) times the proposed embankment height.

d) ____ If there is a potential for a significant groundwater gradient beneath an embankment or surface water levels are significantly higher on one side of the embankment than the other, the effect of reduced soil strength caused by water seepage has been evaluated.

e) ____ Seepage effects considered when an embankment is placed on or near the top of a slope that has known or potential seepage through it.

26) N/A Summary of design analyses, which provide the project description and basis of the design recommendations.

27) N/A Summary of stability analyses, which provide the results of the stability analyses performed for the given embankment dimensions.

28) N/A Summary of settlement analyses, including design assumptions and settlement results for above-grade embankments.

29) N/A Design recommendations for embankment construction identifying the following actions:

a) ____ Construction procedures for placement of material in embankment widening areas

b) ____ Embankment cut-off and core trench materials for above-grade embankments

c) ____ Special notes for excavation of unsuitable material, with specific backfill requirements

d) ____ Specific measures required prior to placing embankment material

e) ____ Installation of appropriate erosion control and vegetative cover

Contract B-01: Concrete Reinforcing & Slabs

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

Alternate No. 8: Delete Roof Structure, Roof and Lighting on Batting Cages, Concrete slab to remain in scope.

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $30,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL)

_____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-02: Structural Steel, Joists, Deck and Misc Metals

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $30,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond

Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-03: Unit Masonry

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $35,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond

Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-04: General Trades

Includes, but not limited to: CARPENTRY, CFMF, WOOD TRUSSES, GYP ASSEMBLIES, DOORS, FRAMES and HARDWARE, ALUMINUM STOREFRONTS & WINDOWS, ACT CLGS, ARCHITECTURAL SPECIALTIES, CASEWORK & TRIM, ROLL-UP DOORS & GRILLS, BASEBALL/SOFTBALL DUGOUTS, EXTERIOR ATHLETIC SCOREBOARDS, JOINT SEALANTS, CERAMIC TILE, METAL and CEMENTITIOUS SIDING and METAL ROOF on Maintenance Building.

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

Alternate No. 8: Delete Roof Structure, Roof and Lighting on Batting Cages, Concrete slab to remain in scope.

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $150,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____

(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-05: Metal & EPDM Roofing (Excluding Maintenance Building Roof)

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

Alternate No. 8: Delete Roof Structure, Roof and Lighting on Batting Cages, Concrete slab to remain in scope.

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $20,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL)

_____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-06: Soft Flooring

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $10,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond

Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-07: Fluid-Applied Flooring

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $10,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond

Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-08: Painting

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $10,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond

Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-09: Bleachers and Grandstands

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

1. **No Alternates for this Bid Package Contract.**

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs for this Bid Package Contract.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $20,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____

_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-10: Fire Protection

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $10,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond

Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-11: Plumbing, HVAC, and Controls

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $40,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond

Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-12: Electrical, Lighting, Fire Alarm Systems & Stadium Lighting

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

Alternate No. 8: Delete Roof Structure and Roof on Batting Cages, Concrete slab to remain in scope.

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $40,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL)

_____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-13: Special Systems

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $10,000 allowance for misc. work to be determined by Owner and Construction Manager.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond

Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-14: Testing, Adjusting and Balancing

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____ ($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____ ($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____ ($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____ ($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____ ($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____ ($_____)

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. No Unit Costs required.

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $0.00 Allowance.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address:_____
_____
_____
_____

Witness: _____ By: _____
(Authorized Signature)

(SEAL) _____
(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond

Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

Contract B-15: General Labor and Clean-up

BID FORM

For Bids Due: _____ To: ***Colonial School District***
701 East Basin Road
New Castle, DE 19720

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____
(A copy of Bidder's Delaware Business License must be attached to this form.)

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

$_____ ($_____)

ALTERNATES
Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An "ADD" or "DEDUCT" amount is indicated by the crossed out part that does not apply.

1. **No alternates for this Bid Package Contract.**

UNIT PRICES

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

1. **ADD/DEDUCT per Labor Hour added or not used. $_____**

ALLOWANCES

We/I confirm that the following Allowances have been included in the Base Bid price listed above.

1. $0.00 allowance.

NOTE: The difference in price between Add and Deduct in the above Unit Prices should not exceed fifteen percent (15%).

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for sixty (60) days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _ calendar days of the Notice to Proceed.
The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

_____
(State of Corporation)

Business Address: _____

_____

_____

_____

Witness: _____ By: _____

(Authorized Signature)

(SEAL)

_____

(Title)

Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Bid Bond
Consent of Surety
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Affidavit of Craft Training Compliance
Bid Security
Delaware Business License
New Castle County Contractor's License

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

	Subcontractor Category	**Subcontractor**	**Address (City & State)**	**Subcontractors tax-payer ID # or Delaware Business license #**
1.				
2.				
3.				
4.				
5.				

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date

All the terms and conditions of ***Contract A-01 : Sitework*** have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE (TYPED): _____

AUTHORIZED REPRESENTATIVE (SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

_____

_____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

BID BOND

TO ACCOMPANY PROPOSAL
(Not necessary if security is used)

KNOW ALL MEN BY THESE PRESENTS That: _____of _____in the County of _____ and State of _____ as Principal, and _____of _____in the County of _____ _____ and State of _____ as Surety, legally authorized to do business in the State of Delaware ('State"), are held and firmly unto the **Colonial School District** in the sum of _____ Dollars ($_____), or percent not to exceed _____ Dollars ($_____) of amount of bid on Contract No. _____ to be paid to the **Colonial School District** for the use and benefit of the **Colonial School District** for which payment well and truly to be made, we do bind ourselves, our and each of our heirs, executors, administrators, and successors, jointly and severally for and in the whole firmly by these presents.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH That if the above bonded Principal who has submitted to the ***Colonial School District*** a certain proposal to enter into this contract for the furnishing of certain material and/or services within the State, shall be awarded this Contract, and if said Principal shall well and truly enter into and execute this Contract as may be required by the terms of this Contract and approved by the ***Colonial School District*** this Contract to be entered into within twenty days after the date of official notice of the award thereof in accordance with the terms of said proposal, then this obligation shall be void or else to be and remain in full force and virtue.

Sealed with _____seal and dated this____day of _____in the year of our Lord two thousand and _____(20__).

SEALED, AND DELIVERED IN THE PRESENCE OF

_____
Name of Bidder (Organization)

Corporate Seal

By:_____
Authorized Signature

Attest _____ _____
Title

_____
Name of Surety

Witness_____ _____

_____
Title

CONSENT OF SURETY

DATE_____

To: *Colonial School District*
701 East Basin Road
New Castle, DE 19720

Gentlemen:

We, the _____

_____
(Surety Company's Address)

_____

a Surety Company authorized to do business in the State of Delaware hereby agrees that if

_____
(Contractor)

_____
(Address)

_____

is awarded the Contract No. _____

We will write the required Performance and/or Labor and Material Bond required by Paragraph 9 of the Instructions to Bidders.

_____
(Surety Company)

By _____
(Attorney-in-Fact)

AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of_____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

_____

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

END OF SECTION

SECTION 005200 - AGREEMENT

1. SUMMARY

A. The Agreement Form for this Project is the American Institute of Architects Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition, AIA Document A132 – 2019

B. A copy of AIA Document A132 - 2019 Edition is bound into this Project Manual following this page.

1. Under Article 5.1.4.5 add the following:

"Upon completion of the work under the Contract, the Owner may release 60% of the amount then retained. The balance of the amount retained will be held until:

a. All reports required of the Contract are received;
b. All Subcontractors in trades listed on the Bid Form are paid by the Contractor, unless the amount owed to the Subcontractor is disputed, in which case the Owner may withhold 150% of the amount withheld by the Contractor in its dispute with the Subcontractor; and
c. Final payment is authorized by the Owner."

END OF SECTION

DRAFT

AIA® Document A132™ – 2019

Standard Form of Agreement Between Owner and Contractor,
Construction Manager as Adviser Edition

AGREEMENT made as of the « » day of « » in the year « »
(In words, indicate day, month, and year.)

BETWEEN the Owner:
(Name, legal status, address, and other information)

« »« »
« »
« »
« »

and the Contractor:
(Name, legal status, address, and other information)

« »« »
« »
« »
« »

for the following Project:
(Name, location, and detailed description)

«Blank AIAs»
« »
« »

The Construction Manager:
(Name, legal status, address, and other information)

« »« »
« »
« »
« »

The Architect:
(Name, legal status, address, and other information)

« »« »
« »
« »
« »

The Owner and Contractor agree as follows.

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.

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

This document is intended to be used in conjunction with AIA Documents A232™–2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition; B132™–2019, Standard Form of Agreement Between Owner and Architect, Construction Manager as Adviser Edition; and C132™–2019, Standard Form of Agreement Between Owner and Construction Manager as Adviser. AIA Document A232™–2019 is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

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TABLE OF ARTICLES

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ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND DATES OF SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:
(Check one of the following boxes.)

[« »] The date of this Agreement.

[« »] A date set forth in a notice to proceed issued by the Owner.

[« »] Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

« »

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

§ 3.3 Substantial Completion of the Project or Portions Thereof

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the date of Substantial Completion of the Work of all of the Contractors for the Project will be:
(Insert the date of Substantial Completion of the Work of all Contractors for the Project.)

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« »

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work of all of the Contractors for the Project are to be completed prior to Substantial Completion of the entire Work of all of the Contractors for the Project, the Contractors shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date

§ 3.4 When the Work of this Contract, or any Portion Thereof, is Substantially Complete

§ 3.4.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall substantially complete the entire Work of this Contract:
(Check one of the following boxes and complete the necessary information.)

[« »] Not later than « » (« ») calendar days from the date of commencement of the Work.

[« »] By the following date: « »

§ 3.4.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work of this Contract are to be substantially complete prior to when the entire Work of this Contract shall be substantially complete, the Contractor shall substantially complete such portions by the following dates:

Portion of Work	Date to be substantially complete

§ 3.4.3 If the Contractor fails to substantially complete the Work of this Contract, or portions thereof, as provided in this Section 3.4, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be one of the following:
(Check the appropriate box.)

[« »] Stipulated Sum, in accordance with Section 4.2 below

[« »] Cost of the Work plus the Contractor's Fee, in accordance with Section 4.3 below

[« »] Cost of the Work plus the Contractor's Fee with a Guaranteed Maximum Price, in accordance with Section 4.4 below

(Based on the selection above, complete Section 4.2, 4.3 or 4.4 below.)

§ 4.2 Stipulated Sum

§ 4.2.1 The Contract Sum shall be « » ($ « »), subject to additions and deductions as provided in the Contract Documents.

§ 4.2.2 Alternates

§ 4.2.2.1 Alternates, if any, included in the Contract Sum:

Item	Price

§ 4.2.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement.
(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

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Item	Price	Conditions for Acceptance

§ 4.2.3 Allowances, if any, included in the Contract Sum:
(Identify each allowance.)

Item	Price

§ 4.2.4 Unit prices, if any:
(Identify the item and state the unit price, and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit ($0.00)

§ 4.3 Cost of the Work Plus Contractor's Fee without a Guaranteed Maximum Price

§ 4.3.1 The Cost of the Work is as defined in Exhibit B, Determination of the Cost of the Work.

§ 4.3.2 The Contractor's Fee:
(State a lump sum, percentage of Cost of the Work or other provision for determining the Contractor's Fee.)

« »

§ 4.3.3 The method of adjustment of the Contractor's Fee for changes in the Work:

« »

§ 4.3.4 Limitations, if any, on a Subcontractor's overhead and profit for increases in the cost of its portion of the Work:

« »

§ 4.3.5 Rental rates for Contractor-owned equipment shall not exceed « » percent (« » %) of the standard rental rate paid at the place of the Project.

§ 4.3.6 Unit prices, if any:
(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit ($0.00)

§ 4.3.7 The Contractor shall prepare and submit to the Construction Manager, within 14 days of executing this Agreement, a written Control Estimate for the Owner's review and approval. The Control Estimate shall include the items in Section B.1 of Exhibit B, Determination of the Cost of the Work.

§ 4.4 Cost of the Work Plus Contractor's Fee with a Guaranteed Maximum Price

§ 4.4.1 The Cost of the Work is as defined in Exhibit B, Determination of the Cost of the Work.

§ 4.4.2 The Contractor's Fee:
(State a lump sum, percentage of Cost of the Work or other provision for determining the Contractor's Fee.)

« »

§ 4.4.3 The method of adjustment of the Contractor's Fee for changes in the Work:

« »

§ 4.4.4 Limitations, if any, on a Subcontractor's overhead and profit for increases in the cost of its portion of the Work:

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« »

§ 4.4.5 Rental rates for Contractor-owned equipment shall not exceed « » percent (« » %) of the standard rental rate paid at the place of the Project.

§ 4.4.6 Unit Prices, if any:
(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit ($0.00)

§ 4.4.7 Guaranteed Maximum Price

§ 4.4.7.1 The Contract Sum is guaranteed by the Contractor not to exceed « » ($ « »), subject to additions and deductions by Change Order as provided in the Contract Documents. This maximum sum is referred to in the Contract Documents as the Guaranteed Maximum Price. Costs which would cause the Guaranteed Maximum Price to be exceeded shall be paid by the Contractor without reimbursement by the Owner.

§ 4.4.7.2 Alternates

§ 4.4.7.2.1 Alternates, if any, included in the Guaranteed Maximum Price:

Item	Price

§ 4.4.7.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement.
(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance

§ 4.4.7.3 Allowances, if any, included in the Guaranteed Maximum Price:
(Identify each allowance.)

Item	Price

§ 4.4.7.4 Assumptions, if any, upon which the Guaranteed Maximum Price is based:
(Identify each assumption.)

« »

§ 4.4.8 To the extent that the Contract Documents are anticipated to require further development, the Guaranteed Maximum Price includes the costs attributable to such further development consistent with the Contract Documents and reasonably inferable therefrom. Such further development does not include changes in scope, systems, kinds and quality of materials, finishes, or equipment, all of which, if required, shall be incorporated by Change Order.

§ 4.4.9 The Owner shall authorize preparation of revisions to the Contract Documents that incorporate the agreed-upon assumptions contained in Section 4.4.7.4. The Owner shall promptly furnish such revised Contract Documents to the Contractor. The Contractor shall notify the Owner and Architect of any inconsistencies between the agreed-upon assumptions contained in Section 4.4.7.4 and the revised Contract Documents.

§ 4.5 Liquidated damages, if any:
(Insert terms and conditions for liquidated damages, if any, to be assessed in accordance with Section 3.4.)

« »

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§ 4.6 Other:
(Insert provisions for bonus, cost savings or other incentives, if any, that might result in a change to the Contract Sum.)

« »

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Construction Manager by the Contractor, and Certificates for Payment issued by the Construction Manager and Architect, the Owner shall make progress payments on account of the Contract Sum, to the Contractor, as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

« »

§ 5.1.3 Provided that an Application for Payment is received by the Construction Manager not later than the « » day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the « » day of the « » month. If an Application for Payment is received by the Construction Manager after the application date fixed above, payment of the amount certified shall be made by the Owner not later than « » (« ») days after the Construction Manager receives the Application for Payment.
(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Progress Payments Where the Contract Sum is Based on a Stipulated Sum

§ 5.1.4.1 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Construction Manager and Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.4.2 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.4.3 In accordance with AIA Document A232™–2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.4.3.1 The amount of each progress payment shall first include:

- **.1** That portion of the Contract Sum properly allocable to completed Work;
- **.2** That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- **.3** That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.4.3.2 The amount of each progress payment shall then be reduced by:

- **.1** The aggregate of any amounts previously paid by the Owner;
- **.2** The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A232–2019;
- **.3** Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- **.4** For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A232–2019; and
- **.5** Retainage withheld pursuant to Section 5.1.7.

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§ 5.1.5 Progress Payments Where the Contract Sum is Based on the Cost of the Work without a Guaranteed Maximum Price

§ 5.1.5.1 With each Application for Payment, the Contractor shall submit the cost control information required in Exhibit B, Determination of the Cost of the Work, along with payrolls, petty cash accounts, receipted invoices, or invoices with check vouchers attached, and any other evidence required by the Owner, Construction Manager or Architect to demonstrate that payments already made by the Contractor on account of the Cost of the Work equal or exceed progress payments already received by the Contractor, plus payrolls for the period covered by the present Application for Payment, less that portion of the payments attributable to the Contractor's Fee.

§ 5.1.5.2 Applications for Payment shall show the Cost of the Work actually incurred by the Contractor through the end of the period covered by the Application for Payment and for which the Contractor has made or intends to make actual payment prior to the next Application for Payment.

§ 5.1.5.3 In accordance with AIA Document A232-2019 and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.5.3.1 The amount of each progress payment shall first include:

.1 The Cost of the Work as described in Exhibit B, Determination of the Cost of the Work;

.2 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified; and

.3 The Contractor's Fee computed upon the Cost of the Work described in the preceding Section 5.1.5.3.1.1 at the rate stated in Section 4.3.2; or if the Contractor's Fee is stated as a fixed sum in Section 4.3.2 an amount which bears the same ratio to that fixed-sum Fee as the Cost of the Work included in Section 5.1.5.3.1.1 bears to a reasonable estimate of the probable Cost of the Work upon its completion.

§ 5.1.5.3.2 The amount of each progress payment shall then be reduced by:

.1 The aggregate of any amounts previously paid by the Owner;

.2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A232–2019;

.3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;

.4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A232–2019;

.5 The shortfall, if any, indicated by the Contractor in the documentation required by Section 5.1.5.1 to substantiate prior Applications for Payment, or resulting from errors subsequently discovered by the Owner's auditors in such documentation; and

.6 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.5.4 The Owner, Construction Manager and Contractor shall agree upon a mutually acceptable procedure for review and approval of payments to Subcontractors and the percentage of retainage held on Subcontracts, and the Contractor shall execute subcontracts in accordance with those agreements.

§ 5.1.5.5 In taking action on the Contractor's Applications for Payment, the Construction Manager and Architect shall be entitled to rely on the accuracy and completeness of the information furnished by the Contractor, and such action shall not be deemed to be a representation that (1) the Construction Manager and Architect have made a detailed examination, audit or arithmetic verification of the documentation submitted in accordance with Article 5 or other supporting data; (2) that the Construction Manager and Architect have made exhaustive or continuous on-site inspections; or (3) that the Construction Manager and Architect have made examinations to ascertain how or for what purposes the Contractor has used amounts previously paid on account of the Contract. Such examinations, audits and verifications, if required by the Owner, will be performed by the Owner's auditors acting in the sole interest of the Owner.

§ 5.1.5.6 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.1.5.7 If final completion of the Work is materially delayed through no fault of the Contractor, then the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A232-2019.

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§ 5.1.6 Progress Payments Where the Contract Sum is Based on the Cost of the Work with a Guaranteed Maximum Price

§ 5.1.6.1 With each Application for Payment, the Contractor shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner, Construction Manager or Architect to demonstrate that payments already made by the Contractor on account of the Cost of the Work equal or exceed progress payments already received by the Contractor plus payrolls for the period covered by the present Application for Payment, less that portion of the progress payments attributable to the Contractor's Fee.

§ 5.1.6.2 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Guaranteed Maximum Price among: (1) the various portions of the Work; (2) any contingency for costs that are included in the Guaranteed Maximum Price but not otherwise allocated to another line item or included in a Change Order; and (3) the Contractor's Fee.

§ 5.1.6.2.1 The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Construction Manager and Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.6.2.2 The allocation of the Guaranteed Maximum Price under this Section 5.1.6.2 shall not constitute a separate guaranteed maximum price for the Cost of the Work of each individual line item in the schedule of values.

§ 5.1.6.2.3 When the Contractor allocates costs from a contingency to another line item in the schedule of values, the Contractor shall submit supporting documentation to the Architect and Construction Manager.

§ 5.1.6.3 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment. The percentage of completion shall be the lesser of (1) the percentage of that portion of the Work which has actually been completed; or (2) the percentage obtained by dividing (a) the expense that has actually been incurred by the Contractor on account of that portion of the Work and for which the Contractor has made payment or intends to make payment prior to the next Application for Payment by (b) the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values.

§ 5.1.6.4 In accordance with AIA Document A232-2019, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.4.1 The amount of each progress payment shall first include:

.1 That portion of the Guaranteed Maximum Price properly allocable to completed Work as determined by multiplying the percentage of completion of each portion of the Work by the share of the Guaranteed Maximum Price allocated to that portion of the Work in the most recent schedule of values;

.2 That portion of the Guaranteed Maximum Price properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction or, if approved in writing in advance by the Owner, suitably stored off the site at a location agreed upon in writing;

.3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified; and

.4 The Contractor's Fee, computed upon the Cost of the Work described in the preceding Sections 5.1.6.4.1.1 and 5.1.6.4.1.2 at the rate stated in Section 4.4.2 or, if the Contractor's Fee is stated as a fixed sum in that Section, an amount that bears the same ratio to that fixed-sum fee as the Cost of the Work included in Sections 5.1.6.4.1.1 and 5.1.6.4.1.2 bears to a reasonable estimate of the probable Cost of the Work upon its completion.

§ 5.1.6.4.2 The amount of each progress payment shall then be reduced by:

.1 The aggregate of any amounts previously paid by the Owner;

.2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A232–2019;

.3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;

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.4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A232–2019;

.5 The shortfall, if any, indicated by the Contractor in the documentation required by Section 5.1.6.1 to substantiate prior Applications for Payment, or resulting from errors subsequently discovered by the Owner's auditors in such documentation; and

.6 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.6.5 The Owner and the Contractor shall agree upon a mutually acceptable procedure for review and approval of payments to Subcontractors and the percentage of retainage held on Subcontracts, and the Contractor shall execute subcontracts in accordance with those agreements.

§ 5.1.6.6 In taking action on the Contractor's Applications for Payment, the Construction Manager and Architect shall be entitled to rely on the accuracy and completeness of the information furnished by the Contractor and such action shall not be deemed to be a representation that (1) the Construction Manager or Architect have made a detailed examination, audit, or arithmetic verification of the documentation submitted in accordance with Section 5.1.6.1 or other supporting data; (2) that the Construction Manager or Architect have made exhaustive or continuous on-site inspections; or (3) that the Construction Manager or Architect have made examinations to ascertain how or for what purposes the Contractor has used amounts previously paid on account of the Contract. Such examinations, audits, and verifications, if required by the Owner, will be performed by the Owner's auditors acting in the sole interest of the Owner.

§ 5.1.6.7 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.1.6.8 If final completion of the Work is materially delayed through no fault of the Contractor, then the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A232-2019.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to when the Work of this Contract is substantially complete, the Owner may withhold the following amount, as retainage, from the payment otherwise due:
(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

« »

§ 5.1.7.1.1 The following items are not subject to retainage:
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

« »

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:
(If the retainage established in Section 5.1.7.1 is to be modified prior to when the entire Work of this Contract is substantially complete, including modifications for completion of portions of the Work as provided in Section 3.4.2, insert provisions for such modifications.)

« »

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, when the Work of this Contract is substantially complete, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted when the Work of this Contract is substantially complete shall not include retainage as follows:
(Insert any other conditions for release of retainage when the Work of this Contract is substantially complete, or upon Substantial Completion of the Work of all Contractors on the Project or portions thereof.)

« »

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§ 5.2 Final Payment

§ 5.2.1 Final Payment Where the Contract Sum is Based on a Stipulated Sum

§ 5.2.1.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

.1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A232–2019, and to satisfy other requirements, if any, which extend beyond final payment; and

.2 a final Certificate for Payment or Project Certificate for Payment has been issued by the Architect.

§ 5.2.1.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the final Certificate for Payment or Project Certificate for Payment, or as follows:

« »

§ 5.2.2 Final Payment Where the Contract Sum is Based on the Cost of the Work with or without a Guaranteed Maximum Price

§ 5.2.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

.1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A232–2019, and to satisfy other requirements, if any, which extend beyond final payment;

.2 the Contractor has submitted a final accounting for the Cost of the Work, pursuant to Exhibit B, Determination of the Cost of the Work and a final Application for Payment; and

.3 a final Certificate for Payment or Project Certificate for Payment has been issued by the Architect in accordance with Exhibit B, Determination of the Cost of the Work.

§ 5.2.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the final Certificate for Payment or Project Certificate for Payment, or as follows:

« »

§ 5.3 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.
(Insert rate of interest agreed upon, if any.)

« » % « »

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as Initial Decision Maker pursuant to Article 15 of AIA Document A232–2019, unless the parties appoint below another individual, not a party to this Agreement, to serve as Initial Decision Maker.
(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

« »
« »
« »
« »

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A232–2019, the method of binding dispute resolution shall be as follows:
(Check the appropriate box.)

[« »] Arbitration pursuant to Article 15 of AIA Document A232–2019.

[« »] Litigation in a court of competent jurisdiction.

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[« »] Other: *(Specify)*

« »

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 Where the Contract Sum is a Stipulated Sum

§ 7.1.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A232–2019.

§ 7.1.1.1 If the Contract is terminated for the Owner's convenience in accordance with Article 14 of AIA Document A232–2019, then the Owner shall pay the Contractor a termination fee as follows:
(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner's convenience.)

« »

§ 7.1.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A232–2019.

§ 7.2 Where the Contract Sum is Based on the Cost of the Work with or without a Guaranteed Maximum Price

§ 7.2.1 Termination

§ 7.2.1.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A232–2019.

§ 7.2.1.2 Termination by the Owner for Cause

§ 7.2.1.2.1 If the Owner terminates the Contract for cause as provided in Article 14 of AIA Document A232–2019, the Owner shall then only pay the Contractor an amount as follows:

.1 Take the Cost of the Work incurred by the Contractor to the date of termination;

.2 Add the Contractor's Fee, computed upon the Cost of the Work to the date of termination at the rate stated in Section 4.3.2 or 4.4.2, as applicable, or, if the Contractor's Fee is stated as a fixed sum in that Section, an amount that bears the same ratio to that fixed-sum Fee as the Cost of the Work at the time of termination bears to a reasonable estimate of the probable Cost of the Work upon its completion;

.3 Subtract the aggregate of previous payments made by the Owner; and

.4 Subtract the costs and damages incurred, or to be incurred, by the Owner under Article 14 of AIA Document A232–2019.

§ 7.2.1.2.2 When the Contract Sum is based on the Cost of the Work with a Guaranteed Maximum Price, if the Owner terminates the Contract for cause as provided in Article 14 of AIA Document A232-2019, the amount, if any, to be paid to the Contractor under Article 14 of AIA Document A232-2019 shall not cause the Guaranteed Maximum Price to be exceeded, nor shall it exceed the amount calculated in Section 7.2.1.2.1.

§ 7.2.1.2.3 The Owner shall also pay the Contractor fair compensation, either by purchase or rental at the election of the Owner, for any equipment owned by the Contractor that the Owner elects to retain and that is not otherwise included in the Cost of the Work under Section 7.2.1.2.1.1. To the extent that the Owner elects to take legal assignment of subcontracts and purchase orders (including rental agreements), the Contractor shall, as a condition of receiving the payments referred to in this Article 7, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Contractor, as the Owner may require for the purpose of fully vesting in the Owner the rights and benefits of the Contractor under such subcontracts or purchase orders. All Subcontracts, purchase orders and rental agreements entered into by the Contractor will contain provisions allowing for assignment to the Owner as described above.

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§ 7.2.1.3 Termination by the Owner for Convenience

If the Owner terminates the Contract for convenience in accordance with Article 14 of AIA Document A232–2019, then the Owner shall pay the Contractor a termination fee as follows:

(Insert the amount of or method for determining the fee, if any, payable to the Contractor following a termination for the Owner's convenience.)

« »

§ 7.3 Suspension

The Work may be suspended by the Owner as provided in Article 14 of AIA Document A232–2019; in such case, the Contract Sum and Contract Time shall be increased as provided in Article 14 of AIA Document A232–2019, except that the term "profit" shall be understood to mean the Contractor's Fee as described in Section 4.3.2 or 4.4.2, as applicable, of this Agreement.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A232–2019 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner's representative:

(Name, address, email address, and other information)

« »
« »
« »
« »
« »
« »

§ 8.3 The Contractor's representative:

(Name, address, email address, and other information)

« »
« »
« »
« »
« »
« »

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A132™–2019, Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A132™–2019, Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A232–2019, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

« »

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§ 8.7 Relationship of the Parties

Where the Contract is based on the Cost of the Work plus the Contractor's Fee, with or without a Guaranteed Maximum Price, the Contractor accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Contractor's skill and judgment in furthering the interests of the Owner; to furnish efficient business administration and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner's interests. The Owner agrees to furnish and approve, in a timely manner, information required by the Contractor and to make payments to the Contractor in accordance with the requirements of the Contract Documents.

§ 8.8 Other provisions:

« »

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

.1 AIA Document A132™–2019, Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition

.2 AIA Document A132™–2019, Exhibit A, Insurance and Bonds Exhibit

.3 AIA Document A232™–2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition

.4 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:
(Insert the date of the E203-2013 incorporated into this Agreement.)

« »

.5 Drawings

Number	Title	Date

.6 Specifications

Section	Title	Date	Pages

.7 Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:
(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

[« »] AIA Document A132™–2019, Exhibit B, Determination of the Cost of the Work

[« »] AIA Document E235™–2019, Sustainable Projects Exhibit, Construction Manager as Adviser Edition, dated as indicated below:
(Insert the date of the E235-2019 incorporated into this Agreement.)

« »

[« »] The Sustainability Plan:

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Title	Date	Pages

[« »] Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

.9 Other documents, if any, listed below:
(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A232–2019 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

« »

This Agreement is entered into as of the day and year first written above.

OWNER *(Signature)*	**CONTRACTOR** *(Signature)*
« »« »	« »« »
(Printed name and title)	*(Printed name and title)*

DRAFT

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SECTION 00 54 13

SUPPLEMENT TO AGREEMENT BETWEEN OWNER AND CONTRACTOR A132-2019

The following supplements modify the "Standard Form of Agreement Between Owner and Contractor, Construction Manager as Advisor Edition" AIA Document A132-2019. Where a portion of the Standard Form of Agreement is modified or deleted by the following, the unaltered portions of the Standard Form of Agreement shall remain in effect.

ARTICLE 3: DATE OF COMMENCEMENT AND DATES OF SUBSTANTIAL COMPLETION

3.1 Delete paragraph 3.1 in its entirety and replace with the following:

"The date of Commencement of the Work shall be a date set forth in a notice to proceed issued by the Owner."

3.3.1 In the space provided, insert "As defined in Article 9.8 of AIA Document A232-2019 and amended by the Owner's 'Supplementary General Conditions A232-2019'"

ARTICLE 4: CONTRACT SUM

4.1 Delete paragraph 4.1 in its entirety and replace with the following:

"The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be a Stipulated Sum, in accordance with Section 4.2 below.

4.3 Delete paragraph 4.3 in its entirety.

4.4 Delete paragraph 4.4 in its entirety.

ARTICLE 5: PAYMENTS

5.1 PROGRESS PAYMENTS

5.1.3 Delete paragraph 5.1.3 in its entirety and replace with the following:

"Provided that a valid Application for Payment is received by the Architect that meets all requirements of the Contract, payment shall be made by the Owner not later than 30 days after the Owner receives the valid Application for Payment."

5.1.5 Delete paragraph 5.1.5 in its entirety.

5.1.6 Delete paragraph 5.1.6 in its entirety.

5.2.2 Delete paragraph 5.2.2 in its entirety.

5.3 Insert the interest rate of "1% per month not to exceed 12% per annum."

ARTICLE 6: DISPUTE RESOLUTION

6.2 BINDING DISPUTE RESOLUTION

Check the box “Other” – and add the following sentence:

"Any remedies available in law or in equity."

ARTICLE 7: TERMINATION or SUSPENSION

7.1.1.1 Delete paragraph 7.1.1.1 in its entirety.

7.2 Delete paragraph 7.2 in its entirety.

ARTICLE 8: MISCELLANEOUS PROVISIONS

8.4 Delete paragraph 8.4 in its entirety and replace with the following:

“The Contractor’s representative shall not be changed without ten days written notice to the Owner.”

8.7 Delete paragraph 8.7 in its entirety.

ARTICLE 9: ENUMERATION OF CONTRACT DOCUMENTS

9.1.9 Insert “Supplement to Agreement Between Owner and Contractor A132-2019”

9.1.9 Insert “Supplementary General Conditions A232-2019”

END OF SECTION

DRAFT **AIA® Document A132® – 2019**

Exhibit A

Insurance and Bonds

This Insurance and Bonds Exhibit is part of the Agreement, between the Owner and the Contractor, dated the « » day of « » in the year « »
(In words, indicate day, month, and year.)

for the following **PROJECT**:
(Name and location or address)

Colonial School District
William Penn High School
713 E Basin Road
New Castle DE 19720

THE OWNER:
(Name, legal status, and address)

Colonial School District
318 Basin Rd
New Castle, DE 19720

THE CONTRACTOR:
(Name, legal status, and address)

« »« »
« »

TABLE OF ARTICLES

A.1 GENERAL

A.2 OWNER'S INSURANCE

A.3 CONTRACTOR'S INSURANCE AND BONDS

A.4 SPECIAL TERMS AND CONDITIONS

ARTICLE A.1 GENERAL

The Owner and Contractor shall purchase and maintain insurance, and provide bonds, as set forth in this Exhibit. As used in this Exhibit, the term General Conditions refers to AIA Document A232™–2019, General Conditions of the Contract for Construction.

ARTICLE A.2 OWNER'S INSURANCE

§ A.2.1 General

Prior to commencement of the Work, the Owner shall secure the insurance, and provide evidence of the coverage, required under this Article A.2 and, upon the Contractor's request, provide a copy of the property insurance policy or policies required by Section A.2.3. The copy of the policy or policies provided shall contain all applicable conditions, definitions, exclusions, and endorsements.

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.

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

This document is intended to be used in conjunction with AIA Document A232™–2019, General Conditions of the Contract for Construction. Article 11 of A232™–2019 contains additional insurance provisions

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§ A.2.2 Liability Insurance
The Owner shall be responsible for purchasing and maintaining the Owner's usual general liability insurance.

§ A.2.3 Required Property Insurance
§ A.2.3.1 Unless this obligation is placed on the Contractor pursuant to Section A.3.3.2.1, the Owner shall purchase and maintain, from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located, property insurance written on a builder's risk "all-risks" completed value or equivalent policy form and sufficient to cover the total value of the entire Project on a replacement cost basis. The Owner's property insurance coverage shall be no less than the amount of the initial Contract Sum, plus the value of subsequent Modifications and labor performed and materials or equipment supplied by others. The property insurance shall be maintained until Substantial Completion and thereafter as provided in Section A.2.3.1.3, unless otherwise provided in the Contract Documents or otherwise agreed in writing by the parties to this Agreement. This insurance shall include the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors in the Project as insureds. This insurance shall include the interests of mortgagees as loss payees.

§ A.2.3.1.1 Causes of Loss. The insurance required by this Section A.2.3.1 shall provide coverage for direct physical loss or damage, and shall not exclude the risks of fire, explosion, theft, vandalism, malicious mischief, collapse, earthquake, flood, or windstorm. The insurance shall also provide coverage for ensuing loss or resulting damage from error, omission, or deficiency in construction methods, design, specifications, workmanship, or materials. Sub-limits, if any, are as follows:
(Indicate below the cause of loss and any applicable sub-limit.)

Causes of Loss	Sub-Limit

§ A.2.3.1.2 Specific Required Coverages. The insurance required by this Section A.2.3.1 shall provide coverage for loss or damage to false work and other temporary structures, and to building systems from testing and startup. The insurance shall also cover debris removal, including demolition occasioned by enforcement of any applicable legal requirements, and reasonable compensation for the Architect's, Construction Manager's, and Contractor's services and expenses required as a result of such insured loss, including claim preparation expenses. Sub-limits, if any, are as follows:
(Indicate below type of coverage and any applicable sub-limit for specific required coverages.)

Coverage	Sub-Limit

§ A.2.3.1.3 Unless the parties agree otherwise, upon Substantial Completion, the Owner shall continue the insurance required by Section A.2.3.1 or, if necessary, replace the insurance policy required under Section A.2.3.1 with property insurance written for the total value of the Project that shall remain in effect until expiration of the period for correction of the Work set forth in Section 12.2.2 of the General Conditions.

§ A.2.3.1.4 Deductibles and Self-Insured Retentions. If the insurance required by this Section A.2.3 is subject to deductibles or self-insured retentions, the Owner shall be responsible for all loss not covered because of such deductibles or retentions.

§ A.2.3.2 Occupancy or Use Prior to Substantial Completion. The Owner's occupancy or use of any completed or partially completed portion of the Work prior to Substantial Completion shall not commence until the insurance company or companies providing the insurance under Section A.2.3.1 have consented in writing to the continuance of coverage. The Owner and the Contractor shall take no action with respect to partial occupancy or use that would cause cancellation, lapse, or reduction of insurance, unless they agree otherwise in writing.

§ A.2.3.3 Insurance for Existing Structures
If the Work involves remodeling an existing structure or constructing an addition to an existing structure, the Owner shall purchase and maintain, until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, "all-risks" property insurance, on a replacement cost basis, protecting the existing structure against direct physical loss or damage from the causes of loss identified in Section A.2.3.1, notwithstanding the undertaking of the Work. The Owner shall be responsible for all co-insurance penalties.

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User Notes: (1311787896)

§ A.2.4 Optional Extended Property Insurance.
The Owner shall purchase and maintain the insurance selected and described below.
(Select the types of insurance the Owner is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. For each type of insurance selected, indicate applicable limits of coverage or other conditions in the fill point below the selected item.)

[X] **§ A.2.4.1 Loss of Use, Business Interruption, and Delay in Completion Insurance**, to reimburse the Owner for loss of use of the Owner's property, or the inability to conduct normal operations due to a covered cause of loss.

« »

[X] **§ A.2.4.2 Ordinance or Law Insurance**, for the reasonable and necessary costs to satisfy the minimum requirements of the enforcement of any law or ordinance regulating the demolition, construction, repair, replacement or use of the Project.

« »

[X] **§ A.2.4.3 Expediting Cost Insurance**, for the reasonable and necessary costs for the temporary repair of damage to insured property, and to expedite the permanent repair or replacement of the damaged property.

« »

[X] **§ A.2.4.4 Extra Expense Insurance**, to provide reimbursement of the reasonable and necessary excess costs incurred during the period of restoration or repair of the damaged property that are over and above the total costs that would normally have been incurred during the same period of time had no loss or damage occurred.

« »

[X] **§ A.2.4.5 Civil Authority Insurance**, for losses or costs arising from an order of a civil authority prohibiting access to the Project, provided such order is the direct result of physical damage covered under the required property insurance.

« »

[X] **§ A.2.4.6 Ingress/Egress Insurance**, for loss due to the necessary interruption of the insured's business due to physical prevention of ingress to, or egress from, the Project as a direct result of physical damage.

« »

[X] **§ A.2.4.7 Soft Costs Insurance**, to reimburse the Owner for costs due to the delay of completion of the Work, arising out of physical loss or damage covered by the required property insurance: including construction loan fees; leasing and marketing expenses; additional fees, including those of architects, engineers, consultants, attorneys and accountants, needed for the completion of the construction, repairs, or reconstruction; and carrying costs such as property taxes, building permits, additional interest on loans, realty taxes, and insurance premiums over and above normal expenses.

« »

§ A.2.5 Other Optional Insurance.
The Owner shall purchase and maintain the insurance selected below.

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(Select the types of insurance the Owner is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance.)

[X] **§ A.2.5.1 Cyber Security Insurance** for loss to the Owner due to data security and privacy breach, including costs of investigating a potential or actual breach of confidential or private information. *(Indicate applicable limits of coverage or other conditions in the fill point below.)*

« »

[X] **§ A.2.5.2 Other Insurance**
(List below any other insurance coverage to be provided by the Owner and any applicable limits.)

Coverage	Limits

ARTICLE A.3 CONTRACTOR'S INSURANCE AND BONDS

§ A.3.1 General

§ A.3.1.1 Certificates of Insurance. The Contractor shall provide certificates of insurance acceptable to the Owner evidencing compliance with the requirements in this Article A.3 at the following times: (1) prior to commencement of the Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Owner's written request. An additional certificate evidencing continuation of commercial liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment and thereafter upon renewal or replacement of such coverage until the expiration of the periods required by Section A.3.2.1 and Section A.3.3.1. The certificates will show the Owner as an additional insured on the Contractor's Commercial General Liability and excess or umbrella liability policy or policies.

§ A.3.1.2 Deductibles and Self-Insured Retentions. The Contractor shall disclose to the Owner any deductible or self- insured retentions applicable to any insurance required to be provided by the Contractor.

§ A.3.1.3 Additional Insured Obligations. To the fullest extent permitted by law, the Contractor shall cause the commercial general liability coverage to include (1) the Owner, the Architect and the Architect's consultants, and the Construction Manager and the Construction Manager's consultants, as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions for which loss occurs during completed operations. The additional insured coverage shall be primary and non-contributory to any of the Owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) forms CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's consultants, and the Construction Manager and the Construction Manager's consultants, CG 20 32 07 04.

§ A.3.2 Contractor's Required Insurance Coverage

§ A.3.2.1 The Contractor shall purchase and maintain the following types and limits of insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:
(If the Contractor is required to maintain insurance for a duration other than the expiration of the period for correction of Work, state the duration.)

« »

§ A.3.2.2 Commercial General Liability

§ A.3.2.2.1 Commercial General Liability insurance for the Project written on an occurrence form with policy limits of not less than One Millions Dollars ($ 1,000,000) each occurrence, Three Million Dollars ($ 3,000,000) general aggregate, and Three Million Dollars ($ 3,000,000) aggregate for products-completed operations hazard, providing coverage for claims including

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.1 damages because of bodily injury, sickness or disease, including occupational sickness or disease, and death of any person;
.2 personal injury and advertising injury;
.3 damages because of physical damage to or destruction of tangible property, including the loss of use of such property;
.4 bodily injury or property damage arising out of completed operations; and
.5 the Contractor's indemnity obligations under Section 3.18 of the General Conditions.

§ A.3.2.2.2 The Contractor's Commercial General Liability policy under this Section A.3.2.2 shall not contain an exclusion or restriction of coverage for the following:

.1 Claims by one insured against another insured, if the exclusion or restriction is based solely on the fact that the claimant is an insured, and there would otherwise be coverage for the claim.
.2 Claims for property damage to the Contractor's Work arising out of the products-completed operations hazard where the damaged Work or the Work out of which the damage arises was performed by a Subcontractor.
.3 Claims for bodily injury other than to employees of the insured.
.4 Claims for indemnity under Section 3.18 of the General Conditions arising out of injury to employees of the insured.
.5 Claims or loss excluded under a prior work endorsement or other similar exclusionary language.
.6 Claims or loss due to physical damage under a prior injury endorsement or similar exclusionary language.
.7 Claims related to residential, multi-family, or other habitational projects, if the Work is to be performed on such a project.
.8 Claims related to roofing, if the Work involves roofing.
.9 Claims related to exterior insulation finish systems (EIFS), synthetic stucco or similar exterior coatings or surfaces, if the Work involves such coatings or surfaces.
.10 Claims related to earth subsidence or movement, where the Work involves such hazards.
.11 Claims related to explosion, collapse and underground hazards, where the Work involves such hazards.

§ A.3.2.3 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than One Million Dollars ($ 1,000,000) per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles along with any other statutorily required automobile coverage.

§ A.3.2.4 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella insurance policies result in the same or greater coverage as the coverages required under Section A.3.2.2 and A.3.2.3, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ A.3.2.5 Workers' Compensation at statutory limits.

§ A.3.2.6 Employers' Liability with policy limits not less than Five Hundred Thousand Dollars ($ 500,000) each accident, Five Hundred Thousand Dollars ($ 500,000) each employee, and Five Hundred Thousand Dollars ($ 500,000) policy limit.

§ A.3.2.7 Jones Act, and the Longshore & Harbor Workers' Compensation Act, as required, if the Work involves hazards arising from work on or near navigable waterways, including vessels and docks

§ A.3.2.8 If the Contractor is required to furnish professional services as part of the Work, the Contractor shall procure Professional Liability insurance covering performance of the professional services, with policy limits of not less than One Million Dollars ($ 1,000,000) per claim and Three Million Dollars ($ 3,000,000) in the aggregate.

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§ A.3.2.9 If the Work involves the transport, dissemination, use, or release of pollutants, the Contractor shall procure Pollution Liability insurance, with policy limits of not less than One Million Dollars ($ 1,000,000) per claim and Three Million Dollars ($ 3,000,000) in the aggregate.

§ A.3.2.10 Coverage under Sections A.3.2.8 and A.3.2.9 may be procured through a Combined Professional Liability and Pollution Liability insurance policy, with combined policy limits of not less than « » ($ « ») per claim and « » ($ « ») in the aggregate.

§ A.3.2.11 Insurance for maritime liability risks associated with the operation of a vessel, if the Work requires such activities, with policy limits of not less than « » ($ « ») per claim and « » ($ « ») in the aggregate.

§ A.3.2.12 Insurance for the use or operation of manned or unmanned aircraft, if the Work requires such activities, with policy limits of not less than « » ($ « ») per claim and « » ($ « ») in the aggregate.

§ A.3.3 Contractor's Other Insurance Coverage

§ A.3.3.1 Insurance selected and described in this Section A.3.3 shall be purchased from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:

(If the Contractor is required to maintain any of the types of insurance selected below for a duration other than the expiration of the period for correction of Work, state the duration.)

« »

§ A.3.3.2 The Contractor shall purchase and maintain the following types and limits of insurance in accordance with Section A.3.3.1.

(Select the types of insurance the Contractor is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. Where policy limits are provided, include the policy limit in the appropriate fill point.)

[« »] **§ A.3.3.2.1** If there is only one Contractor performing the Work on the Project, property insurance of the same type and scope satisfying the requirements identified in Section A.2.3, which, if selected in this section A.3.3.2.1, relieves the Owner of the responsibility to purchase and maintain such insurance except insurance required by Section A.2.3.1.3 and Section A.2.3.3. The Contractor shall comply with all obligations of the Owner under Section A.2.3 except to the extent provided below. The Contractor shall disclose to the Owner the amount of any deductible, and the Owner shall be responsible for losses within the deductible. Upon request, the Contractor shall provide the Owner with a copy of the property insurance policy or policies required. The Owner shall adjust and settle the loss with the insurer and be the trustee of the proceeds of the property insurance in accordance with Article 11 of the General Conditions unless otherwise set forth below:

(Where the Contractor's obligation to provide property insurance differs from the Owner's obligations as described under Section A.2.3, indicate such differences in the space below. Additionally, if a party other than the Owner will be responsible for adjusting and settling a loss with the insurer and acting as the trustee of the proceeds of property insurance in accordance with Article 11 of the General Conditions, indicate the responsible party below.)

« »

[« »] **§ A.3.3.2.2 Railroad Protective Liability Insurance**, with policy limits of not less than « » ($ « ») per claim and « » ($ « ») in the aggregate, for Work within fifty (50) feet of railroad property.

[« »] **§ A.3.3.2.3 Asbestos Abatement Liability Insurance**, with policy limits of not less than « » ($ « ») per claim and « » ($ « ») in the aggregate, for liability arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos-containing materials.

[« »] **§ A.3.3.2.4** Insurance for physical damage to property while it is in storage and in transit to the construction site on an "all-risks" completed value form.

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[« »] **§ A.3.3.2.5** Property insurance on an "all-risks" completed value form, covering property owned by the Contractor and used on the Project, including scaffolding and other equipment.

[« »] **§ A.3.3.2.6 Other Insurance**
(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)

Coverage	Limits

§ A.3.4 Performance Bond and Payment Bond
The Contractor shall provide surety bonds, from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located, as follows:
(Specify type and penal sum of bonds.)

Type	Penal Sum ($0.00)
Payment Bond	« »
Performance Bond	

Payment and Performance Bonds shall be AIA Document A312™, Payment Bond and Performance Bond, or contain provisions identical to AIA Document A312™, current as of the date of this Agreement.

ARTICLE A.4 SPECIAL TERMS AND CONDITIONS
Special terms and conditions that modify this Insurance and Bonds Exhibit, if any, are as follows:

« »

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SECTION 00 54 14

SUPPLEMENT TO A132-2019 – EXHIBIT A - INSURANCE AND BONDS

The following supplements modify the "Standard Form of Agreement Between Owner and Contractor, *Construction Manager as Adviser Edition*" AIA Document A132-2019 Exhibit A Insurance and Bonds. Where a portion of the Standard Form of Agreement, Exhibit A is modified or deleted by the following, the unaltered portions of the Standard Form of Agreement, Exhibit A shall remain in effect.

ARTICLE A.2 OWNER'S INSURANCE

A.2.1 General

Delete paragraph A.2.1 in its entirety.

A.2.2 Liability Insurance

Delete paragraph A.2.2 in its entirety, except in the case of school projects this paragraph shall remain.

A.2.3 Required Property Insurance

Delete paragraph A.2.3 in its entirety.

A.2.4 Optional Extended Property Insurance

Delete paragraph A.2.4 in its entirety.

A.2.5 Other Optional Insurance

Delete paragraph A.2.5 in its entirety.

ARTICLE A.3 CONTRACTORS INSURANCE AND BONDS

A.3.1.1 Strike the last sentence of the paragraph.

A.3.1.3 Additional Insured Obligations

In the first sentence after "coverage to include (1)" delete "(1) the Owner,".

Strike the remainder of the first sentence beginning at the semicolon "; and (2) the Owner" through the end of the sentence.

Delete the second sentence in its entirety.

A.3.2.2.1 Insert "$1,000,000.00" in the blank for each occurrence.
Insert "$3,000,000.00" in the blank for general aggregate.
Insert "$3,000,000.00" in the blank for aggregate for products-completed operations hazard.

A.3.2.3 Insert "$1,000,000.00" in the blank for per accident.

A.3.2.6 Insert “$500,000.00” in the blank for each accident.
Insert “$500,000.00” in the blank for each employee.
Insert “$500,000.00” in the blank for policy limit.

A.3.2.8 Insert “$1,000,000.00” in the blank for per claim.
Insert “$3,000,000.00” in the blank for in the aggregate.

A.3.2.9 Insert “$1,000,000.00” in the blank for per claim.
Insert “$3,000,000.00” in the blank for in the aggregate.

A.3.2.10 Insert “$2,000,000.00” in the blank for per claim.
Insert “$4,000,000.00” in the blank for in the aggregate.

A.3.2.11 Strike in its entirety.

A.3.2.12 Strike in its entirety.

A.3.3.2.1 Delete paragraph 3.3.2.1 in its entirety

A.3.3.2.2 Strike in its entirety.

A.3.3.2.3 Insert “$1,000,000.00” in the blanks for per claim.
Insert “$3,000,000.00” in the blanks for in the aggregate.

A.3.4 Insert the actual contract price in both the Payment Bond and the Performance Bond Penal Sum blanks. It must be 100% of the contract price.

Strike the last sentence in this section and replace with “Payment and Performance Bonds shall be in the standard form issued by the Delaware Office of Management and Budget.”

END OF SECTION

SECTION 006113 – PERFORMANCE AND PAYMENT BONDS

1. PERFORMANCE AND PAYMENT BONDS

   A. Bonds must be in the following form:

      1. Form of Performance Bond (attached).
      2. Form of Payment Bond (attached).

END OF SECTION

STATE OF DELAWARE
OFFICE OF MANAGEMENT AND BUDGET

PERFORMANCE BOND

Bond Number: _____

KNOW ALL PERSONS BY THESE PRESENTS, that we, _____, as principal ("**Principal**"), and _____, a _____ corporation, legally authorized to do business in the State of Delaware, as surety ("**Surety**"), are held and firmly bound unto the _____ ("**Owner**") (***Colonial School District***), in the amount of _____ ($_____), to be paid to **Owner**, for which payment well and truly to be made, we do bind ourselves, our and each and every of our heirs, executors, administrations, successors and assigns, jointly and severally, for and in the whole, firmly by these presents.

Sealed with our seals and dated this _____ day of _____, 20__.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH, that if **Principal**, who has been awarded by **Owner** that certain contract known as Contract No. _____ dated the _____ day of _____, 20__ (the "Contract"), which Contract is incorporated herein by reference, shall well and truly provide and furnish all materials, appliances and tools and perform all the work required under and pursuant to the terms and conditions of the Contract and the Contract Documents (as defined in the Contract) or any changes or modifications thereto made as therein provided, shall make good and reimburse **Owner** sufficient funds to pay the costs of completing the Contract that **Owner** may sustain by reason of any failure or default on the part of **Principal**, and shall also indemnify and save harmless **Owner** from all costs, damages and expenses arising out of or by reason of the performance of the Contract and for as long as provided by the Contract; then this obligation shall be void, otherwise to be and remain in full force and effect.

Surety, for value received, hereby stipulates and agrees, if requested to do so by **Owner**, to fully perform and complete the work to be performed under the Contract pursuant to the terms, conditions and covenants thereof, if for any cause **Principal** fails or neglects to so fully perform and complete such work.

Surety, for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of **Surety** and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition or change in or to the Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any work to be performed or any monies due or to become due thereunder; and **Surety** hereby waives notice of any and all such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other

transferees shall have the same effect as to **Surety** as though done or omitted to be done by or in relation to **Principal**.

Surety hereby stipulates and agrees that no modifications, omissions or additions in or to the terms of the Contract shall in any way whatsoever affect the obligation of **Surety** and its bond.

Any proceeding, legal or equitable, under this Bond may be brought in any court of competent jurisdiction in the State of Delaware. Notices to **Surety** or Contractor may be mailed or delivered to them at their respective addresses shown below.

IN WITNESS WHEREOF, **Principal** and **Surety** have hereunto set their hand and seals, and such of them as are corporations have caused their corporate seal to be hereto affixed and these presents to be signed by their duly authorized officers, the day and year first above written.

PRINCIPAL

Name: _____

Witness or Attest: Address: _____

_____ By: _____(SEAL)
Name: Name:
Title:

(Corporate Seal)

SURETY

Name: _____

Witness or Attest: Address: _____

_____ By: _____ (SEAL)
Name: Name:
Title:

(Corporate Seal)

STATE OF DELAWARE
OFFICE OF MANAGEMENT AND BUDGET

PAYMENT BOND

Bond Number: _____

KNOW ALL PERSONS BY THESE PRESENTS, that we, _____, as principal ("**Principal**"), and _____, a _____ corporation, legally authorized to do business in the State of Delaware, as surety ("**Surety**"), are held and firmly bound unto the _____ ("**Owner**") (***Colonial School District***), in the amount of _____ ($_____), to be paid to **Owner**, for which payment well and truly to be made, we do bind ourselves, our and each and every of our heirs, executors, administrations, successors and assigns, jointly and severally, for and in the whole firmly by these presents.

Sealed with our seals and dated this _____ day of_____, 20__.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH, that if **Principal**, who has been awarded by **Owner** that certain contract known as Contract No. _____dated the _____ day of _____, 20__ (the "Contract"), which Contract is incorporated herein by reference, shall well and truly pay all and every person furnishing materials or performing labor or service in and about the performance of the work under the Contract, all and every sums of money due him, her, them or any of them, for all such materials, labor and service for which **Principal** is liable, shall make good and reimburse **Owner** sufficient funds to pay such costs in the completion of the Contract as **Owner** may sustain by reason of any failure or default on the part of **Principal**, and shall also indemnify and save harmless **Owner** from all costs, damages and expenses arising out of or by reason of the performance of the Contract and for as long as provided by the Contract; then this obligation shall be void, otherwise to be and remain in full force and effect.

Surety, for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of **Surety** and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition or change in or to the Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any work to be performed or any monies due or to become due thereunder; and **Surety** hereby waives notice of any and all such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to **Surety** as though done or omitted to be done by or in relation to **Principal**.

Surety hereby stipulates and agrees that no modifications, omission or additions in or to the terms of the Contract shall in any way whatsoever affect the obligation of **Surety** and its bond.

Any proceeding, legal or equitable, under this Bond may be brought in any court of competent jurisdiction in the State of Delaware. Notices to **Surety** or Contractor may be mailed or delivered to them at their respective addresses shown below.

IN WITNESS WHEREOF, **Principal** and **Surety** have hereunto set their hand and seals, and such of them as are corporations have caused their corporate seal to be hereto affixed and these presents to be signed by their duly authorized officers, the day and year first above written.

PRINCIPAL

Name: _____

Witness or Attest: Address: _____

_____ By: _____(SEAL)
Name: Name:
Title:

(Corporate Seal)

SURETY

Name: _____

Witness or Attest: Address: _____

_____ By: _____(SEAL)
Name: Name:
Title:

(Corporate Seal)

SECTION 006216 – CERTIFICATE OF INSURANCE

In conjunction with Insurance Requirements AIA General Conditions, Article 11, the Contractor shall be bound by the following limits of liability insurance (for Contracts under this Bid Pac). The Contractor shall use the standard "ACCORD" for titled "Certificate of Insurance" in submitting his liability insurance limits. The required limits to be inserted in accordance with the sample "ACCORD" form in this section:

GENERAL NOTES

1. Other Insurance

    A. Contractor shall carry any necessary insurance required to cover Owned and Rental equipment that may be necessary for them to use in the performance of the Work.

2. Contractor shall have the following additional items added to his required "ACCORD" form Certificate of Insurance:

    A. Name and Address of Insured (Contractor).

    B. Description of Operations/Locations -

3. Added Insured – Colonial School District & EDiS Company, EDIS Company & Becker Morgan Group

4. Certificate Holder – Colonial School District

Contractors shall note that although not a part of AIA Document A232 - 2019 Edition, these additional articles apply as noted to this Project.

A sample certificate is bound into the Project Manual immediately following this Document.

END OF SECTION

ACORD — CERTIFICATE OF LIABILITY INSURANCE

Date (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
SAMPLE CERTIFICATE	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	PRODUCER CUSTOMER ID #:	

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A:	
	INSURER B:	
	INSURER C:	
	INSURER D:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
X	**GENERAL LIABILITY**	X	X	XXXXXXX	XX/XX/XXXX	XX/XX/XXXX	EACH OCCURENCE	$1,000,000
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea. occurrence)	$100,000
	[ ] CLAIMS-MADE [X] OCCUR						MED EXP (Any one person)	$10,000
	_____						PERSONAL & ADV INJURY	$1,000,000
	_____						GENERAL AGGREGATE	$3,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS – COMP/OP AGG	$3,000,000
	[ ] POLICY [X] PROJECT [ ] LOC							
X	**AUTOMOBILE LIABILITY**	X	X	XXXXXXX	XX/XX/XXXX	XX/XX/XXXX	COMBINED SINGLE LIMIT (Ea. accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	
	ALL OWNED AUTOS						BODILY INJURY (Per accident)	
	SCHEDULED AUTOS						PROPERTY DAMAGE (Per accident)	
	X HIRED AUTOS							
	X NON-OWNED AUTOS							
X	X **UMBRELLA LIAB** [X] OCCUR	X	X	XXXXXXX	XX/XX/XXXX	XX/XX/XXXX	EACH OCCURRENCE	$5,000,000
	EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$5,000,000
	DEDUCTIBLE						EACH OCCURRENCE	
	RETENTION $						AGGREGATE	
X	**WORKERS COMPENSATION**		X	XXXXXXX	XX/XX/XXXX	XX/XX/XXXX	X WC STATUTORY LIMITS [ ] OTH-ER	
	AND EMPLOYERS' LIABILITY Y / N						E.L. EACH ACCIDENT	$500,000
	ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER / MEMBER EXCLUDED? [ ]						E.L. DISEASE - EACH EMPLOYEE	$500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$500,000
X	**POLLUTION LIABILITY (For Hazardous material, site excavation/utility, and building envelope subcontractors)**	X	X	XXXXXXX	XX/XX/XXXX	XX/XX/XXXX	EACH CLAIM	$1,000,000
	X CLAIMS MADE FORM						POLICY AGGREGATE	$3,000,000
X	**PROFESSIONAL LIABILITY (for all Design and Professional Service subcontractors)**			XXXXXXX	XX/XX/XXXX	XX/XX/XXXX	EACH CLAIM	$1,000,000
	X CLAIMS MADE FORM						POLICY AGGREGATE	$3,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Project: Colonial School District – William Penn High School

Added Insured: Colonial School District (CSD); EDiS Company; Becker Morgan Group, as well as any other party as required by contract are listed as additional insureds under all policies (except Workers Compensation and Professional Liability) for all work performed by the named insured. The General Liability and Umbrella/Excess Liability aggregate shall apply on a per-project basis, and all policies shall be primary and non-contributing with respect to any insurance maintained by the additional insureds. Umbrella policy follows form as respects to Additional Insured status on the CGL, Employers Liability and Automobile Liability policies. A waiver of subrogation applies in favor of the additional insureds under all policies.

In addition to the above language, please provide the General Liability, On-going and Completed Operations Additional Insured endorsements with all required additional insureds listed in the Schedule box (if not a blanket policy), the Primary and Non-Contributory Endorsements, and the Waiver of Subrogation endorsements for all policies with all required additional insured entities listed (if not a blanket policy). Provide evidence of no EIFS exclusions, if within scope of work.]

CERTIFICATE HOLDER

Colonial School District
318 Basin Road
New Castle, DE 19720

CANCELLATION

SHOULD ANY OF THE ABOVE-DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

SAMPLE

Professional Liability and Pollution Insurance Requirements

Contract Number	Contract Name	Professional Liability Insurance	Pollution Insurance
Contract B-01:	Concrete and Reinforcing	Yes	Yes
Contract B-02	Structural Steel	Yes	Yes
Contract B-03	Unit Masonry	No	Yes
Contract B-04	General Trades	Yes	Yes
Contract B-05	Metal & EPDM Roofing	Yes	Yes
Contract B-06	Soft Flooring	No	Yes
Contract B-07	Fluid-Applied Flooring	No	Yes
Contract B-08	Painting	No	Yes
Contract B-09	Bleachers and Grandstands	Yes	No
Contract B-10	Fire Protection	Yes	Yes
Contract B-11	Plumbing, HVAC and Controls	Yes	Yes
Contract B-12	Electrical, Lighting, Fire Alarm, Stadium Lighting	Yes	Yes
Contract B-13	Special Systems	No	No
Contract B-14	Testing, Adjusting and Balancing	No	No
Contract B-15	General Labor & Clean-Up	No	No

SECTION 007200 – GENERAL CONDITIONS

1. SUMMARY

   A. The General Conditions for this Project are the American Institute of Architects General Conditions of the Contract for Construction, Construction Manager as Advisor Edition, AIA Document A232 - 2019 Edition.

   B. A copy of AIA Document A232 - 2019 Edition is bound into this Project Manual following this page

END OF SECTION

DRAFT

AIA® Document A232™ – 2019

General Conditions of the Contract for Construction,
Construction Manager as Adviser Edition

for the following PROJECT:
(Name, and location or address)

«Blank AIAs»
« »

THE CONSTRUCTION MANAGER:
(Name, legal status, and address)

« »« »
« »

THE OWNER:
(Name, legal status, and address)

« »« »
« »

THE ARCHITECT:
(Name, legal status, and address)

« »« »
« »

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.

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

This document is intended to be used in conjunction with AIA Documents A132™–2019, Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition; B132™–2019, Standard Form of Agreement Between Owner and Architect, Construction Manager as Adviser Edition; and C132™–2019, Standard Form of Agreement Between Owner and Construction Manager as Adviser.

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

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

§ 1.1.2 The Contract. The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and the Construction Manager or the Construction Manager's consultants, (3) between the Owner and the Architect or the Architect's consultants, (4) between the Contractor and the Construction Manager or the Construction Manager's consultants, (5) between the Owner and a Subcontractor or Sub-subcontractor (6) between the Construction Manager and the Architect, or (7) between any persons or entities other than the Owner and Contractor. The Construction Manager and Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of their duties.

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

§ 1.1.4 The Project. The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by other Contractors, and by the Owner's own forces and Separate Contractors.

§ 1.1.5 Contractors. Contractors are persons or entities, other than the Contractor or Separate Contractors, who perform Work under contracts with the Owner that are administered by the Architect and Construction Manager.

§ 1.1.6 Separate Contractors. Separate Contractors are persons or entities who perform construction under separate contracts with the Owner not administered by the Architect and Construction Manager.

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

§ 1.1.8 The Specifications. The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

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

§ 1.1.10 Initial Decision Maker. The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

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§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

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

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

§ 1.3 Capitalization

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

§ 1.4 Interpretation

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

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™–2013, Building

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Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

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

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

§ 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 Prior to commencement of the Work, and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

§ 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, 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 Contractor may also disclose "confidential" information 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.

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements,

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assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities. Unless otherwise provided under the Contract Documents, the Owner, assisted by the Construction Manager, shall secure and pay for the building permit.

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.3 The Owner shall retain a construction manager adviser lawfully practicing construction management in the jurisdiction where the Project is located. That person or entity is identified as the Construction Manager in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.4 If the employment of the Construction Manager or Architect terminates, the Owner shall employ a successor construction manager or architect to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Construction Manager or Architect, respectively.

§ 2.3.5 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

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

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

§ 2.3.8 The Owner shall forward all communications to the Contractor through the Construction Manager. Other communication shall be made as set forth in Section 4.2.6.

§ 2.4 Owner's Right to Stop the Work

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

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to review by the Construction Manager and prior approval of the Architect, and the Construction Manager or Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Construction Manager's and Architect's and their respective consultants' additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction

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where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

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

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

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

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

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.5, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Construction Manager and Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information submitted to the Construction Manager in such form as the Construction Manager and Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

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

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner, the Construction Manager, and the Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. The Construction Manager shall review the proposed alternative for sequencing, constructability, and coordination impacts on the other Contractors. Unless the Architect or the Construction Manager objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

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

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

§ 3.4 Labor and Materials

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

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

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 Warranty

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

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work or portions thereof provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 Permits, Fees, Notices, and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Owner, assisted by the Construction Manager, shall secure and pay for the building permit. The Contractor shall secure and pay for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions. If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or

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(2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner, Construction Manager, and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect and Construction Manager will promptly investigate such conditions and, if the Architect, in consultation with the Construction Manager, determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect, in consultation with the Construction Manager, determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner, Construction Manager, and Contractor, stating the reasons. If the Owner or Contractor disputes the Architect's determination or recommendation, either party may submit a Claim as provided in Article 15.

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

§ 3.8 Allowances

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

§ 3.8.2 Unless otherwise provided in the Contract Documents:

- **.1** allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- **.2** Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- **.3** whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent

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

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect, through the Construction Manager, of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Construction Manager may notify the Contractor, stating whether the Owner, the Construction Manager, or the Architect (1) has reasonable objection to the proposed superintendent or (2) require additional time for review. Failure of the Construction Manager to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner, Construction Manager, or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

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§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information, and the Construction Manager's use in developing the Project schedule, a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project. The Contractor shall cooperate with the Construction Manager in scheduling and performing the Contractor's Work to avoid conflict with, and as to cause no delay in, the work or activities of other Contractors, or the construction or operations of the Owner's own forces or Separate Contractors.

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

§ 3.10.3 The Contractor shall participate with other Contractors, the Construction Manager, and the Owner in reviewing and coordinating all schedules for incorporation into the Project schedule that is prepared by the Construction Manager. The Contractor shall make revisions to the construction schedule and submittal schedule as deemed necessary by the Construction Manager to conform to the Project schedule.

§ 3.10.4 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner, Construction Manager, and Architect, and incorporated into the approved Project schedule.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Construction Manager, Architect, and Owner, and delivered to the Construction Manager for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data, and Samples

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

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

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

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect and Construction Manager is subject to the limitations of Sections 4.2.10 through 4.2.12. Informational submittals upon which the Construction Manager and Architect are not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Construction Manager or Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Construction Manager, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract

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Documents, in accordance with the Project submittal schedule approved by the Construction Manager and Architect or, in the absence of an approved Project submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of other Contractors, Separate Contractors, or the Owner's own forces. The Contractor shall cooperate with the Construction Manager in the coordination of the Contractor's Shop Drawings, Product Data, Samples, and similar submittals with related documents submitted by other Contractors.

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

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

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

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

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner, the Architect, and the Construction Manager shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Construction Manager shall review submittals for sequencing, constructability, and coordination impacts on other Contractors.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Construction Manager and Architect at the time and in the form specified by the Architect.

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§ 3.13 Use of Site

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

§ 3.13.2 The Contractor shall coordinate the Contractor's operations with, and secure the approval of, the Construction Manager before using any portion of the site.

§ 3.14 Cutting and Patching

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

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner, Separate Contractors, or of other Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner, Separate Contractors, or by other Contractors except with written consent of the Construction Manager, Owner, and such other Contractors or Separate Contractors. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Separate Contractors, other Contractors, or the Owner, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner, or Construction Manager with the Owner's approval, may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

The Contractor shall provide the Owner, Construction Manager, and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

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

§ 3.18 Indemnification

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

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

ARTICLE 4 ARCHITECT AND CONSTRUCTION MANAGER

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 The Construction Manager is the person or entity retained by the Owner pursuant to Section 2.3.3 and identified as such in the Agreement.

§ 4.1.3 Duties, responsibilities, and limitations of authority of the Construction Manager and Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Construction Manager, Architect, and Contractor. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

§ 4.2.1 The Construction Manager and Architect will provide administration of the Contract as described in the Contract Documents and will be the Owner's representatives during construction until the date the Architect issues the final Certificate for Payment. The Construction Manager and Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of the site visits, the Architect will keep the Owner and the Construction Manager reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner and Construction Manager known deviations from the Contract Documents and defects and deficiencies observed in the Work.

§ 4.2.3 The Construction Manager shall provide one or more representatives who shall be in attendance at the Project site whenever the Work is being performed. The Construction Manager will determine in general if the Work observed is being performed in accordance with the Contract Documents, will keep the Owner and Architect reasonably informed of the progress of the Work, and will promptly report to the Owner and Architect known deviations from the Contract Documents and the most recent Project schedule, and defects and deficiencies observed in the Work.

§ 4.2.4 The Construction Manager will schedule and coordinate the activities of the Contractor and other Contractors in accordance with the latest approved Project schedule.

§ 4.2.5 The Construction Manager, except to the extent required by Section 4.2.4, and Architect will not have control over, charge of, or responsibility for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, and neither will be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. Neither the Construction Manager nor the Architect will have control over or charge of, or be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or of any other persons or entities performing portions of the Work.

§ 4.2.6 Communications. The Owner shall communicate with the Contractor and the Construction Manager's consultants through the Construction Manager about matters arising out of or relating to the Contract Documents. The Owner and Construction Manager shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Construction Manager otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with other Contractors shall be

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through the Construction Manager. Communications by and with the Owner's own forces and Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.7 The Construction Manager and Architect will review and certify all Applications for Payment by the Contractor, in accordance with the provisions of Article 9.

§ 4.2.8 The Architect and Construction Manager have authority to reject Work that does not conform to the Contract Documents, and will notify each other about the rejection. Whenever the Construction Manager considers it necessary or advisable, the Construction Manager will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, upon written authorization of the Owner, whether or not the Work is fabricated, installed or completed. The foregoing authority of the Construction Manager will be subject to the provisions of Sections 4.2.18 through 4.2.20 inclusive, with respect to interpretations and decisions of the Architect. However, neither the Architect's nor the Construction Manager's authority to act under this Section 4.2.8 nor a decision made by either of them in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect or the Construction Manager to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons performing any of the Work.

§ 4.2.9 Utilizing the submittal schedule provided by the Contractor, the Construction Manager shall prepare, and revise as necessary, a Project submittal schedule incorporating information from other Contractors, the Owner, Owner's consultants, Owner's Separate Contractors and vendors, governmental agencies, and participants in the Project under the management of the Construction Manager. The Project submittal schedule and any revisions shall be submitted to the Architect for approval.

§ 4.2.10 The Construction Manager will receive and promptly review for conformance with the submittal requirements of the Contract Documents, all submittals from the Contractor such as Shop Drawings, Product Data, and Samples. Where there are other Contractors, the Construction Manager will also check and coordinate the information contained within each submittal received from the Contractor and other Contractors, and transmit to the Architect those recommended for approval. By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Construction Manager represents to the Owner and Architect that the Construction Manager has reviewed and recommended them for approval. The Construction Manager's actions will be taken in accordance with the Project submittal schedule approved by the Architect or, in the absence of an approved Project submittal schedule, with reasonable promptness while allowing sufficient time to permit adequate review by the Architect.

§ 4.2.11 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Upon the Architect's completed review, the Architect shall transmit its submittal review to the Construction Manager.

§ 4.2.12 Review of the Contractor's submittals by the Construction Manager and Architect is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Construction Manager and Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Construction Manager and Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.13 The Construction Manager will prepare Change Orders and Construction Change Directives.

§ 4.2.14 The Construction Manager and the Architect will take appropriate action on Change Orders or Construction Change Directives in accordance with Article 7, and the Architect will have authority to order minor changes in the Work as provided in Section 7.4. The Architect, in consultation with the Construction Manager, will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

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§ 4.2.15 Utilizing the documents provided by the Contractor, the Construction Manager will maintain at the site for the Owner one copy of all Contract Documents, approved Shop Drawings, Product Data, Samples, and similar required submittals, in good order and marked currently to record all changes and selections made during construction. These will be available to the Architect and the Contractor, and will be delivered to the Owner upon completion of the Project.

§ 4.2.16 The Construction Manager will assist the Architect in conducting inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion in conjunction with the Architect pursuant to Section 9.8; and receive and forward to the Owner written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10. The Construction Manager will forward to the Architect a final Application and Certificate for Payment or final Project Application and Project Certificate for Payment upon the Contractor's compliance with the requirements of the Contract Documents.

§ 4.2.17 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Construction Manager of any change in the duties, responsibilities and limitations of authority of the Project representatives.

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

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

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

§ 4.2.21 The Construction Manager will receive and review requests for information from the Contractor, and forward each request for information to the Architect, with the Construction Manager's recommendation. The Architect will review and respond in writing, through the Construction Manager, to requests for information about the Contract Documents. The Construction Manager's recommendation and the Architect's response to each request will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

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

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

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Construction Manager, for review by the Owner, Construction Manager and Architect, of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Construction Manager may notify the Contractor whether the Owner, the Construction Manager or the Architect (1) has reasonable objection to any such proposed person or entity or, (2) requires additional time for review. Failure of the Construction Manager to provide notice within the 14-day period shall constitute notice of no reasonable objection.

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

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

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner, Construction Manager or Architect makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

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

§ 5.4 Contingent Assignment of Subcontracts

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

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

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor Contractor or other entity. If the Owner assigns the subcontract to a successor Contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor Contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction with Own Forces and to Award Other Contracts

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

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§ 6.1.2 When the Owner performs construction or operations with the Owner's own forces or Separate Contractors, the Owner shall provide for coordination of such forces and Separate Contractors with the Work of the Contractor, who shall cooperate with them.

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

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner's own forces, Separate Contractors, Construction Manager and other Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner's own forces, Separate Contractors or other Contractors, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Construction Manager and Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor or other Contractors that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Construction Manager and the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's or other Contractors' completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractors or other Contractors that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs, including costs that are payable to a Separate Contractors or to other Contractors, because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of delays, improperly timed activities, damage to the Work or defective construction by the Owner's own forces, Separate Contractors, or other Contractors.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction, or to property of the Owner, Separate Contractors, or other Contractors as provided in Section 10.2.5.

§ 6.2.5 The Owner, Separate Contractors, and other Contractors shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, other Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Construction Manager, with notice to the Architect, will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

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

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

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

§ 7.2 Change Orders

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

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

§ 7.3 Construction Change Directives

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

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

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

.1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
.2 Unit prices stated in the Contract Documents or subsequently agreed upon;
.3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
.4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Construction Manager shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Construction Manager may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

.1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Construction Manager and Architect;
.2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
.3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
.4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
.5 Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

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

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

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Construction Manager and Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Construction Manager and Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Construction Manager and Architect determine to be reasonably justified. The interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

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

§ 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Construction Manager and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Construction Manager that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

ARTICLE 8 TIME

§ 8.1 Definitions

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

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

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

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

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

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

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner, Architect, Construction Manager, or an employee of any of them, or of the Owner's own forces, Separate Contractors, or other Contractors; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section

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15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts and the Architect, based on the recommendation of the Construction Manager, determines justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

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

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

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

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Construction Manager, before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Construction Manager and the Architect. This schedule, unless objected to by the Construction Manager or Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. The Construction Manager shall forward to the Architect the Contractor's schedule of values. Any changes to the schedule of values shall be submitted to the Construction Manager and supported by such data to substantiate its accuracy as the Construction Manager and the Architect may require, and unless objected to by the Construction Manager or the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

§ 9.3 Applications for Payment

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

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

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

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

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all

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Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 Where there is only one Contractor, the Construction Manager will, within seven days after the Construction Manager's receipt of the Contractor's Application for Payment, review the Application, certify the amount the Construction Manager determines is due the Contractor, and forward the Contractor's Application and Certificate for Payment to the Architect. Within seven days after the Architect receives the Contractor's Application for Payment from the Construction Manager, the Architect will either (1) issue to the Owner a Certificate for Payment, in the full amount of the Application for Payment, with a copy to the Construction Manager; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Construction Manager and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Construction Manager and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1. The Construction Manager will promptly forward to the Contractor the Architect's notice of withholding certification.

§ 9.4.2 Where there is more than one Contractor performing portions of the Project, the Construction Manager will, within seven days after the Construction Manager receives all of the Contractors' Applications for Payment: (1) review the Applications and certify the amount the Construction Manager determines is due each of the Contractors; (2) prepare a Summary of Contractors' Applications for Payment by combining information from each Contractor's application with information from similar applications for progress payments from the other Contractors; (3) prepare a Project Application and Certificate for Payment; (4) certify the amount the Construction Manager determines is due all Contractors; and (5) forward the Summary of Contractors' Applications for Payment and Project Application and Certificate for Payment to the Architect.

§ 9.4.2.1 Within seven days after the Architect receives the Project Application and Project Certificate for Payment and the Summary of Contractors' Applications for Payment from the Construction Manager, the Architect will either (1) issue to the Owner a Project Certificate for Payment, with a copy to the Construction Manager; or (2) issue to the Owner a Project Certificate for Payment for such amount as the Architect determines is properly due, and notify the Construction Manager and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Project Application for Payment, and notify the Construction Manager and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1. The Construction Manager will promptly forward the Architect's notice of withholding certification to the Contractors.

§ 9.4.3 The Construction Manager's certification of an Application for Payment or, in the case of more than one Contractor, a Project Application and Certificate for Payment, shall be based upon the Construction Manager's evaluation of the Work and the data in the Application or Applications for Payment. The Construction Manager's certification will constitute a representation that, to the best of the Construction Manager's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is, or Contractors are, entitled to payment in the amount certified.

§ 9.4.4 The Architect's issuance of a Certificate for Payment or, in the case of more than one Contractor, Project Application and Certificate for Payment, shall be based upon the Architect's evaluation of the Work, the recommendation of the Construction Manager, and data in the Application for Payment or Project Application for Payment. The Architect's certification will constitute a representation that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is, or Contractors are, entitled to payment in the amount certified.

§ 9.4.5 The representations made pursuant to Sections 9.4.3 and 9.4.4 are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Construction Manager or Architect.

§ 9.4.6 The issuance of a Certificate for Payment or a Project Certificate for Payment will not be a representation that the Construction Manager or Architect has (1) made exhaustive or continuous on-site inspections to check the quality

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or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Construction Manager or Architect may withhold a Certificate for Payment or Project Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Construction Manager's or Architect's opinion the representations to the Owner required by Section 9.4.3 and 9.4.4 cannot be made. If the Construction Manager or Architect is unable to certify payment in the amount of the Application, the Construction Manager will notify the Contractor and Owner as provided in Section 9.4.1 and 9.4.2. If the Contractor, Construction Manager and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment or a Project Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Construction Manager or Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment or Project Certificate for Payment previously issued, to such extent as may be necessary in the Construction Manager's or Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from the acts and omissions described in Section 3.3.2 because of

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

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect or Construction Manager withholds certification for payment under Section 9.5.1, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Construction Manager, and both will reflect such payment on the next Certificate for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment or Project Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Construction Manager and Architect.

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

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

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor

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fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner, Construction Manager nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

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

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

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

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

If the Construction Manager and Architect do not issue a Certificate for Payment or a Project Certificate for Payment, through no fault of the Contractor, within fourteen days after the Construction Manager's receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Construction Manager and Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner, Construction Manager and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.

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

§ 9.8.3 Upon receipt of the list, the Architect, assisted by the Construction Manager, will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect, assisted by the Construction Manager, to determine Substantial Completion.

§ 9.8.4 When the Architect, assisted by the Construction Manager, determines that the Work of all of the Contractors, or designated portion thereof, is substantially complete, the Construction Manager will prepare, and the Construction

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

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

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor and Construction Manager shall jointly prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect after consultation with the Construction Manager.

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

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

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon completion of the Work, the Contractor shall forward to the Construction Manager a notice that the Work is ready for final inspection and acceptance, and shall also forward to the Construction Manager a final Contractor's Application for Payment. Upon receipt, the Construction Manager shall perform an inspection to confirm the completion of Work of the Contractor. The Construction Manager shall make recommendations to the Architect when the Work of all of the Contractors is ready for final inspection, and shall then forward the Contractors' notices and Application for Payment or Project Application for Payment, to the Architect, who will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Construction Manager and Architect will promptly issue a final Certificate for Payment or Project Certificate for Payment stating that to the best of their knowledge, information and belief, and on the basis of their on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Construction Manager's and Architect's final Certificate for Payment or Project Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect through the Construction Manager (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6), if required by the Owner, other data

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establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

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

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

- **.1** liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- **.2** failure of the Work to comply with the requirements of the Contract Documents;
- **.3** terms of special warranties required by the Contract Documents; or
- **.4** audits performed by the Owner, if permitted by the Contract Documents, after final payment.

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

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall submit the Contractor's safety program to the Construction Manager for review and coordination with the safety programs of other Contractors. The Construction Manager's responsibilities for review and coordination of safety programs shall not extend to direct control over or charge of the acts or omissions of the Contractors, Subcontractors, agents or employees of the Contractors or Subcontractors, or any other persons performing portions of the Work and not directly employed by the Construction Manager.

§ 10.2 Safety of Persons and Property

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

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

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

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

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

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2, 10.2.1.3 and 10.2.1.4 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2, 10.2.1.3 and 10.2.1.4. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner, Construction Manager or Architect or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

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

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

§ 10.2.8 Injury or Damage to Person or Property

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

§ 10.3 Hazardous Materials

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner, Construction Manager and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor, Construction Manager and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor, the Construction Manager and the Architect will promptly reply to the Owner in writing stating whether or not any of them has reasonable objection to the persons or entities proposed by the Owner. If the Contractor, Construction Manager or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor, the Construction Manager and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Construction Manager, Architect, their consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of

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tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

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

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

§ 10.4 Emergencies

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

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Construction Manager and Construction Manager's consultants, and the Architect and Architect's consultants, shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

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

§ 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice directly to the Owner, and separately to the Construction Manager, of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the

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Contract Documents, the Owner shall inform both the Contractor and the Construction Manager, separately and in writing, prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice directly to the Contractor, and separately to the Construction Manager, of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Construction Manager and Construction Manager's consultants; (3) the Architect and Architect's consultants; (4) other Contractors and any of their subcontractors, sub-subcontractors, agents, and employees; and (5) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Construction Manager, Construction Manager's consultants, Architect, Architect's consultants, other Contractors, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this Section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor, Architect, and Construction Manager for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to

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requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Construction Manager, Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Construction Manager, Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

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

§ 12.1.2 If a portion of the Work has been covered that the Construction Manager or Architect has not specifically requested to examine prior to its being covered, the Construction Manager or Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

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

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof, or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner, Construction Manager or Architect, the Owner may correct it in accordance with Section 2.5.

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

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§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

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

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

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

§ 12.3 Acceptance of Nonconforming Work

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

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 Successors and Assigns

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

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

§ 13.3 Rights and Remedies

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

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

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Construction Manager and Architect timely notice of when and where tests and inspections are to be made so that the Construction Manager and Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become

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requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Construction Manager, Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Construction Manager and Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Construction Manager and Architect of when and where tests and inspections are to be made so that the Construction Manager and Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Construction Manager's and Architect's services and expenses, shall be at the Contractor's expense.

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

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

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

§ 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- **.1** Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- **.2** An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- **.3** Because the Construction Manager has not certified or the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- **.4** The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner, Construction Manager and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

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

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

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

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, after consultation with the Construction Manager, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

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

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

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

§ 14.3 Suspension by the Owner for Convenience

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

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

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

§ 14.4 Termination by the Owner for Convenience

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

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

- **.1** cease operations as directed by the Owner in the notice;
- **.2** take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and

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.3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition. A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Construction Manager and Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost. If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay only one Claim is necessary.

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

§ 15.1.7 Waiver of Claims for Consequential Damages. The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

.1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

.2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

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

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

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

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties, the Construction Manager, and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation

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within 30 days of receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

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

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

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

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§ 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

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SUPPLEMENTARY GENERAL CONDITIONS A232-2019

The following supplements modify the "General Conditions of the Contract for Construction, Construction Manager as Advisor Edition." AIA Document A232-2019. Where a portion of the General Conditions is modified or deleted by the Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

TABLE OF ARTICLES

1. GENERAL PROVISIONS
2. OWNER
3. CONTRACTOR
4. ARCHITECT AND CONSTRUCTION MANAGER
5. SUBCONTRACTORS
6. CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
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12. UNCOVERING AND CORRECTION OF WORK
13. MISCELLANEOUS PROVISIONS
14. TERMINATION OR SUSPENSION OF THE CONTRACT
15. CLAIMS AND DISPUTES

ARTICLE 1: GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

1.1.1 THE CONTRACT DOCUMENTS

Delete the last sentence in its entirety and replace with the following:

"The Contract Documents also include Advertisement for Bid, Instructions to Bidder, sample forms, the Bid Form, the Contractor's completed Bid and the Award Letter."

1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

Add the following Paragraphs:

1.2.4 In the case of an inconsistency between the Drawings and the Specifications, or within either document not clarified by addendum, the better quality or greater quantity of work shall be provided in accordance with the Architect's interpretation.

1.2.5 The word "PROVIDE" as used in the Contract Documents shall mean "FURNISH AND INSTALL" and shall include, without limitation, all labor, materials, equipment, transportation, services and other items required to complete the Work.

1.2.6 The word "PRODUCT" as used in the Contract Documents means all materials, systems and equipment.

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

Delete Paragraph 1.5.1 in its entirety and replace with the following:

"All pre-design studies, drawings, specifications and other documents, including those in electronic form, prepared by the Architect under this Agreement are, and shall remain, the property of the Owner whether the Project for which they are made is executed or not. As for the Project for which the Architect is hired, the Architect still remain liable for any claim relating to the design that arises from the Project.

However, such documents may be used by the Owner to construct one or more like projects without the approval of, or additional compensation to, the Architect. The Contractor, Subcontractors, Sub-subcontractors and Material or Equipment Suppliers are authorized to use and reproduce applicable portions of the Drawings, Specifications and other documents prepared by the Architect and the Architect's consultants appropriate to and for use in the execution of their Work under the Contract Documents. They are not to be used by the Contractor or any Subcontractor, Sub-subcontractor or Material and Equipment Supplier on other Projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and Architect's consultants.

The Architect shall not be liable for injury or damage resulting from the re-use of drawings and specifications if the Architect is not involved in the re-use Project."

1.6 NOTICE

1.6.1 Insert the following sentence at the end of the paragraph:

"Electronic mail, also known as email, is an acceptable form of electronic transmission of notices under this Agreement."

ARTICLE 2: OWNER

2.1 General

2.1.2 Delete Paragraph 2.1.2 in its entirety.

2.2 EVIDENCE OF OWNER'S FINANCIAL ARRANGEMENT

2.2.1 Delete the second sentence in this paragraph and replace with the following: "The Contractor shall have no obligation to commence the Work until the Owner issues a Purchase Order for the Project."

2.2.2 Delete the last three sentences in this paragraph.

ARTICLE 3: CONTRACTOR

3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

3.2.4 Delete the third sentence in Paragraph 3.2.4.

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

Add the following Paragraphs:

3.3.2.1 The Contractor shall immediately remove from the Work, whenever requested to do so by the Owner, any person who is considered by the Owner or Architect to be incompetent or disposed to be disorderly, or who for any reason is not satisfactory to the Owner, and that person shall not again be employed on the Work without the consent of the Owner or the Architect.

3.3.4 The Contractor must provide suitable storage facilities at the Site, or an alternative site as approved by the Owner, for the proper protection and safe storage of their materials. Consult the Owner and the Architect before storing any materials.

3.3.5 When any room is used as a shop, storeroom, office, etc., by the Contractor or Subcontractor(s) during the construction of the Work, the Contractor making use of these areas will be held responsible for any repairs, patching or cleaning arising from such use.

3.4 LABOR AND MATERIALS

3.4.1.1 Add a new section 3.4.1.1:

"The Contractor, at their expense shall bear the costs to accurately identify the location of all underground utilities in the area of their excavation and shall bear all cost for any repairs required, out of failure to accurately identify said utilities."

Add the Following Paragraphs:

3.4.4 Before starting the Work, each Contractor shall carefully examine all preparatory Work that has been executed to receive their Work. Check carefully, by whatever means are required, to insure that its Work and adjacent, related Work, will finish to proper contours, planes and levels. Promptly notify the General Contractor/Construction Manager of any defects or imperfections in preparatory Work which will in any way affect satisfactory completion of its Work. Absence of such notification will be construed as an acceptance of preparatory Work and later claims of defects will not be recognized.

3.4.5 Under no circumstances shall the Contractor's Work proceed prior to preparatory Work having been completely cured, dried and/or otherwise made satisfactory to receive this Work. Responsibility for timely installation of all materials rests solely with the Contractor responsible for that Work, who shall maintain coordination at all times.

3.5 WARRANTY

Add the following Paragraphs:

3.5.3 The Contractor will warrant all materials and workmanship against original defects, except injury from proper and usual wear when used for the purpose intended, for two years after Substantial Completion of the project in accordance with Section 9.8.4 of this Agreement, and will maintain all items in condition that conforms with the Contract Documents during the period of warranty.

3.5.4 Non-conforming work during the period of warranty will be corrected by the Contractor at its expense upon demand of the Owner, it being required that the Work conforms to the Contract Documents at the expiration of the warranty period.

3.5.5 In addition to the General Warranty there are other warranties required for certain items for different periods of time than the two years as above and are particularly so stated in that part of the specifications referring to same. The said warranties will commence at the same time as the General Warranty.

3.5.6 If the Contractor fails to remedy any failure, defect or damage within a reasonable time after receipt of notice, the Owner will have the right to replace, repair, or otherwise remedy the failure, defect or damage at the Contractor's expense.

3.11 DOCUMENTS AND SAMPLES AT THE SITE

Add the following Paragraphs:

3.11.1 During the course of the Work, the Contractor shall maintain a record set of drawings on which the Contractor shall mark the actual physical location of all piping, valves, equipment, conduit, outlets, access panels, controls, actuators, including all appurtenances that will be concealed once construction is complete, etc., including all invert elevations.

3.11.2 At the completion of the project, the Contractor shall obtain a set of reproducible drawings from the Architect, and neatly transfer all information outlined in 3.11.1 to provide a complete record of the as-built conditions.

3.11.3 The Contractor shall provide two (2) prints of the as-built conditions, along with the reproducible drawings themselves, to the Owner and one (1) set to the Architect. In addition, attach one complete set to each of the Operating and Maintenance Instructions/Manuals. Provide the same information in digital format.

3.15 CLEANING UP

3.15.2 Strike sentence in its entirety and replace with the following:

"If the Contractor fails to clean up as provided in the Contract Documents, the Owner, or Construction Manager with the Owner's approval, may do so and the Owner shall withhold the amount that reflects the cost of the cleanup from any moneys owed the Contractor. If the cost of cleanup exceeds the moneys owed to the Contractor, the Owner shall be entitled to reimbursement from the Contractor for the amount exceeding what is withheld.

3.17 In the second sentence of 3.17, insert "indemnify and" between "shall" and "hold".

ARTICLE 4: ARCHITECT AND CONSTRUCTION MANAGER

4.2 Administration of the Contract

Delete the first sentence of Paragraph 4.2.11 and replace with the following:

The Architect will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples for the purpose of checking for conformance with the Contract Documents.

Delete the second sentence of Paragraph 4.2.11 and replace with the following:

The Architect's action will be taken with such reasonable promptness as to cause no delay in the Work in the activities of the Owner, Contractor or separate Contractors, while allowing sufficient time in the Owner's professional judgment to permit adequate review.

Add the following to Paragraph 4.2.17:

There will be no full-time Project representative provided by the Owner or Architect on site for this Project.

Add to Paragraph 4.2.20 "and in compliance with all applicable codes, regulations and ordinances." to the end of the sentence.

ARTICLE 5: SUBCONTRACTORS

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

Delete Paragraph 5.2.3 in its entirety and replace with the following:

5.2.3 If the Owner, Architect or Construction Manager has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner, Architect or Construction Manager has no reasonable objection, subject to the statutory requirements of 29 Delaware Code § 6962(d)(10)b.3 and 4.

ARTICLE 6: CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

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

6.1.1 Delete "and waiver of subrogation" from the last sentence.

6.1.3 Delete Paragraph 6.1.3 in its entirety and replace with the following:

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

6.2 MUTUAL RESPONSIBILITY

6.2.3 In the second sentence, strike the word "shall" and insert the word "may".

ARTICLE 7: CHANGES IN THE WORK

(SEE ARTICLE 7: CHANGES IN WORK IN THE GENERAL REQUIREMENTS)

ARTICLE 8: TIME

8.2 PROGRESS AND COMPLETION

Add the following Paragraphs:

8.2.1.1 Refer to Specification Section CONSTRUCTION SCHEDULE for Contract time requirements.

8.2.4 If the Work falls behind the Progress Schedule as submitted by the Contractor, the Contractor shall employ additional labor and/or equipment necessary to bring the Work into compliance with the Progress Schedule at no additional cost to the Owner.

8.3 DELAYS AND EXTENSION OF TIME

8.3.1 Strike "binding dispute resolution" and insert "remedies at law or in equity".

Add the following Paragraph:

8.3.2.1 The Contractor shall update the status of the suspension, delay, or interruption of the Work with each Application for Payment. (The Contractor shall report the termination of such cause immediately upon the termination thereof.) Failure to comply with this procedure shall constitute a waiver for any claim for adjustment of time or price based upon said cause.

Delete Paragraph 8.3.3 in its entirety and replace with the following:

8.3.3 Except in the case of a suspension of the Work directed by the Owner, an extension of time under the provisions of Paragraph 8.3.1 shall be the Contractor's sole remedy in the progress of the Work and there shall be no payment or compensation to the Contractor for any expense or damage resulting from the delay.

Add the following Paragraph:

8.3.4 By permitting the Contractor to work after the expired time for completion of the project, the Owner does not waive its rights under the Contract.

8.3.5 The parties agree that Paragraph 8.3.3 of the Supplementary General Conditions does not apply to the Construction Manager in the event of a delay caused by a party other than the Construction Manager.

ARTICLE 9: PAYMENTS AND COMPLETION

9.1 CONTRACT SUM
9.1.2 Strike Section 9.1.2 in its entirety.

9.2 SCHEDULE OF VALUES

Add the following Paragraphs:

9.2.1 The Schedule of Values shall be submitted into Building Blok (EDiS' web-based project management software, using AIA Document G702, Continuation Sheet to G703.

9.3 APPLICATIONS FOR PAYMENT

Add the following Paragraph:

9.3.1.3 Application for Payment shall be submitted into Building Blok (EDiS' web-based project management software, on AIA Document G702 "Application and Certificate for Payment", supported by AIA Document G703 "Continuation Sheet". Said Applications shall be fully executed and notarized.

Add the following Paragraphs:

9.3.4 Until Closeout Documents have been received and outstanding items completed the Owner will pay 95% (ninety-five percent) of the amount due the Contractor on account of progress payments.

9.3.5 The Contractor shall provide a current and updated Progress Schedule to the Architect with each Application for Payment. Failure to provide Schedule will be just cause for rejection of Application for Payment.

9.5 DECISIONS TO WITHHOLD CERTIFICATION

Add the following to 9.5.1:

.8 failure to provide a current Progress Schedule;
.9 a lien or attachment is filed;
.10 failure to comply with mandatory requirements for maintaining Record Documents.

9.6 PROGRESS PAYMENTS

Delete Paragraph 9.6.1 in its entirety and replace with the following:

9.6.1 After the Architect and the Construction Manager have approved and issued a Certificate for Payment, payment shall be made by the Owner within 45 days after Owner's receipt of the Certificate for Payment.

9.6.8 Strike "Provided the Owner has fulfilled its payment obligations under the Contract Documents, the" and replace with "The".

9.7 FAILURE OF PAYMENT

In first sentence, strike the first reference to "seven" and insert "forty-five (45)". Also strike "binding dispute resolution" and insert "remedies at law or in equity".

9.8 SUBSTANTIAL COMPLETION

9.8.5 In the second sentence, strike "shall" and insert "may".

ARTICLE 10: PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

Add the following Paragraphs:

10.1.1 Each Contractor shall develop a safety program in accordance with the Occupational Safety and Health Act of 1970. A copy of said plan shall be furnished to the Owner and Architect prior to the commencement of that Contractor's Work.

10.1.2 Each Contractor shall appoint a Safety Representative. Safety Representatives shall be someone who is on site on a full-time basis. If deemed necessary by the Owner or Architect, Contractor Safety meetings will be scheduled. The attendance of all Safety Representatives will be required. Minutes will be recorded of said meetings by the Contractor and will be distributed to all parties as well as posted in all job offices/trailers etc.

10.2 SAFETY OF PERSONS AND PROPERTY

Add the following Paragraph:

10.2.4.1 As required in the Hazardous Chemical Act of June 1984, all vendors supplying any material that may be defined as hazardous must provide Material Safety Data Sheets for those products. Any chemical product should be considered hazardous if it has a caution warning on the label relating to a potential physical or health hazard, if it is known to be present in the workplace, and if employees may be exposed under normal conditions or in foreseeable emergency situations. Material Safety Data Sheets shall be provided directly to the Owner or its designee, along with the shipping slips that include those products.

10.3 HAZARDOUS MATERIALS

Delete Paragraph 10.3.3 in its entirety.

Delete Paragraphs 10.3.6 in its entirety.

ARTICLE 11: INSURANCE AND BONDS

11.1 CONTRACTOR'S INSURANCE AND BONDS

11.1.1 Strike "Owner," at the beginning of the third sentence.

11.1.2 Add the following sentence at the end of the paragraph: "The bonds will conform to those forms approved by the Office of Management and Budget."

11.2 OWNER'S INSURANCE

Delete Paragraph 11.2 in its entirety and replace with the following:

11.2 The Owner will not provide Builder's All Risk Insurance for the Project. The Construction Manager will provide Builder's All Risk Insurance for the Project. The Contractor and all Subcontractors shall provide coverage for materials, fixtures and/or equipment being used in the construction or renovation of a building or structure should those items sustain physical loss or damage from a covered cause. Any mandatory deductible required by the Contractor's Insurance shall be the responsibility of the Contractor.

11.3 WAIVERS OF SUBROGATION

Delete Paragraph 11.3 and its subparagraphs in their entirety.

11.4 LOSS OF USE, BUSINESS INTERRUPTION, AND DELAY IN COMPLETION INSURANCE

Delete Paragraph 11.4 in its entirety.

11.5 ADJUSTMENT AND SETTLEMENT OF INSURED LOSS

Delete Paragraph 11.5 in its entirety.

ARTICLE 12: UNCOVERING AND CORRECTION OF WORK

12.2.2 AFTER SUBSTANTIAL COMPLETION

12.2.2.1 In the first sentence, strike “within one year after the date of Substantial Completion of the Work or designated portion thereof” and replace with “within two years after the date of Substantial Completion of the Project in accordance with Section 9.8.4 of this Agreement or designated portion thereof”.

12.2.2.1 In the third sentence of the paragraph, strike “one year period” and replace it with “two year period”.

Add the following Paragraph:

12.2.2.1.1 At any time during the progress of the Work, or in any case where the nature of the defects will be such that it is not expedient to have corrected, the Owner, at its option, will have the right to deduct such sum, or sums, of money from the amount of the Contract as it considers justified to adjust the difference in value between the defective work and that required under contract including any damage to the structure.

12.2.2.2 Strike “one” and insert “two”.

12.2.2.3 Strike “one” and insert “two”.

12.2.5 In second sentence, strike “one” and insert “two”.

ARTICLE 13: MISCELLANEOUS PROVISIONS

13.1 GOVERNING LAW

13.1 Strike the second sentence in its entirety.

13.5 INTEREST

13.5 Strike 13.5 in its entirety and replace with the following:
"Payments are due 45 days after receipt of a valid Application for Payment. After that 30 day period, interest may be charged at the rate of 1% per month not to exceed 12% per annum."

Add the following Paragraph:

13.6 CONFLICTS WITH FEDERAL STATUTES OR REGULATIONS

13.6.1 If any provision, specifications or requirement of the Contract Documents conflict or is inconsistent with any statute, law or regulation of the government of the United State of America, the Contractor shall notify the Architect and Owner immediately upon discovery.

ARTICLE 14: TERMINATION OR SUSPENSION OF THE CONTRACT

14.4 TERMINATION BY THE OWNER FOR CONVENIENCE

Delete Paragraph 14.4.3 in its entirety and replace with the following:

14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and cost incurred by reason of such termination along with reasonable overhead.

ARTICLE 15: CLAIMS AND DISPUTES

15.1.2 TIME LIMITS ON CLAIMS.

15.1.2 Strike "in accordance with the requirements of the binding dispute resolution method selected in the Agreement and" from the first sentence.
Strike the second sentence in its entirety.

15.1.4 CONTINUING CONTRACT PERFORMANCE

15.1.4.2 Strike in its entirety.

15.1.7 CLAIMS FOR CONSEQUENTIAL DAMAGES

Delete Paragraph 15.1.7 and its subparagraphs in their entirety.

15.2 INITIAL DECISION

15.2.1 Delete "and binding dispute resolution"

15.2.5 Delete in its entirety and replace with the following:

15.2.5 The Architect will approve or reject Claims by written decision, which shall state the reasons therefore and shall notify the parties of any change in the Contract Sum or Contract Time or both. The approval or rejection of a Claim by the Architect shall be subject to mediation and other remedies at law or in equity.

Delete Paragraph 15.2.6 and its subparagraphs in their entirety.

15.3 MEDIATION

15.3.1 Strike "binding dispute resolution" and insert "any or all remedies at law or in equity".

15.3.2 In the first sentence, delete "administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedure in effect on the date of the Agreement,". Also strike "binding dispute resolution" and insert "remedies at law and in equity".

15.3.3 Strike in its entirety.

15.4 ARBITRATION

Delete Paragraph 15.4 and its subparagraphs in their entirety.

END OF SUPPLEMENTARY GENERAL CONDITIONS

SECTION 007343 – WAGE RATE REQUIREMENTS

1. SUMMARY

A. In accordance with Delaware Code, Title 29, Subchapter IV, Section 6960, all laborers and mechanics of the Contractor and all subcontractors employed to perform work directly upon the site of the work shall be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account the full amounts accrued at the time of payment computed at wage rates not less than those determined by the Division of Industrial Affairs, Department of Labor, State of Delaware, as the prevailing rates in this area.

B. This approved scale of wages must be posted by the Contractor in a prominent and easily accessible place at the site of the work.

C. It is further stipulated that there may be withheld from the Contractor such accrued payment as may be considered necessary by the contracting officer to pay laborers and mechanics employed by the Contractor or any subcontractors on the work the difference between the rates of wages required and the rate of wages received by such laborers and mechanics and not refunded to the Contractor, subcontractor or their agents.

D. Where wage rates are published in this Manual they are issued by the State Department of Labor on the date indicated and are included for the convenience of Bidders. The Owner, the Architect, and the Construction Manager, accept no responsibility for the accuracy or applicability of any rates included herein. The actual wage rate determinations which will apply to the work will be those in effect on the first day of public advertisement for bids as determined by the State Department of Labor. It will be the responsibility of each bidder to contact the State Department of Labor and to incorporate these rates in his bid.

E. In accordance with Delaware Code, Title 29, Subchapter IV, Section 6960, as amended January 11, 2024, contractors shall furnish sworn payroll information to the Department of Labor on a weekly basis for each contract which exceeds $45,000 for renovation work and/or $500,000 for new construction. The construction contract amount is based on a cumulative total of all contracts bid for a specific project. Payroll forms for submission may be obtained from the Department of Labor.

1. A Payroll Report, available from the Department of Labor is to be used to provide this information.

F. A copy of the Prevailing Wages for the project is attached hereto.

END OF SECTION

DEPARTMENT OF LABOR
OFFICE OF CONSTRUCTION INDUSTRY ENFORCEMENT
650 SOUTH BAY ROAD
SUITE 19A
DOVER, DELAWARE 19901

Via Electronic and Regular Mail

July 21, 2026

Mr. Warren Ellis
Edis Company
110 S. Poplar Street
Suite 400
Wilmington, DE 19805

Re: EDiS #4253400 COLONIAL SCHOOL DISTRICT WILLIAM PENN HIGH SCHOOL ATHLETICS COMPLEX BID PACK A,New Castle County, DE

Dear Mr. Ellis:

I am responding to your request for a category determination for the contract: EDiS #4253400 COLONIAL SCHOOL DISTRICT WILLIAM PENN HIGH SCHOOL ATHLETICS COMPLEX BID PACK A, which is a state funded construction project located in New Castle County, DE. The work consists of sitework related to new ball fields, new athletic buildings and new parking areas, and access roads. You estimate the total cost of construction for this project to be $28,000,000.00.

Based upon the information you provided the Department of Labor has determined that this project is a Heavy Construction project.

Delaware's Prevailing Wage Regulations provide that the rates applicable to a project are the rates in effect on the date of publication of the specifications for that project. I have enclosed a certified copy of the March 13, 2026, prevailing wage rates for Heavy Construction to be included in your bid specification. However, please be advised that, in the event that a contract for a project is not executed within one hundred and twenty (120) days from the earliest date the specifications were published, the rates in effect at the time of the execution of the contract shall be the applicable rates for the project.

This determination is directed solely to the parties identified herein. It is based on the unique facts relevant to this matter. It does not constitute precedent and should not be cited as such by future parties.

Pursuant to 19 Del. Chapter 36, all contractors must obtain their Contractor Registration Certificate prior to performing construction services or maintenance work throughout Delaware. Contractors can submit an application by visiting the Delaware One Stop https://onestop.delaware.gov/Operate_Contractors.

Additionally, effective January 1, 2025, SSI for SB307 amends Delaware's Prevailing Law 29 Del.C.6960(b) now requires these applicable prevailing wage rates to be paid to all workers who perform custom fabrication work regardless of where the work is performed. For further information regarding custom fabrication see 29 Del.C.6902(8).

Lastly, please see the enclosed debarment list. Entities/individuals listed shall not be permitted to bid on, be awarded or work on Delaware State funded construction projects, in the timeframe specified, as provided for under 29 Del.C.6960 or other applicable State statutes.

If you have any questions or I can provide any additional assistance, please do not hesitate to contact me at (302) 430- 7719.

Sincerely,

KEVIN THOMAS
Lavor Law Enforcement Officer II
Office of Construction Industry Enforcement
(302) 430- 7719
KEVIN.THOMAS@DELAWARE.GOV

Enclosures

STATE OF DELAWARE
DEPARTMENT OF LABOR
DIVISION OF INDUSTRIAL AFFAIRS
OFFICE OF LABOR LAW ENFORCEMENT
PHONE: (302) 318-2769

Mailing Address:
252 Chapman Road
Suite 210
Newark, DE 19702

Located at:
252 Chapman Road
Suite 210
Newark, DE 19702

PREVAILING WAGES FOR **HEAVY CONSTRUCTION** EFFECTIVE MARCH 13, 2026

CLASSIFICATION	NEW CASTLE	KENT	SUSSEX
ASBESTOS WORKERS	29.67	26.10	56.73
BOILERMAKERS	94.57	43.10	79.08
BRICKLAYERS	92.55	79.48	33.43
CARPENTERS	64.06	64.06	52.30
CEMENT FINISHERS	58.52	32.68	24.35
DIVER	105.43	Contact - DOL	-
DIVER TENDER	119.76	Contact DOL	-
ELECTRICAL LINE WORKERS	99.31	99.31	99.31
ELECTRICIANS	86.87	86.87	86.87
GLAZIERS	27.39	23.80	16.12
INSULATORS	71.54	71.54	71.54
IRON WORKERS	79.33	81.82	80.70
LABORERS	59.65	59.65	59.65
MILLWRIGHTS	91.00	91.00	73.10
PAINTERS	97.61	97.61	97.61
PILEDRIVERS	93.37	52.83	41.11
PLASTERERS	25.80	22.44	15.15
PLUMBERS/PIPEFITTERS/STEAMFITTERS	101.88	104.47	26.16
POWER EQUIPMENT OPERATORS	85.29	92.36	85.29
SHEET METAL WORKERS	41.24	25.59	24.04
SPRINKLER FITTERS	44.46	16.83	15.00
TRUCK DRIVERS	50.14	27.61	29.89

CERTIFIED: 7/21/2026 BY: for Fran Chudzik
ADMINISTRATOR, OFFICE OF LABOR LAW ENFORCEMENT

NOTE: THESE RATES ARE PROMULGATED AND ENFORCED PURSUANT TO THE PREVAILING WAGE REGULATIONS ADOPTED BY THE DEPARTMENT OF LABOR ON APRIL 3, 1992.

CLASSIFICATIONS OF WORKERS ARE DETERMINED BY THE DEPARTMENT OF LABOR. FOR ASSISTANCE IN CLASSIFYING WORKERS, OR FOR A COPY OF THE REGULATIONS OR CLASSIFICATIONS, PHONE (302) 318-2769.

NON-REGISTERED APPRENTICES MUST BE PAID THE MECHANIC'S RATE.

PROJECT: EDiS 4253400 COLONIAL SCHOOL DISTRICT WILLIAM PENN HIGH SCHOOL ATHL[illegible] COMPLEX BID PACK A, New Castle County

PREVAILING WAGE DEBARMENT LIST

The following contractors have been debarred for violations of the prevailing wage law 29Del.C. §6960 or other applicable State statutes.

Therefore, no public construction contract in this State shall be bid on, awarded to, or received by contractors and individuals on this list for a period of (3) three years from the date of the judgment or as deemed by a court of competent jurisdiction.

Contractor	Address	Date of Debarment
Mullen Brothers, Inc. and Daniel Mullen, individually	3375 Garnett Road, Boothwyn, PA 19060	Indefinite/ Civil Contempt
State Contractors Corporation, and Jose Oscar Rivera, individually	13004 Hathaway Drive Silver Spring, MD 20906	Indefinite/ 19 Del.C. 2374(f)
Green Granite and Jason Green, individually	604 Heatherbrooke Court Avondale, PA 19311	Indefinite/ Civil Contempt
Pro Image Landscaping, Inc. and Owner(s) individually	23 Commerce Street Wilmington, DE 19801 and/or 2 Cameo Road Claymont, DE 19703	Indefinite/19 Del.C. §108 & 10 Del.C. 542(c)
Liberty Mechanical, LLC and Owner(s), individually	2032 Duncan Road Wilmington, DE 19801	Indefinite/ 19 Del.C. 2374(f)
Integrated Mechanical and Fire Systems Inc. and Allison Sheldon, individually	4601 Governor Printz Boulevard Wilmington, DE 19809	Indefinite/19 Del.C. §108 & 10 Del.C. 542(c)
ACH 1, INC.	873 Salem Church Road Newark, DE 19702	Indefinite/19 Del.C.6960

Updated: July 6, 2022

SECTION 008114 – DRUG TESTING PROGRAM AND FORMS

1. SUMMARY

A. Pursuant to 4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors who work on Large Public Works Contracts funded all or in part with public funds submit with their bid an Affidavit of Employee Drug Testing Program. A copy of the current Regulation is attached hereto.

B. Each Contractor shall provide two (2) business days prior to contract execution, copies of the Employee Drug Testing Program for the Contractor and all Subcontractors.

C. Initial Drug Testing - Employees commencing work on a Jobsite must be tested within the past 180 days from the date of commencing work, with the exception that an Employee who has passed a random or scheduled drug test within that time frame, or an Employee who passed a pre-employment drug test administered pursuant to a Contractor's or Subcontractor's Program and is subject to testing as part of a Contractor's or Subcontractor's ongoing Program or as part of a Consortium shall be permitted to work at the Jobsite without further testing; however, the Employee is still subject to random testing.

D. A Contractor or Subcontractor's Program shall provide that no less than 5% of a Contractor's or Subcontractor's employees shall be randomly selected each month for drug testing and no less than 2.5% of a Contractor or Subcontractor's employees be randomly selected for alcohol testing. Test results must be kept by a Contractor or Subcontractor for a minimum of 1 year subsequent to the date of close out of the Public Works project. See the form attached hereto.

E. The Contractor will notify the Owner in writing of any positive results of random drug testing. See the form attached hereto. The results must be reported to the Owner within 24 hours of receipt of the test results.

OFFICE OF MANAGEMENT AND BUDGET
DIVISION OF FACILITIES MANAGEMENT
4000 Office of Management and Budget
4100 Division of Facilities Management

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects

1.0 Purpose

The Office of Management and Budget ("Office"), has developed these regulations that require contractors and subcontractors to implement a program of mandatory drug testing for employees who work on large public works contracts funded all or in part with public funds pursuant to 29 **Del.C.** §6908(a)(6). The regulations establish the mechanism, standards and requirements of a Mandatory Drug Testing Program that will be incorporated by reference into all large public works contracts awarded pursuant to 29 **Del.C.** §6962.

2.0 Definitions

"**Consortium"/"third party administrator**" or "**(C/TPA)**" means a service agent that provides or coordinates the provision of a variety of drug and alcohol testing services to employers. C/TPAs typically perform administrative tasks concerning the operation of the employers' drug and alcohol testing programs. This term includes, but is not limited to, groups of employers who join together to administer, as a single entity, the drug and alcohol testing programs of its members.

"**Contractor**" means an entity such as, but not limited to, an individual, firm, partnership or corporation that has a contractual obligation to perform work for contracts awarded pursuant to 29 **Del.C.** §6962.

"**Division of Facilities Management**" and "**DFM**" means the Division of Facilities Management within the Office of Management and Budget.

"**Drug testing firm**" is an entity engaged in the business of providing drug testing services for businesses, individuals, governments or any entity that requires drug testing of employees, applicants, licensees, etc., in compliance with these requirements.

"**Employee**" means an individual employed by a contractor or subcontractor who works on the jobsite of a large public works contract but does not fulfill a clerical or administrative function. For the purpose of this definition, clerical or administrative functions shall refer to job responsibilities that do not generally require an employee to work outside of the contractor's jobsite office, home office or other employer-provided office. For the purposes of this regulation, the term "employee" shall also include supervisors and foremen working on the jobsite. The term "employee" shall also include employees of a contractor or subcontractor working on or delivering materials and equipment to and from a jobsite.

"**Impairment**" or "**impaired**" means symptoms that an employee while working may be under the influence of drugs or alcohol that may decrease or lessen the employee's performance of the duties or tasks of the employee's job position, including symptoms of the employee's speech, walking, standing, physical dexterity, agility, coordination, actions, movement, demeanor, appearance, clothing, odor, irrational or unusual behavior, negligence or carelessness in operating equipment, machinery or production or manufacturing processes, disregard for the safety of the employee or others, or other symptoms causing a reasonable suspicion of the use of drugs or alcohol.

"Jobsite" means the site or area directly or indirectly owned, operated or controlled by the owner in which the contractor or subcontractor performs work or delivers services to the owner. For the purpose of this definition, "jobsite" does not mean a remote work site not under the direct or indirect control of the owner in which work is performed to fulfill the contractor's or subcontractor's obligations.

"Large public works contract" means a contract for a public works construction awarded pursuant to 29 **Del.C.** §6962.

"Mandatory drug testing program" and "**program**" means a defined set of basic procedures, requirements and rules that must be used by a contractor or subcontractor to test employees for drugs in compliance with these requirements.

"Owner" is the state agency, school district or entity that awards a large public works contract to a contractor pursuant to 29 **Del.C.** §6962.

"Positive test result" and "**fail a drug test**" means the result reported by a Health and Human Services certified laboratory when a specimen contains a drug or drug metabolite equal to or greater than the cutoff concentration. For purposes of these regulations, an employee shall not be considered to have a positive test result nor shall an employee be considered to "fail a drug test", unless the employee was impaired by marijuana at the jobsite if:

- The employee is a registered qualifying patient and;
- The drug detected was marijuana, a component of marijuana, or marijuana metabolites.

"Random drug testing" means that an employee is chosen at random for testing without advance notice, from a pool of employees or as a member of a consortium. Specific requirements for random drug testing conducted under these regulations are described in Section 5.0.

"Registered qualifying patient" means a person (1) validly issued and in possession of an unexpired registry identification card as defined by 16 **Del.C.** §4902A (14), and (2) subject to confirmation through a "verification system" as set forth at 16 **Del.C.** §4902A(17).

"Subcontractor" means an entity such as, but not limited to, an individual, firm, partnership or corporation that has a contractual obligation to perform work for, or supply services to a contractor as defined in Section 2.0.

21 DE Reg. 503 (12/01/17)

3.0 Employee Drug Testing Documentation Requirements

3.1 The following documentation requirements apply:

3.1.1 At bid submission. A solicitation for a large public works contract must require each contractor that submits a bid for the work to submit with the bid a signed affadavit certifying that the contractor and subcontractor(s) has in place or will implement during the entire term of the contract a mandatory drug testing program that complies with this regulation.

3.1.2 At least 2 business days prior to contract execution. The awarded contractor shall provide to the owner copies of the employee drug testing program for the contractor and for all listed subcontractors.

3.1.3 During contract execution. Contractors that employ additional subcontractors on the jobsite may do so only after submitting a copy of the subcontractor's employee drug testing program. A contractor or subcontractor shall not commence work until the owner has concluded the employee drug testing program complies with this regulation as per subsection 3.2.

3.1.4 In the event of an emergency a contractor may employ additional subcontractors on the jobsite prior to submitting the subcontractor's employee drug testing program provided that said program is submitted to the owner as soon as practicable.

3.2 A contractor or subcontractor shall be treated as having a mandatory drug testing program that complies with this regulation if the program includes the following:

3.2.1 The program meets the minimum standards in Section 4.0 of this regulation.

3.2.2 The program provides for the frequency of testing of employees as per Section 5.0 of this regulation:

3.2.3 The program imposes disciplinary measures on an employee who fails a drug test as per Section 6.0 of this regulation.

3.3 Prequalified contractors and subcontractors. A contractor or subcontractor may meet the provisions of subsection 3.1 if they are prequalified through the DFM prequalification and if the DFM prequalification includes provisions requiring an employee mandatory drug testing program that meet the requirements of Sections 4.0, 5.0 and 6.0 of this regulation

3.4 The State shall not be obligated to pay, and the contractor or subcontractor shall expressly agree that, any portion of work performed by a contractor or subcontractor commenced before that contractor or subcontractor has complied with subsections 3.1 and 3.2, provided however that emergency work as referenced in subsection 3.1.4 may not be subject to this provision.

21 DE Reg. 503 (12/01/17)

4.0 Minimum Standards for a Mandatory Drug Testing Program

4.1 Testing for the presence of drugs in an employee's system and the handling of test specimens shall be conducted in accordance with guidelines for the collection, chain-of-custody procedures, laboratory testing, and Medical Officer Review procedures contained within the Mandatory Guidelines for Federal Workplace

Drug Testing Programs published by the Substance Abuse and Mental Health Services Administration (SAMHSA). (49 CFR Part 40).

All tests must be processed by a federal Health and Human Services certified laboratory. Contractors must provide documentation detailing the procedures used in the collection, testing and reporting of drug tests sufficient to show conformance with SAMHSA guidelines.

4.2 Contractors and subcontractors subject to these regulations may procure the services of an appropriate drug testing firm to administer their program. A contractor or subcontractor may also participate in a consortium. A contractor or subcontractor may also implement a mandatory drug testing program using in-house personnel and resources.

4.3 Employees subject to drug testing shall be tested using at a minimum a seven-panel protocol testing plus alcohol screening for the following:

Initial test analyte	**Initial test cutoff concentration**	**Confirmatory test analyte**	**Confirmatory test cutoff concentration**
Marijuana metabolites	50 ng/mL	THCA	15 ng/mL.
Cocaine metabolites	150 ng/mL	Benzoylecgonine	100 ng/mL.
Opiate metabolites			
Codeine/Morphine	2000 ng/mL	Codeine	2000 ng/mL.
		Morphine	2000 ng/mL.
6-Acetylmorphine	10 ng/mL	6-Acetylmorphine	10 ng/mL.
Phencyclidine	25 ng/mL	Phencyclidine	25 ng/mL.
Amphetamines			
AMP/MAMP	500 ng/mL	Amphetamine	250 ng/mL.
		Methamphetamine	250 ng/mL.
MDMA	500 ng/mL	MDMA	250 ng/mL.
		MDA	250 ng/mL.
		MDEA	250 ng/mL.
Alcohol	0.04%		

4.4 The frequency of random drug testing and the methodology for selecting employees to be screened are defined in Section 5.0 and shall be incorporated into contractor and subcontractor mandatory testing procedures. A contractor or subcontractor may incorporate rules or requirements that exceed the requirements defined herein.

21 DE Reg. 503 (12/01/17)

5.0 Drug Testing Requirements – Frequency for the Testing of Employees

5.1 Initial drug testing. Employees commencing work on a jobsite must be tested with the exception that an employee who has passed a random or scheduled drug test within the past 180 days from the date of commencing work or an employee who passed a pre-employment drug test administered pursuant to an contractor's or subcontractor's program, or who possesses a certification no more than 6 months old under the then current New Castle County ordinance 2.05.305 - Alcohol and Drug Testing of Employees of Contractors Working on Public Works Projects and Jobsites, and is subject to testing as part of a contractor's or subcontractor's ongoing program or as part of a consortium shall be permitted to work at the jobsite without further testing; however, the employee is still subject to random testing.

5.2 Random drug testing. During the course of a project, each contractor and subcontractor with employees on the jobsite shall maintain a program that meets or exceeds the following requirements.

5.2.1 All employees will be subject to random, unannounced testing.

5.2.2 The selection of employees shall be made by a scientifically valid method of randomly generating an employee identifier from a contractor or subcontractor’s entire pool of employees, through those employees working on a public works jobsite or through the contractor or subcontractor's participation in a consortium.

5.2.3 A contractor or subcontractor's program shall provide that no less than 5% of a contractor’s or subcontractor’s employees shall be randomly selected each month for drug testing and no less than 2.5% of a contractor or subcontractor's employees be randomly selected for alcohol testing. Contractors or

subcontractors may participate in a consortium provided that no less than 5% of the consortium's pool shall be subject to drug testing each month and no less than 2.5% of the consortium's pool shall be subject to alcohol testing each month. Contractors or subcontractors with less than 10 employees that do not participate in a consortium shall test at least 1 of their employees, selected randomly per month. Each employee shall have an equal chance of selection each time the selection is made. Because the selection process is random, some employees may not be tested within a year, while others may be tested more than once. Nothing in this regulation shall require an employee of a contractor or subcontractor not working or assigned to a public works jobsite to be subject to random alcohol testing.

5.2.4 Employees notified that they have been selected must report within 4 hours for testing to a site specified. Employees so notified must have been given such notification at least 4 hours before the scheduled closing time of the testing facility. Any failure to report for random testing, or to cooperate with the testing procedure shall be considered a positive result.

5.2.5 Purposely impeding or delaying an employee's fulfillment of the testing requirements herein by a contractor or subcontractor may subject the contractor or subcontractor to sanctions listed in Section 8.0.

5.3 Reasonable suspicion testing. An employee will be required to take a drug and/or alcohol test at any time his or her employing contractor, subcontractor or the owner reasonably believes that he or she has an impairment caused by drugs and/or alcohol. Further, an employee may be required to take a drug and/or alcohol test at any time his or her employing contractor, subcontractor or the owner finds drug paraphernalia and/or open alcohol containers on the jobsite.

5.4 Return to duty testing. As required in Section 6.0.

5.5 Accident triggered testing. An employee will be required to take a drug test and may be subject to an alcohol breathalyzer test at any time there is a jobsite accident involving loss or significant property damage, injury or death to an employee of the contractor, subcontractor, or owner or member of the public.

5.5.1 As soon as practicable following an accident, the contractor will notify the employee(s) whose performance could have contributed to the accident of the need for the test.

5.5.2 The appropriate contractor shall ensure that an employee, required to be tested under this section, report to a testing center as soon as practicable, but no longer than 4 hours after the accident. Employees so notified must have been given such notification at least 4 hours before the scheduled closing time of the testing facility. If the drug test is not conducted within 4 hours, attempts to conduct the test must cease and the reasons for the failure to test documented.

5.5.3 An employee who is subject to post-accident testing who fails to remain readily available for such testing, including notifying a supervisor of his or her location if he or she leaves the scene of the accident prior to submission to such test, may be deemed to have refused to submit to testing.

5.5.4 If an employee fails or refuses to be tested, he/she must be removed from the jobsite and shall be subject to consequences in Section 6.0.

5.5.5 Nothing in this section shall be construed to require the delay of necessary medical attention for the injured following an accident, or to prohibit an employee from leaving the scene of an accident for the period necessary to obtain assistance in responding to the accident, or to obtain necessary emergency medical care.

5.6 All testing required by this section shall be administered according to the standards outlined in Section 4.0.

21 DE Reg. 503 (12/01/17)

28 DE Reg. 228 (09/01/24)

6.0 Consequences of a Positive Test Result

6.1 The disciplinary measures contained within a contractor's or subcontractor's program for an employee who tests positive to a mandatory drug test must include at a minimum, all of the following:

6.1.1 The employee is subject to an immediate suspension from any public works jobsite.

6.1.2 The employee is not eligible for reinstatement by the contractor or subcontractor to any public works jobsite until 30 days after the employee tests negative on a seven drug panel plus alcohol test certified by a medical review officer.

6.1.3 The employee is subject to unscheduled monthly random testing as per subsection 5.2.

6.1.4 An employee who has tested positive for more than 1 drug test within a 3-year period shall be permanently banned from working at public works jobsites.

6.1.5 An employee who has tested positive for marijuana, a component of marijuana, or marijuana metabolites and is a registered qualifying patient shall be exempted from the disciplinary actions contained in this section unless:

6.1.5.1 The employee was impaired by marijuana at the jobsite.

6.1.5.2 Employment of the registered qualifying patient would cause the owner to lose monetary or licensing-related benefits under Federal law.

6.2 A contractor or subcontractor shall report the positive test result to the employee's professional licensing board, if applicable.

21 DE Reg. 503 (12/01/17)

7.0 Contractor and Subcontractor Certification of Compliance with Regulations

7.1 During the term of the contract:

7.1.1 During the term of the contract, contractors and subcontractors on the jobsite for more than 30 days shall maintain testing data that includes but is not limited to the data elements contained in subsection 7.1.2:

7.1.1.1 A contractor or subcontractor that is employed on the jobsite for less than 30 days shall not be subject to the reporting requirements contained in subsection 7.1.2 of this regulation, unless the owner specifies that such reporting is required in the invitation to bid or specifications relating to the work to be performed.

7.1.2 The data shall at a minimum contain the following elements:

7.1.2.1 The number of employees who worked on the jobsite during the previous month or quarter.

7.1.2.2 The number of employees subjected to random testing during the previous month or quarter.

7.1.2.3 The number of negative results and the number of positive results.

7.1.2.4 Action taken by the contractor or subcontractor on an employee who failed or tested positive to a random test.

7.1.3 Test results must be kept by a contractor or subcontractor for a minimum of 1 year subsequent to the date of close out of the public works project.

7.1.4 Any positive test result of an employee working on a public works jobsite including the employee name and action taken in response by a contractor or subcontractor must be reported by the contractor or subcontractor to the owner in writing within 24 hours of the contractor or subcontractor receiving the test results.

7.1.5 The owner shall have the right to periodically audit all contractor and subcontractor test results at the contractor or subcontractor's offices or by other means to make the data available for inspection by the owner.

7.1.6 The failure to comply with these reporting requirements may be considered a material breach of any agreement relating to the performance of work by the contractor or subcontractor.

21 DE Reg. 503 (12/01/17)

8.0 Penalties

8.1 A contractor or subcontractor on a large public works contract that fails to implement a mandatory drug testing program in accordance with this regulation or falsifies testing results shall be subject to the following sanctions:

8.1.1 Written warning (1st offense).

8.1.2 Prohibition from bidding on new public works jobs for a period not to exceed 3 months (2nd offense) and 1 year (3rd offense).

8.1.3 For subsequent offenses, debarment or bond revocation.

8.2 Notwithstanding any other provision of this regulation, if any failure to comply with the requirements of this regulation are particularly flagrant or egregious, the owner may seek a termination for cause, a temporary suspension, a determination that the contractor or subcontractor is not responsible, debarment or bond revocation, and any other statutory, common law, or equitable remedy.

19 DE Reg. 207 (09/01/15)

21 DE Reg. 503 (12/01/17)

21 DE Reg. 645 (02/01/18)

28 DE Reg. 228 (09/01/24)
28 DE Reg. 326 (10/01/24)

EMPLOYEE DRUG TESTING REPORT FORM
Period Ending:_____

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors who work on Large Public Works Contracts funded all or in part with public funds maintain testing data that includes but is not limited to the data elements below.

Project Number: _____

Project Name: _____

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Number of employees who worked on the jobsite during the report period:_____

Number of employees subject to random testing during the report period:_____

Number of Negative Results_____Number of Positive Results _____

Action taken on employee(s) in response to a failed or positive random test:

_____

_____

_____

Authorized Representative of Contractor/Subcontractor: _____
(typed or printed)

Authorized Representative of Contractor/Subcontractor: _____
(signature)

Date: _____

This form is not required to be submitted to the Owner. Included as a reference to show information required to be maintained by the Contractor. The Owner shall have the right to periodically audit all Contractor and Subcontractor test results at the Contractor's or Subcontractor's offices (or by other means to make the data available for inspection by the Owner).

EMPLOYEE DRUG TESTING
REPORT OF POSITIVE RESULTS

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors who work on Large Public Works Contracts funded all or in part with public funds to notify the Owner in writing of a positive random drug test.

Project Number: _____

Project Name: _____

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

_____

_____

Name of employee with positive test result: _____

Last 4 digits of employee SSN: _____

Date test results received: _____

Action taken on employee in response to a positive test result:

_____

_____

_____

Authorized Representative of Contractor/Subcontractor: _____
(typed or printed)

Authorized Representative of Contractor/Subcontractor: _____
(signature)

Date: _____

This form shall be sent by mail to the Owner within 24 hours of receipt of test results.

Enclose this test results form in a sealed envelope with the notation "Drug Testing Form – DO NOT OPEN" on the face thereof and place in a separate mailing envelope.

END OF SECTION

INSERT YOUR LETTERHEAD

INSERT DATE

Warren Ellis
Project Manager
EDiS Company
110 S. Poplar Street
Wilmington, DE 19801

RE: *CSD William Penn High School* – Initial Drug Testing

Dear *Warren:*

This letter is to certify that the following employees have passed their initial drug testing in accordance with Section 5.1 of 4104 Regulations for the Drug Testing. These employees are scheduled to commence work on the project within 60 days of the date of the test.

Name	Last 4 SSN	Date Tested	Results
John Doe	1234	06/01/16	Negative
Jane Smith	5678	06/01/16	Negative
Peter Pan	9012	06/01/16	Negative

During the course of the project, all employees will be subject to random, unannounced drug testing. No less than 10% of these employees will be tested on a monthly basis. The results of this random testing will be submitted on the form from the project manual and submitted with the monthly payment application.

Sincerely,

YOUR COMPANY'S NAME HERE

NAME & SIGNATURE OF AN OFFICER OF THE COMPANY

SECTION 008115 – AFFIDAVIT OF CRAFT TRAINING

1. AFFIDAVIT OF CRAFT TRAINING

1.1 Form Affidavit of Craft Training (008115 attached).

CSD William Penn High School
713 E Basin Road New Castle DE 19720
Contract #4-27-03

AFFIDAVIT OF CRAFT TRAINING COMPLIANCE

We, the contractor, hereby certify that we and all applicable subcontractors will abide by the contractor and subcontractor craft training requirements outlined below for the duration of the contract. Craft training must be provided by a contractor and/or subcontractor for each craft on a project for which there are Delaware Department of Labor approved and registered training programs or, if the contractor and/or subcontractor meets the requirements under Title 29, Chapter 69, Section 6960A.(b)(1)c.1.-3., payment may be made in accordance with Title 29, Chapter 69, Section 6960A.(b)(1)d. A list of crafts for which there are approved and registered training programs is maintained by the Delaware Department of Labor and can be found at: https://laborfiles.delaware.gov/main/det/apprenticeship/DE%20Craft%20Training%20Occupation%20List%20Effective%20March%201%202022.pdf. If you have questions regarding craft training programs, please submit all questions in writing to the Delaware Department of Labor at: apprenticeship@delaware.gov. ***This Affidavit of Craft Training Compliance must be submitted prior to contract execution***.

In accordance with Title 29, Chapter 69, Section 6960A.(a)(1), a contract relating to a public works project under § 6962 of Title 29 must include a craft training program for each craft in the project if at the time the contractor executes a public works contract, all of the following apply:

a. A project meets the prevailing wage requirement under Section 6960 of Title 29.
b. The contractor employs 10 or more total employees.
c. The project is not a federal highway project, except for the project under Section 6962(c)(11) of Title 29.
d. There is an apprenticeship program for a craft in the project on the list of crafts under Section 204(b)(2) of Title 19.

Pursuant to Title 29, Chapter 69, Section 6960A.(a)(2), ***a contractor must commit that all subcontractors provide craft training*** if paragraph (a)(1) of this section applies to the subcontractor. Failure to provide required craft training or payment on the project may subject the successful contractor and/or subcontractor(s) to penalties as outlined in Title 29, Chapter 69, Section 6960A.(d)(1)-(3).

Craft(s): _____

Contractor Name: _____

Contractor Address: _____

_____

_____

Contractor Program Registration Number(s) _____
On this line also indicate whether DE, Other State (identify) or US Registration Number

Or

☐ **A payment has been made in the amount established under Section 204(b)(2)b.2. of Title 19, for the craft into the Delaware Department of Labor's Apprenticeship and Training Fund.**

Or

☐ **Craft Training requirements are not applicable because:**

_____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

State of Delaware)
) ss:
County of _____)

Before me, a notary public, in and for said county and state, personally appeared, _____, who acknowledged to me that she/he did execute the foregoing instrument on behalf of _____.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this ____ day of _____ 20___.

_____
Notary Public
Commission Expires _____

THIS PAGE MUST BE SIGNED AND NOTARIZED TO BE CONSIDERED.

SECTION 011100 - SUMMARY OF WORK

1. RELATED DOCUMENTS

   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Sections, apply to work of this Section.

2. CONTRACTS

   A. The work will be performed under separate prime contracts managed by the Construction Manager.

3. ALTERATIONS & COORDINATION

   A. Contractor shall be responsible to coordinate their work with the work of others, including, but not limited to, the preparation of general coordination drawings, diagrams and schedules, and control of site utilization, from the beginning of activity, through project close-out and warranty periods.

4. KNOWLEDGE OF CONTRACT REQUIREMENTS

   A. The Contractor and his Subcontractors, Sub-subcontractors and material men shall consult in detail the Contract Documents for instructions and requirements pertaining to the Work, and at his and their cost, shall provide all labor, materials, equipment and services necessary to furnish, install and complete the work in strict conformance with all provisions thereof.

   B. The Contractor will be held to have examined the site of the Work prior to submitting his proposal and informed himself, his Subcontractors, Sub-subcontractors and material men of all existing conditions affecting the execution of the Work.

   C. The Contractor will be held to have examined the Contract Documents and modifications thereto, as they may affect subdivisions of the Work and informed himself, his Subcontractors, Sub-subcontractors and material men of all conditions thereof affecting the execution of the Work.

   D. The Scope of Work for the Contract is not necessarily limited to the description of each section of the Specifications and the illustrations shown on the Drawings. Include all minor items not expressly indicated in the Contract Documents, or as might be found necessary as a result of field conditions, in order to complete the Work as it is intended, without any gaps between the various subdivisions of work.

   E. The Contractor will be held to be thoroughly familiar with all conditions affecting labor in the area of the Project including, but not limited to, Unions, incentive pay, procurements, living, parking and commuting conditions and to have informed his Subcontractors and Sub-subcontractors thereof.

5. CONTRACT DOCUMENTS INFORMATION

A. The Contract Documents are prepared in accordance with available information as to existing conditions and locations. If, during construction, conditions are revealed at variance with the Contract Documents, notify the Construction Manager immediately, but no more than three (3) days from the day the variance is first known. Failure to give timely notice shall operate to waive any claim Contractor might otherwise have for an adjustment to Contract Time or Sum as a consequence of such variance.

B. The Specifications determine the kinds and methods of installation of the various materials, the Drawings establish the quantities, dimensions and details of materials, the schedules on the Drawings give the location, type and extent of the materials.

C. Dimensions given on the Drawings govern scale measurements and large scale drawings govern small scale drawings, except as to anything omitted unless such omission is expressly noted on the large scale drawings.

D. The techniques or methods of specifying to record requirements varies throughout text, and may include "prescriptive", "open generic/descriptive", "compliance with standards", "performance", "proprietary", or a combination of these. The methods used for specifying one unit of work has no bearing on requirements for another unit of work.

E. Whenever a material, article or piece of equipment is referred to in the singular number in the Contract Documents, it shall be the same as referring to it in the plural. As many such materials, articles or pieces of equipment shall be provided as are required to complete the Work.

F. Whenever a material, article or piece of equipment is specified by reference to a governmental, trade association of similar standard, it shall comply with the requirements of the latest publication thereof and amendments thereto in effect on the bid date.

G. In addition to the requirements of the Contract Documents, Contractor's work shall also comply with applicable standards of the construction industry and those industry standards are made a part of Contract Documents by reference, as if copied directly into Contract Documents, or as if published copies were bound herein.

H. Where compliance with two (2) or more industry standards, contract requirements, or sets of requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels of quality, then the most stringent requirements, which are generally recognized to be also the most costly, is intended and will be enforced, unless specifically detailed language written into the Contract Documents clearly indicates that a less stringent requirement is to be fulfilled. Refer apparently equal but different requirements, and uncertainties as to which level of quality is more stringent, to Architect for decision before proceeding.

I. Reference standards referenced directly in Contract Documents or by governing regulations have precedence over non-reference standards which are recognized in industry for applicability of work.

J. Contractor's bid is based on the complete set of Contract Documents including documents not specifically issued as part of the bid pack but referenced in same.

6. SCOPE OF WORK/GENERAL INFORMATION

A. A Scope of Work for each contract to be awarded on the project follows in this section. When a Contract has been awarded to a Contractor, the successful Contractor will be listed after the title of the Contract. When no Contract has yet been awarded, no Contractor's name will be listed. Previous Scopes of Work include addendum changes.

B. Contractor is responsible for performing the work listed in the Summary of Work for his contract. Contractor is also responsible for knowing the work that has been assigned to preceding contracts. No additional compensation or extension of time will be allowed a Contractor due to his ignorance of the work assigned to his Contract or to other contracts which may affect his work. The Contractor is responsible, however, for all items which are covered in the Specifications and Drawings relating to their Contract if not specifically mentioned in the Summary of Work.

C. The Construction Manager will provide on-site a source for temporary electric, temporary water and portable sanitation facilities only. It is each Contractor's responsibility to make the necessary connections, including all material for temporary electric and water. Please note that utility charges for office trailers will be the responsibility of the individual Contractors.

D. A dumpster will be provided on site for free use by Contractors to dispose of non-hazardous, common, work-related refuse. Clean-up is the responsibility of each Contractor. Clean up shall be performed on a daily basis. Contractors not complying will be advised in writing and back charged for all costs associated with the cleanup of their work.

E. Contractors are reminded that there are limited storage areas available on site. Off-site storage will be the responsibility of each individual Contractor.

F. Office trailer permits off site will be the responsibility of each individual Contractor. On site Contractor's field offices, one (1) per Contractor, if required, will be located as directed by the Construction Manager.

G. Contractor will be prepared to discuss and submit a detailed project schedule seven (7) days after receipt of Notice to Proceed and to begin its submittal process. The Project Schedule is an integral part of this contract. Certain construction sequences and priorities must take place in order to meet the target dates. Concentrated work periods will occur and each Contractor is responsible to staff the project as required by the current Construction Schedule or as directed by the Construction Manager. Contractor will co operate with the Construction Manager in planning and meeting the required sequences of work and Project Schedule as periodically updated by the Construction Manager.

H. All bids must include insurance limits in accordance with Article 11 of the Section 007300 SUPPLEMENTARY CONDITIONS.

I. Hoisting, scaffolding and material handling is the responsibility of each Contractor, unless otherwise noted.

J. Contractor will be responsible for layout of its own work. The Construction Manager will provide benchmark and layout of the building line.

K. Contractor will be responsible to keep clean public roadways soiled by construction traffic on a daily basis. If cleaning is not done, the Construction Manager may perform the cleaning on an overtime basis and backcharge the Contractor responsible.

L. Contractor Scopes of Work and Schedule are interrelated. Familiarity with each is required.

M. The Construction Manager will provide testing services for soil, concrete and steel. Other testing as required by the Contract Documents will be in accordance with the technical specifications and/or the individual scope of work. Refer to Specification Section 004500 - QUALITY CONTROL.

N. Safety is the responsibility of each individual Contractor. The project will be governed under the guidelines of OSHA.

O. Inter-Contractor shop drawing distribution will be performed by the Construction Manager. Contractor is individually responsible for either coordinating his work with these distributed drawings or notifying the Construction Manager, in writing, of any discrepancies.

P. Coordination with other trades will be required. The Contractor will be required to attend periodic coordination meetings with other trades where requirements, conflicts and coordination issues will be discussed and resolved. Attendance when requested will be mandatory. If inter-Contractor coordination is not satisfactorily performed, the conflicting Contractors shall mutually share the cost to relocate and/or reinstall their work.

Q. Contractor shall submit a schedule of values to the Construction Manager prior to the submission of their first invoice for approval through Building Blok.

R. Contractor is expected to review and coordinate its Work with the complete set of Contract Documents, including all items noted as by his trade whether or not shown on that particular set of drawings. Documents are available at the site for review.

S. Contractor is responsible for obtaining all necessary permits required for his work, including street permits. Unless otherwise noted, building permit shall be secured by the Construction Manager. Any subcontractor who will be restricting access to street, right of way or adjacent property must notify the Construction Manager 48 hours in advance.

T. Contractor's License: Submit a copy of all business licenses required by local and state agencies.

U. Contractor shall absorb, without additional compensation, any and all costs of working beyond normal hours to maintain job progress in accordance with the current construction schedule.

V. No asbestos or PCB's in or on any material or equipment will be accepted or allowed on this project. All hazardous materials will be treated in accordance with all State and Federal regulations.

W. Daily cleanup of the work is the responsibility of each individual Contractor which includes broom cleaning of their debris as required. Contractor will be individually back charged by the Construction Manager for cleanup not satisfactorily performed by the Contractor.

X. In the event asbestos is uncovered, the Contractor shall notify the Construction Manager of the areas requiring removal of asbestos. The Construction Manager shall then coordinate the removal with the Owner.

Y. This project is to be constructed adjacent to existing buildings. Contractor shall exercise all due precautions to minimize noise, air pollution and any other construction hazards which in any way would cause discomfort or danger to the occupants of the existing building in the area.

Z. The Safety Cable System shall not be altered or removed without a written request submitted to the Project Manager with a copy to the Field Manager. It shall be the responsibility of each and every Contractor that is removing or altering the Safety Cable System to maintain the fall protection safety provided by the safety cable and not leave the area unprotected. Each and every Contractor shall be responsible to re-install the Safety Cable System immediately after work is completed. Each and every Contractor shall be responsible to re-install the Safety Cable System in accordance to OSHA standards.

AA. Normal work hours for this project are from 7:00 a.m. to 3:30 p.m. Any work to be performed outside of these hours must receive prior approval from the Construction Manager. Requests to work beyond normal work hours shall be submitted at least 48 hours prior.

AB. Contractor is responsible for having a competent project superintendent/foreman on-site during all work performed under its contract.

AC. In the event the Contractor has non-English speaking employees or subcontractors on the project, they shall have a superintendent or foreman on site, at all times, who speaks English and can communicate with Contractor's employees. Should the Contractor fail to meet this requirement, at any time, Construction Manager may direct all Work to stop until the proper supervision is on site. The Contractor will be responsible for maintaining the project work schedule and make up at its own expense, any delay to the Schedule resulting from the work stoppage.

AD. Punch List Procedures: Contractor shall be given a copy of the punch list with his appropriate work identified. Contractor shall have nine (9) calendar work days to complete its punch list work. On the 10th day or as determined by the Construction Manager, the Construction Manager shall employ other contractors, as required, to complete any incomplete punch list work and retain from the appropriate Contractors retainage all costs incurred.

AE. Contractor shall provide the necessary safety barricades and railings required to complete

their work and comply with all OSHA, local code and contract specifications.

AF. Prohibition of Using Photographs on EDiS Projects: The Contractor and all associated subcontractors agrees to not issue any news release or advertising pertaining to the Work or the Project, including references to the Project on the Contractor's/subcontractor website or other social media outlets, without obtaining EDiS' prior written approval, in each instance. The Contractor, for itself, its employees, vendors and subcontractors, agrees to not use the name of the Owner, the Project, EDiS or any photographs, videos, or other images of the Project in connection with any of Contractor's business promotion activities, advertising, website, social media outlets, or operations, without EDiS' prior written approval in each instance.

AG. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

AH. All contractors must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

AI. Where there is a discrepancy in scope assignment between contract documents, the order of precedence will be as follows: Summary of work, Design Drawings, Design Specification.

CONTRACT NO. B-01: CONCRETE AND REINFORCING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 03	Concrete
Section 033000	Concrete
Division 07	Thermal and Moisture Protection
Section 071300	Sheet Waterproofing
Section 072100	Thermal Insulation
Section 072600	Under-Slab Vapor Barrier
Section 079100	Preformed Joint Sealants
Section 079200	Joint Sealants
Section 312000	Earth Moving
Section 312300	Excavation and Backfill for Pipeline and Structures

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide concrete footings, foundations, foundation walls, piers, wall footings, grade beams, slabs on grade, structural pads, equipment pads, etc. and all excavation, backfill, stone subbase, forms, and reinforcing required. Note: the following buildings are included in this scope of work, Field House, Maintenance Building, Concession Buildings 1 & 2, Batting Cages and Baseball/Softball Restrooms. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

2. This Contractor will be responsible for laying out all concrete work as shown on the structural and architectural drawings and certifying the layout. Provide certification in writing to CM for their records.

3. This Contractor to furnish and install reinforcing steel, admixtures, curing compound, sealers, accessories, bolsters, ties and braces as required in the Contract Documents and for the performance of the work of this contract.

4. Provide Preformed Joint Seal systems and all Joint Sealants related to work of your contract.

5. This contractor shall provide installation of sleeves required for MEP lines, under footings, below frost walls, under thickened slabs, etc. This includes all excavation and backfill required for these installations. (sleeves will be supplied by the contractor installing the services) Coordinate with Arch and MEP documents for full extent of this work.

6. Provide all door stoops, pads, entrance/exit concrete complete as detailed on the structural and architectural documents. This will be out of sequence work, contractor to include (5) re-

mobilization to perform work out of sequence, this shall include premium costs for short load concrete pours, concrete pumps, contractors' equipment costs and misc. small tool expenses. For each mobilization the contractor shall communicate in writing to the CM that they are remobilizing and utilizing one of the (5) remobilizations included in their base bid. Until all (5) mobilization as described are completed, no claims for costs related to this work will be accepted.

7. Provide exterior concrete slabs, turndown slabs, equipment foundations and housekeeping pads as shown on the contract documents.(all contract documents) This will be out of sequence work, contractor to include (3) re-mobilization to perform this work out of sequence, this shall include premium costs for short load concrete pours, concrete pumps, contractors' equipment costs and misc. small tool expenses. For each mobilization the contractor shall communicate in writing to the CM that they are remobilizing and utilizing one of the (3) remobilizations included in their base bid. Until all (3) mobilization as described are completed, no claims for costs related to this work will be accepted. **The exterior concrete slabs are indicated as structural on the drawings and are provided by this contractor. The Site contractor would own the standard sidewalks which are indicated as "civil" on the drawing notes**

8. Provide thickened slab footings at all interior CMU walls as shown on the structural and architectural drawings including all notes and the contract specifications. This contractor owns the coordination and verification of all thickened slabs, haunches etc. whether identified on structural or architectural documents, including the contract specifications.

9. Underslab vapor barrier, insulation, reglets, waterstops, control and construction joints (including required caulking at control and construction joints).

10. Provide foundation wall insulation and insulation under slabs. Include backfill of all foundation walls as detailed. Stone under slab to be provided by this contractor. Include at no additional cost re-dressing the stone after the MEP contractors have installed their UG work.

11. Placement of related items furnished under other Specification Sections.

12. Anchor bolts and leveling plates to be installed by this Contractor and furnished by the Structural Steel contractor. Installation within required tolerances. Anchor bolt assemblies to be placed with templates only. This contractor shall include grouting of the leveling plates.

13. Contractor shall supply signed/sealed engineered drawing as-builts to steel the erector for coordination prior to steel placement. This engineered sheet shall be reviewed by the CM, Steel contractor and this contractor at a site meeting in person before acceptance by all parties. Steel erector must sign off that the placements are accurate and accepted. If there are discrepancies; ownership of the error, corrective actions and costs of the repairs shall be identified and assigned to the responsible contractor.

14. All blockouts and embedments required by plans and specifications.

15. This Contractor is responsible for grouting all structural steel base or leveling plates.

16. Include all weather, frost protection, and water pumping as required. This Contractor is also responsible for the premiums required for hot water, heated aggregate and admixtures for cold

weather concrete.

17. Coordinate the "Notch" in the concrete slabs to allow for a future Contractor to easily install expansion joint details.

18. Provide dewatering after acceptance from Sitework Contractor until re-acceptance by the Sitework Contractor.

19. The sitework contractor is to provide a flat, compacted surface at subgrade prior to the start of foundation layout and installation. This contractor shall furnish, install and maintain the stone underslab for the SOG area and structural pads. Written acceptance of the building pad condition will be provided by the concrete contractor before foundation work proceeds. Once the Concrete Contractor has accepted this work it will be the responsibility of the Concrete Contractor to maintain and dewater the building pad and all excavations until the concrete work is complete and backfilled. The Concrete contractor is to provide access to foundation excavations for the Masonry contractor. Concrete contractors own dewatering during masonry and waterproofing work and backfill after foundation masonry work is complete. Spoils left after backfilling of foundations is complete are to be left outside the building perimeter by the concrete contractor in pre-determined stockpile location in accessible areas. The material will then be gathered by the sitework contractor and spread on site. Concrete Contractor will also be responsible for additional excavation and backfilling within the building as may be required to accommodate the sloped floors, varying slab thicknesses, depressed slabs and grade changes. Close coordination with the Sitework, Masonry, Mechanical and Electrical Contractors is required.

20. This contractor shall re-grade the stone slab areas to prepare for the vapor barrier installation after "all" other contractors have installed their UG work. This includes but is not limited to UG work associated with MEP trades.

21. This contractor shall provide all de-watering measures as required to perform the work of their contract. Refer to Geo-Tech reports for estimated ground water depths and prepare your bid accordingly.

22. Additionally, over and above de-watering for your course of work, provide (2) 2'x2' crocks, stone infill and sloping of graded area to allow for general de-watering as directed by CM. Areas of use to be coordinated with Superintendent on site.

23. This contractor shall provide all excavation to depths and areas required to allow proper forming, pouring and stripping of all concrete work identified on the contract documents. (All contract documents, not just Structural's)

24. Provide and maintain perimeter fall protection at excavated area per OSHA standards. Orange barrier fencing shall be utilized, no caution take will be allowed.

25. Provide certified anchor bolt verification drawings to the Construction Manager for review prior to steel erection.

26. Asphalt concrete paving and Portland cement concrete paving, sidewalks and curbs shall be provided by others.

27. All concrete testing will be completed by the Construction Manager; however, it will be the responsibility of this Contractor to furnish all samples.

28. Provide off site disposal of all unsuitable excavated materials.

29. Construction Manager to ensure that FF/FL compliance is verified by an independent testing agency within 48 hours of completion of pour, per ACI (Section 8.15.4). A report must be provided to the concrete contractor within 72 hours of pour per ACI to allow corrective action.

30. Provide specified sloping for floor drains/trenches as detailed (Drains to be furnished by Mechanical Contractor.) This contractor to communicate and review drain sloping with CM before each pour.

31. This Contractor shall include the finishing of concrete slabs around all stub ups, conduits, drains etc. as indicate on project documents. The items will consist of electrical boxes, stubbed conduits, mechanical piping and electrical and technology conduit stubs, etc. Include finishing around (30) un-identified items within your base bid.

32. This Contractor shall also include all work included in finishing the concrete floors to a minimum of (25) floor drains and or trench drains. Include all sloping and beveling to create a positive flow to the drains. Sloping to be reviewed with the CM prior to each pour.

33. This Contractor shall provide written documentation that all concrete slabs are within the tolerance required by the contract documents.

34. There shall be no minimum number of square feet required or mandated by the contractor for S.O.G pours.

35. Provide all foundation and below slab waterproofing. Provide waterproofing at blind side of concrete footings and all foundations. (sheet waterproofing and protection board included) Include all testing as specified. This contractor shall provide de-watering of the areas to receive waterproofing as well as cleaning and drying of the surfaces prior to application.

36. This contractor owns coordinating all slab depressions identified on the documents with the products, flooring, insulation etc. shop drawings and layout drawings for each material that will be installed in the recess. A pre-install meeting will be held to review this information before each depressed pour.

37. Provide Column diamond protection after floor pours are completed at all recessed columns to meet OSHA Requirements. 1926.502(i)(2) All other covers shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.

38. Provide all means of transporting concrete including, but not limited to: pump trucks, cranes, ramps, chutes, buggies.

39. Provide at least 48 hours' notice prior to any delivery. All deliveries are to be between 7:00 AM and

3:30 PM.

40. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.

41. This contractor must provide a silica exposure plan that meets or exceeds the silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

42. Provide daily fine cleanup of the work is the responsibility of each individual Contractor which includes broom cleaning of their debris as required. Daily Fine clean up, on a daily basis, shall be defined as those means/methods utilized to perform the daily cleaning tasks without producing dust, noise and stacking of stored materials. Furnish fine clean up on a daily basis. All debris must be removed from the work area at the end of each workday to the appropriate dumpster. Cleaning of roadways shall be included and performed daily while this contractor is on site performing work of this contract.

43. Provide generators and other means for temporary services for the completion of your work.(CM/Owner will not provide temporary power)

44. All materials excavated for installation of footings and foundations shall immediately be protected with appropriate moisture protection. This Contractor owns protecting excavated backfill material from exposure to wet conditions.

45. Provide pricing for alternates as described in Section 012300-Alternates.

46. This contractor shall include an allowance amount of $30,000 within the base bid for work to be identified by CSD and the CM. All unused portions of this allowance to be returned to the owner.

CONTRACT NO. B-02: STRUCTURAL STEEL, JOISTS, DECK AND MISC. METALS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 05	Metals
Section 051200	Structural Steel
Section 052100	Steel Joist
Section 053100	Stemhmel Deck
Section 055000	Metal Fabrications
Section 055133	Metal Ladders

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide structural steel, joists and metal floor and roof decking.

2. Provide all miscellaneous steel as required by the contract documents including but not limited to gauged steel support angles, metal stairs, metal ladders, lintels, etc. Loose lintels will be delivered only, all other Misc. Metals items and gauged angles will be furnished and installed. Note: the following buildings are included in this scope of work, Field House, Maintenance Building, Concession Buildings 1 & 2 and Baseball/Softball Restrooms. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

3. All lintels for CMU and Brick walls will be steel; no concrete lintels will be utilized.

4. Furnish Misc. Anchor bolts and plates as required for the bleacher system installation.

5. Furnish anchor bolts and leveling plates to the Concrete Contractor for placement in concrete piers.

6. Furnish Cable protection and flags as required during and after erection of steel. (flags must be installed as cable is installed) Provide warning lines with flags for swing radius and work areas (include Signage)

7. Field check all anchor bolts prior to beginning erection and sign the anchor bolt survey drawing provided by the concrete contractor.

8. Roof sump pans and related work, including supporting steel frames, braces, brackets etc. related to roof drains. (as indicated)

9. Framing out for openings (roof drains, mechanical openings, access hatches, etc.). Assume opening frames will be field installed. This contractor shall provide "all" floor opening and roof deck opening frames, angles, reinforcing, clips, welding etc. as indicated on the contract documents.

10. Prime paint systems, galvanizing, and related finishing of steel items, including touch up. Provide

11. Furnish, install, maintain and remove perimeter safety steel cables at roof level to conform with all OHSA standards for all trades. Install flagging on cabling at time of installation.

12. The Steel Contractor will own all connections to masonry whether they are field welds or shop welds. Conditions that require in field welding and assembly are the responsibility of this Contractor. Field coordination with the masonry installer will be this Contractor's responsibility.

13. All steel testing will be the responsibility of the Construction Manager; however, this Contractor will co operate with the testing agency in the inspection at the fabrication shop and in the field.

14. Layout, installation and alignment of attachments at the slab edge condition.

15. No electrical power for this contractor's equipment or welders will be provided. Electrical power to be provided as needed by this contractor.

16. Provide data and submittal information related to the Scope of this Contract signed and sealed by a Professional Engineer as required by the Contract Documents.

17. This Contractor shall fabricate, weld and install all reinforcing anchors that connect the structural steel to the masonry systems. Provide all shop fabrication, field installation and field welding regardless of the weld symbols.

18. This Contractor shall include all necessary staging, rigging, matting and remobilizations to accommodate this erection sequence. Sequencing of work will need to be coordinated with CM and other trades.

19. Remove, modify, and replace the plywood covers installed by the concrete contractor at all Diamonds during the erection of steel, as required to meet OSHA requirements.

20. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

21. This contract shall include in their bid the necessary crews to complete the work as per the project schedule. Provide additional crews as required to maintain schedule at no additional cost to the project.

22. Provide pricing for alternates as described in Section 012300-Alternates.

23. This contractor shall include an allowance of $30,000 for work to be identified and assigned by the owner/CM. Any unused portions of the allowance will be returned to the owner.

CONTRACT NO. B-03: UNIT MASONRY

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 033000	Concrete (coordination)
Section 042000	Unit Masonry
Section 044316	Stone Fabrications
Section 070553	Fire and Smoke Assembly Identification
Section 072100	Thermal Insulation
Section 072500	Weather Barriers
Section 072640	Sprayed Polyurethane Foam Insulating Air Barrier
Section 076200	Sheet Metal Flashing and Trim
Section 078400	Firestopping
Section 079100	Preformed Joint Sealers
Section 007900	Joint Sealers

This contract provides and includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide masonry work indicated on the construction documents, including but not limited to masonry units, cast stone, stone fabrications, reinforcing, grout, accessories and related work. Note: the following buildings are included in this scope of work, Field House, Maintenance Building, Concession Buildings 1 & 2 and Baseball/Softball Restrooms. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

2. Provide all special shape, cast stone masonry and custom masonry units as defined in the construction documents.

3. This contract shall provide all Sprayed Polyurethane Foam Insulating Air Barrier, and all “Self-Adhering Flashing Tape” at all locations (vertical and horizontal) behind vertical brick, block, metal panels, canopies and overhangs. The Flashing tape shall be applied to seal all exterior openings, including but not limited to doors, louvers, windows, curtain walls, storefronts etc. This includes all exterior sheathed areas, and block back up areas, whether behind masonry or not. Include spray insulation termination angles as needed for the spray foam insulation installation Coordination of work with other trades shall be required and final installation work to be coordinated with project schedule and CM. Provide a “complete system” in its entirety for this project.

4. This contractor shall include multiple mobilizations within their base bid amount to accommodate the exposure time recommendation for the sprayed insulation, special coatings and self-adhering flashing tape in all areas per the construction schedule and project phasing. (include all "Blueskin" application as required)

5. This contractor shall provide installation and coordination of sleeves required to go through any masonry walls above finished floor elev. 0.00. Coordinate with the MEP contractors for sleeves (to be provided by MEP contractor) and coordinated/installed by the Masonry contractor.

6. Provide all caulking and sealants for masonry to masonry and masonry to dissimilar materials.

7. Integral masonry flashings, expansion joints, insulation and other related items as required.

8. Mock up as required. Provide a complete mockup of all masonry items within a sample wall to be coordinated by the CM. This contractor to provide and install the concrete footing required for the mock up. Include demolition, removal and clean up of the mock up area.

9. Grouting of door frames at all masonry openings. Include grouting of HM vision panels in CMU.

10. Weather protection and temporary heat as required to perform the work and maintain the project schedule. This would include tenting, tarping, heating (providing fuel and equipment), installation, maintenance and removal. Kerosene is not an acceptable fuel for work within the interior spaces.

11. Layout of the work including responsibility for all elevations and dimensions as they affect other Contractor's work.

12. Lintels either required by this Contract or install loose lintels furnished by others. Include bolting or welding of lintels as per details. "All lintels will be steel, and provide by the steel contractor for your use.

13. Provide mixing stations as required to perform your work. The station locations shall be coordinated with the CM The mixing area shall be protect as required by DNREC and it shall be this contractors responsibility to maintain the station area at all times. Remove all components and restore area when work of this contract complete.

14. Concrete fill/grout at all masonry units as identified.

15. Provide a concrete dumpster to collect and remove the spoils from all masonry grouting operations.

16. Purchasing and installing reinforcing steel in block walls.

17. Provide all fire safing/fire stopping, and continuous fire sealant at top and bottom of masonry walls as shown on the contract documents. Also include these sealants at all steel penetrations through the provided masonry.

18. This contractor shall provide the required firewall/smoke wall assembly identification for work of this contract. All masonry walls shall be sealed at the top.by the contractor.(labelling of the walls with fire rating)

19. Interior exposed masonry walls shall be cleaned and scraped thoroughly; a second pass of scraping and refining the cleaning shall be included in the base bid. CM to review and coordinate second pass with the masonry foreman in the field.

20. Temporary protection for final wash down/cleaning of masonry. This includes covering and protecting the windows and doors as necessary.

21. This contractor shall supply and install straw at the base of wall when work of this contract has been completed to stop splashing of mud and water on completed walls.

22. Flashing at locations indicated on drawings for your work.

    a) Thru wall and cavity flashing below the roof line shall be by the Masonry Contractor.
    b) Thru wall and cavity flashing above the roof line shall be by the Roofing Contractor.
    c) Flashings at rising wall conditions shall be provided by this contractor.

23. Cutting, fitting and building into masonry work, embedments provided by others. Coordinate all work with other trades as required.

24. Provide all firesafing and fire caulking as required for your course of work.

25. Provide masonry veneer anchors as required for your course of work.

26. Bond beams including supplying and installing reinforcing and fill.

27. Furnish and install all masonry veneer anchors where required. Welding of anchors that are not shown to be fabricated with the structural steel shall be welded in place as needed by this contractor.

28. Masonry contractor shall supply and manage dumpsters for use in removal of masonry debris. The project dumpsters may not be used for masonry debris.

29. Mockup as required. Provide your portion of a complete mock-up of the exterior wall assembly. Coordinate with the CM.

30. Provide generators and services as required to provide temp power, water etc. as needed for your course of work. CM/Owner will not be supplying any Temporary power.

31. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

32. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

33. Provide pricing for alternates as described in Section 012300-Alternates.

34. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

35. Include within this contracts base bid an allowance of $35,000 for work to be determined by owner and construction manager. Unused allowance funds to be returned to the owner.

CONTRACT NO. B-04: GENERAL TRADES – Includes, but not limited to: CARPENTRY, CFMF, WOOD TRUSSES, GYP ASSEMBLIES, DOORS, FRAMES and HARDWARE, ALUMINUM STOREFRONTS & WINDOWS, ACT CLGS, ARCHITECTURAL SPECIALTIES, CASEWORK & TRIM, ROLL-UP DOORS & GRILLS, BASEBALL/SOFTBALL DUGOUTS, JOINT SEALANTS, CERAMIC TILE, METAL and CEMENTITIOUS SIDING and METAL ROOF on MAINTENANCE BUILDING and DEMOLITION of EXISTING FOOTBALL STADIUM WOODEN PRESS BOX.

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 024100	Demolition
Section 055000	Metal Fabrications (related work)
Section 054000	Cold-Formed Metal Framing
Section 054400	Cold Formed Metal Trusses
Section 061000	Rough Carpentry
Section 070553	Fire and Smoke Assembly Identification
Section 077100	Roof Specialties (blocking coordination)
Section 072100	Thermal Insulation
Section 072640	Spray Polyurethane Foam Insulating Air barrier (coordination)
Section 072500	Weather Barriers (coordination with mason contractor)
Section 078400	Firestopping
Section 079100	Preformed Joint Sealants
Section 079200	Joint Sealants
Section 081113	Hollow Metal Doors and Frames
Section 083100	Access Doors and Panels
Section 083300	Rolling Service Doors
Section 084313	Aluminum Framed Storefronts
Section 087100	Door Hardware
Section 080671	Door Hardware Schedule
Section 088000	Glazing
Section 089100	Louvers
Section 092116	Gypsum Board Assemblies
Section 095100	Acoustical Ceilings
Section 102113	Plastic Toilet Compartments
Section 102800	Toilet Accessories
Section 104400	Fire Protection Specialties
Section 105100	Metal Lockers
Section 116833	Baseball/Dugout Equipment
Section 116843	Exterior Scoreboards (Baseball & Softball)
Section 116843	Exterior Scoreboards (Football & Track)
Section 116844	Stadium Scoreboard & Outdoor Live Display
Section 123600	Countertops, Backsplashes and Window Stools
Section 129300	Site Furnishings

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all cold formed metal framing, sheathing, insulation, metal stud framing, gypsum assemblies and drywall as indicated on the contract documents. (includes CFM Trusses) **NOTE:** This contractor owns all contract documents, which includes but is not limited to the following areas of work, Field House, Maintenance Building, Concession Buildings 1 & 2, Batting Cages and Baseball/Softball Restroom. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

2. Provide metal studs, framing, insulation, gypsum wallboard, taping, spackling and specified wall finishes. Include all trims and finish pieces for a complete installation.

3. Provide all engineered metal truss roofing systems complete, including all delegated design requirements. (include within your base bid expedited shop drawing submissions and reviews)

4. This contractor shall be responsible to coordinate with the masonry contractor as related to the exterior wall assembly and the installation of the spray foam insulation system. installation.

5. Include fire taping and sealing at perimeter edge and as shown or indicated in the contract documents.

6. Provide required caulking at control and construction joints.

7. Provide all preformed joint sealant products if indicated on the documents.

8. Masonry to masonry joint sealants to be provided by contract B-03 Masonry, all of joint sealants by this contractor.

9. Provide caulking of vertical joints on exterior metal/cementitious siding panels to adjacent materials

10. Provide caulking related to interior glazing. Caulking of interior perimeter of new aluminum windows, storefront and curtainwall to finished surfaces to be provided by this contract.

11. Provide caulking of exterior perimeter of hollow metal door frames, including overhead doors.

12. Provide caulking of interior perimeter of hollow metal door frames to masonry. (HM frames to drywall shall be provided by the Painting contractor)

13. Provide caulking of all hollow metal frames to the floor. Coordinate caulking with flooring materials.

14. Provide caulking of all interior exposed drywall to masonry and metal wall panels.

15. Provide caulking at the tops and bottoms of all exterior and interior column covers.

16. Provide caulking of all interior exposed concrete slab control joints, expansion joints and perimeter slab to walls.

17. Provide caulking for interior perimeter of sinks, urinals, toilets, bath accessories, toilet partitions, fire extinguisher cabinets, hose reel cabinets, gas cabinets and any other accessories identified on the contract documents. (work as indicated on contract documents)

18. Provide caulking of joints in ceramic tile areas, including and ceilings.

19. Examine areas and conditions where joint sealers are to be installed and correct any conditions detrimental to the proper and timely completion of this scope of work. Do not proceed with work until unsatisfactory conditions are corrected to permit proper installation.

20. Provide mock ups of all products and adhesion tests for exterior caulking.

21. Provide custom colors or all caulks and sealants.

22. Protection and cleaning of adjacent surfaces to be the responsibility of this contractor.

23. This contractor shall include the Pollution Insurance coverage as specified in the contract documents.

24. All subbase preparation, priming etc. to be performed before caulking is applied.

25. Provide architectural expansion joint systems, including joint covers materials at concrete slab, drywall and masonry construction (interior and exterior)

26. Steel stud construction as related to the roof parapet construction.

27. Steel stud construction related to framing out for openings in exterior walls.

28. Provide secondary support framing as required.

29. Clips, anchors, supports and other accessories that interface between steel framing and steel studding and steel studding with masonry interaction.

30. Expansion systems as required for performance of your course of work.

31. Scaffolding, lifts, and all necessary equipment required for your contract's course of work.

32. Provide engineered drawings (delegated design requirements.)

33. This contractor shall be responsible for coordinating with other trades for exterior openings and layout of design features.

34. Provide labor and materials to perform the work related to all carpentry and general work.

35. Provide all glass and glazing.

36. All rough carpentry related to the exterior skin of the building and roof areas, including wood nailers and blocking, roof blocking, curb blocking, MEP blocking coordinated with MEP trades. This will include all galvanized angles at blocking locations for support as detailed.

37. All rough carpentry related to the interior of the building including blocking, wood nailers, etc. for the installation of fire extinguishers, doors, windows, toilet accessories, cabinets, toilet partitions, counter tops, AED's, rollup doors, coiling doors, and accessory blocking, etc. including fire treating as required. Provide all roof framing, wall framing and sheathing

38. Provide all counter tops, back splashes and accessories.

39. Provide and install plywood back boards on all wall areas, floor to ceiling in all electric, MDF and IDF rooms. Backboards to be ¾ inch plywood, painted one side with white Fire Proof paint and fire caulked to the walls tightly.

40. Provide blocking and anchoring for all roof ladders, TV and monitor mounts, Visual display boards, chalk, tack, white board assemblies, lockers etc. Coordinate with other trades for locations and installation direction.

41. Provide blocking for door hold opens, wall mounted closers, and wall door stops.

42. Install Aluminum storefront vision panels and provide glazing for these panels (door contractor to supply frames)

43. Provide and install metal doors and frames, including receipt of doors and frames at the curb side. Contractor shall receive the doors, frames and hardware and inventory immediately. This contractor responsible for safe keeping of all materials and shall provide written documentation that all materials were received. All hardware shall be secured in a fully locked and protected area. By this contractor.

44. Provide and install finish hardware related to all doors (hollow metal, wood and coordinate keying with aluminum hardware) including receipt of hardware at the curb side. This contractor is responsible for coordinating door hardware with their work to ensure each opening is properly prepped for hardware being supplied by others. All low voltage wiring within the doors and frames to be installed by this contractor. Conduits and raceways will be provided by the electrical contractor, as well as installation of the electrical supply power and the final power connections to equipment. Final connections of low voltage wiring to hardware to be provided by the Special Systems contractor. This contractor to work with the electrical contractor and Special Systems contractor to provide a complete installation. Salto hardware will be supplied by the Special Systems contractor and installed by this contractor.

45. This contractor shall advise the hardware supply contractor of any deficiencies or missing item immediately after initial inventory (in writing) as installation takes place. Reporting and tracking is the responsibility of this contractor.

46. All field trimming required to adjust to the existing in place conditions shall be part of this contractors scope of work. Field measuring and verification is to be included.

47. Anchoring devices, fasteners, inserts and other related items associated with the installation of the above items.

48. Provide all architectural louvers, including insulated panels etc. All louvers are to be included within this contract, they are shown on the architectural drawings and specs and referenced by MEP documents. Provide 'custom" color costs in the base bid. This contractor shall coordinate with other trades for integration of the louvers into their course of work. All material handling and on site protection of the louvers is this contractors responsibility.

49. Provide blocking and support for the Visual Display Boards and Display Case

50. Provide all Plastic toilet compartments, toilet accessories, fire protection specialties and metal lockers.

51. This contractor shall provide and install all Site Furnishings as detailed in the contract documents. Include all work related to this course of work, concrete pads, anchoring, touch up paint etc.

52. **This contractor is to provide all work associated with Section XXXXXX Baseball/Dugout Structure, Slabs and Equipment.**

53. This contractor to coordinate all card reader blocking requirements with Special Systems contractor.

54. This Subcontractor shall at a minimum provided, maintained, and inspect for the length of the project, one temporary fire extinguisher for each 3,000 sq. ft of the protected building area. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet. In multistory buildings, at least one fire extinguisher shall be located adjacent to stairway. Fire extinguishers shall be at least 10lb, Multi-Purpose (ABC) dry chemical, UL labeled, with a rating of 3a:40bc. Maintain for the duration of the project until substantial completion to ensure coverage and compliance.

55. Coordinate electrical requirements with any automatic door operations. This contractor owns all controls, switches and wiring as required for a complete system. Power to be supplied by Electrical contractor.

56. Provide Knox Boxes coordinated with the local fire company for installation at locations identified by the owner/CM.

57. This contractor will work with the Special Systems contract to allow the installation of harnesses, whips and connections while installing frames, doors, hardware and access controls.

58. Provide (2) scaffold stairways at the Field House, to be erected to accommodate OSHA Compliant access to the roof area from the exterior of the Fieldhouse. Include a rental duration of 9 months.

59. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

60. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

61. Layout of the work including responsibility for all elevations and dimensions as they affect other Contractor's work.

62. Provide all work related to the building mock up, blocking, installation of door frame, doors, hardware, flashings, fasteners etc. as it relates to mocking up of the systems included in this contract scope.

63. This contractor shall provide temporary rails at all exterior opening on the building until permanent window/doors/curtainwall etc. installed.

64. This contractor shall include protective wooden covers and marking for any floor openings, holes, shafts etc. Include labelling of the covers with clear and readable markings or stickers.

65. This contractor shall provide and include all costs associated with installing temporary doors and windows at the exterior of all building (all openings)

66. Provide wood safety barricades to OSHA required height during construction. These rails shall be installed immediately after the roof blocking is installed. These rails/barricades shall stay in place and be maintained until all activities on the roof area are complete or as directed by the CM. Coordinate removal, roof patching etc. with roofing contractor and CM.

67. Comebacks and out-of-sequence work may be required and as such should be included in your base bid proposal.

68. Coordinate Self Sealing Flashing installation at base of wall assemblies and flashed areas. with Masonry contractor who is providing. This contract to provide any required metal flashings for your course of work.

69. Provide fire resistant joint sealants, fire safing, fire stopping, as it relates the work of your contract.

70. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

71. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

72. Layout of the work including responsibility for all elevations and dimensions as they affect other Contractor's work.

73. This contract shall include in their bid the necessary crews to complete the work as per the project schedule. Provide additional crews as required to maintain schedule at no additional cost to the project.

74. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

75. Include all necessary field measurements.

76. Include three (3) passes per floor to "touch-up" mechanical penetrations to ensure ratings required. The first pass will be required prior to ceiling grid installation and the second pass will be required prior to final inspection for Certificate of Occupancy.

77. Bidders are advised to pay particular attention to top of wall conditions, fire and smoke safing of slabs and acoustical sealants. This work is include within the scope of this contract.

78. This contractor to provide caulking at the base and top of drywall partitions, furred walls and all drywall conditions.

79. This contractor shall work with other trades to install openings that are in wall assemblies being constructed.

80. Provide metal furring as required.

81. Engineered shop and installation drawings. (delegated design, with expedited submission and review costs included)

82. Provide complete acoustical ceiling systems to include suspension system, hangers and all required components for a complete system.

83. Acoustical lay in insulation blankets and rigid panels above ceilings and behind wall grid systems as identified in the contract documents.

84. Supplemental suspension hangers at large ducts above ceilings and at openings for lighting fixtures shall be provided and coordinated to minimize exposed clips, anchors, and wires.

85. Continuous acoustical sealant on back of vertical leg before installing moldings as indicated

86. Furnish and install hold down clips where required by governing regulations for fire resistant ratings.

87. Provide all material handling, scaffolds, lifts, Spyder cranes, access to work etc. as required for the scope of this contracts work.

88. Expansion joints for all acoustical ceilings, specialty ceilings and acoustical systems.

89. Provide ceiling grid layout on floor for cassette and duct placement in ceiling grid system.

90. This contractor shall review all documents, shop drawings, plans, and drawing model for ceiling height issues. All issues shall be reported to the EDiS prior to installing wall angles.

91. This Contractor shall cut openings in ceilings for sprinkler heads, lights, mechanical diffusers and grilles, etc. Coordinate work with other trades.

92. Coordinate with other trades for layout and install of their materials into the grid system provided by this contract.

93. Attic stock as per the contract documents, delivered, inventoried, and moved to a storage area within the building at the owner's direction.

94. Provide all site furnishings.

95. Provide all rolling service doors, overhead rolling doors and rolling counter shutters as required by the contract documents. To include but not limited to exterior and interior coiling doors systems. Hardware, openers, buttons and controllers required for a complete system shall be provided by this contractor.

96. Provide all overhead coiling grilles.

97. Provide all overhead counter doors.

98. Include all wall framed openings and openings including trims, flashings, and sealants as required to perform your course of work.

99. Provide additional supports for overhead coiling doors. Structural members identified on the structural drawings are not part of this contract scope. Provide ancillary steel, connectors, all thread and other misc. items as required. Coordinate all electrical and special systems requirements for work of this contract with the appropriate contractors. Provide keyed switches for both electric and low voltage to match building keying.

100. Keying coordination for all lock sets. (coordinate with same hardware system as Door Hardware supply contract.)

101. Coordinate electrical requirements with any automatic overhead door operations.

102. Provide low-voltage wiring required for overhead doors automatic door operations. Include all raceways, boxes and switches required for a complete installation.

103. Ensure doors fully open the entire height of the door opening and close with the bottom edge touching the ground. Doors will fit square in the openings with no gaps along the top, bottom or sides when the door is closed.

104. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

105. Provide all sensing and safety devices as specified for each assembly to provide a complete assembly.

106. Exterior overhead doors and grilles shall have the appropriate specified seals, and weatherstripping at all edges. Top, sides and bottom. Seals shall maintain water tightness when installed.

107. Provide ceramic tile, marble tile, quarry tile, base material and thresholds as required by the contract documents, complete.

108. Provide all mortar bed installations as directed by the specifications and drawings.

109. Grout, including Epoxy grout and custom colors as specified.

110. Cutting and fitting around work installed by others.

111. Provide waterproofing and crack-isolation systems as required by contract documents.

112. Precast mop receptors as per contract documents.

113. Patching and leveling of "new" concrete system to be included in this contracts base bid. Contractor to review concrete floor installations ad report any deficiencies in tolerance prior to mobilizing for any tile installation.

114. Provide protection of finished products until acceptance by Construction Manager. This contract shall include the material and labor to cover all ceramic tile areas with Ramboard panels (not roll material or corrugated plastic panels. Seams to be taped and sealed for effective protection.

115. Provide crack suppression membrane for this set tile installation.

116. This contractor to coordinate work of this contract with contractor installing cement backer boards to receive your tile.

117. Provide metal strips and Schluter strips installed as part of the tile installation.

118. Provide all metal panels and accessories as indicated on the contract documents. This includes all panels associated with the stadium, field house and all out buildings as shown.

119. The spray installation system will be provided by the Masonry contractor, however this contractor is responsible to coordination. Specifically for installation durations and the completeness of the installation of the Z furring system this contract is providing. Timely installation to not impact the spray foam installation is required by this scope of work.

120. Provide all fascia's, soffits, overhangs etc. as required for a complete system. Complete system includes all caulking and sealants as required by the provided system.

121. Flashing of panels integral with the panel system.

122. Coordinating, cutting and fitting around the work of other trades is required by this contract and should be part of your base bid work.

123. Caulking of panels as required to provide a complete system. Vertical joints where metal panels meet adjacent materials shall be caulked by this contractor.

124. Miscellaneous metal items necessary to support panels other than required structural steel.

125. Furnish anchorage items for embedding into other construction for support of panels.

126. Galvanized, epoxy or stainless steel, etc. anchors as specified.

127. Metal fascias and copings related to the panel system

128. All material handling, lifts, cranes etc. are the responsibility of this contractor.

129. Verification of field dimensions is the responsibility of this Contractor. Coordination and review window openings, door openings and others during the shop drawing process is required so materials can be ordered to accommodate schedule. Material may be required to be ordered in advance of the ability to field measure. This coordination is the responsibility of this contractor.

130. Provide all flashing as identified with the metal panel installation. Provide all hat channels and sub-girts for the panel installation. Coordinate with the work of other contractors related to the spry foam installation.

131.Provide all Roof Bar Snow Guards as shown on design drawings for Maintenance Building.

132. Furnish and install hollow metal doors, frames, vision panels and finish hardware. Note: the following buildings are included in this scope of work, Field House, Maintenance Building, Concession Buildings 1 & 2 and Baseball/Softball Restrooms. (review Alternate section as it applies)

133. Keying. All lock sets. Provide Owner with a complete schedule of all keying and pin schedules as required. (coordinate keying schedule with CSD)

134. Construction door cylinders shall be provided by this contractor for use during construction.

135. All exterior Hollow Metal frames shall include a box and raceway built into the door frame for

locations at the latch and hinge as required. Provide a box and raceway at the head of the frames for door contact access and installation.

136. This contractor shall coordinate the hardware and door materials with the electrical contractor prior to ordering materials. Including but not limited to all coordination meetings with the Owner, CM electrical contractor and Special Systems contractor as required to properly coordinate all doors, frames, hardware and connections, prior to ordering of materials.

137. This contractor shall deliver all materials to the project site in a timely and orderly organized manner. The Owner and EDiS will not receive any materials. Additionally provide 48 hour notice prior to delivery. All deliveries are to be between 7:00 AM and 3:30 PM (allow time for check in of all hardware when scheduling)

138. Provide field assistance to Electrical and Carpentry Contractor as required to facilitate the installation of the materials supplied by your course of work.

139. This contractor to coordinate with the Special Systems contractor and Electrical contractor to ensure that all cut outs, plates, receiver etc. that are required to be built into your doors and frames are fully coordinated. In person attendance at review and coordination meetings for the doors, hardware, special systems, raceway and electrical connections shall be the responsibility of this contractor.

140. As changes are made to the hardware schedule, whether due to issued ASI's, RFI's, architectural changes etc., this contractor shall make updates to the hardware schedule and re-issue so the schedule is always updated and submitted to EDiS.

141. Coordinate electrical requirements with any automatic door operations.

142. Provide harness lengths to reach above accessible ceilings. Coordination of this work and the lengths required is the responsibility of this contractor. Provide any harness adapters and connectors required allow hardware to have a splice free system.

143. This contractor shall provide all magnetic hold open hardware, including extensions as required.

144. Provide a key box system to hold up to 25% over the amount of keys being supplied. Provide (1) additional Locking Key Box's 18" x12" for CSD use.

145. This contractor shall include a $150,000 allowance within their base bid for work to be determined by the CM and CSD. All unused allowance dollars will be returned to the owner.

CONTRACT NO. B-05: METAL & EPDM ROOFING (Excluding Maintenance Building Roof)

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 072100	Thermal Insulation
Section 075300	Elastomeric Membrane Roofing
Section 076200	Sheet Metal Flashing and Trim
Section 077100	Roof Specialties
Section 077123	Manufactured Gutters and Downspouts
Section 077200	Roof Accessories
Section 079100	Preformed Joint Sealants
Section 07900	Joint Sealants
Division 26	Electrical (power, fire alarm, lightning protection)

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide single ply flexible roofing system, including rigid and tapered insulation and all related accessories. Note: the following buildings are included in this scope of work, Field House, Maintenance Building, Concession Buildings 1 & 2, Batting Cages and Baseball/Softball Restrooms. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

2. This contractor shall carefully review the edge of roof details to determine if the roof can be placed before the exterior wall assembly is complete. This contractor shall include all costs associated with returning to the jobsite to complete the roof perimeter after wall assembly is complete.

3. Provide caulking and joint assemblies related to roofing, flashing and roof accessories.

4. This contractor shall provide and install all metal downspouts and Cast iron boots.

5. Roof drains and associated plumbing shall be provided by the Mechanical Contractor. Flashing of the roof drains shall be by the Roofing Contractor. Openings for the roof drains in the roofing materials shall be cut by the Roofing Contractor. Openings in the metal deck shall be cut by others. This contractor shall be responsible to coordinate the roof drain locations as needed by the steel contractor and plumbing contractor so reinforcing of the decking and roof support frames may be installed in accordance with the sequence of work.

6. Metal parapet coping, receiver system and all components required for a complete coping assembly. Caulking and sealing of all copings is the responsibility of this contractor.

7. Provide boot for piping and conduits that penetrate the roofing assembly. Coordinate with other trades.

8. Coordinate the roofing installation and flashing required for line sets, piping, electric and control penetrations. Coordinate with MEP contractors.

9. Roof hatches, smoke vents, smoke hatches, access covers etc. are to be provided by this contractor. Coordination of this work with other trades and the MEP vendors are required by this contract. Rail systems and curbs to be provided by this contract.

10. Walk pads and walk pad layout shop drawings are required by this contract.

11. Metal drip edges, complete including all caulking and sealants.

12. Gravel stops, complete including all caulking and sealants.

13. Roof curbs to be installed by this contractor, provided by the MEP trades as identified in the contract documents. Coordination with the Carpentry contractor on the roof blocking thickness is required by this contractor. Provide detail shop drawings identifying the insulation thickness so blocking can be installed accordingly.

14. This contactor shall coordinate with the carpentry contractor on location of wood blocking, curbing, etc. to facilitate the installation of the tapered insulation, crickets etc.

15. Provide expansion joints that are integral to the roof.

16. Provide all Roof Bar Snow Guards as shown on design drawings.

17. Gutters, downspouts, splash pans, splash blocks. This contractor shall be responsible to coordinate with the plumbing contractor for the connection to the RW system. Provide membrane flashing, metal flashings, sealants, drip edge, gutters , drain covers etc. as related the gutter systems for this course of work.

18. Metal scuppers, over flows, drains etc. as required by the contract documents are this contractors responsibility.

19. Provide a means to lift materials to the roof for materials not stored on the roof at initial time of delivery. All costs shall be the responsibility of the roofing contractor.

20. This contractor shall provide waterproof seals around lightning protection system as required by roof manufacturer requirements. If location of lightning protection conduits are not clearly shown on the roof plan, include within your base bid an additional; cost to seal one penetration for every 1000 sf of roof area.

21. This contractor shall review the schedule for the roofing scope of work and include within the base bid considerations (costs) for cold weather roofing installations. This shall include but is not limited to providing a warming hut/enclosure to keep material warm and allow the roof installation to continue in cold temperatures. All costs related to cold weather roof installation shall be the responsibility of this contractor.

22. The owner may at any time select to have a third party roof inspector review and inspect the roofing installation and finished roof system. This contractor shall work with and allow access to this third party inspector as needed.

23. All trash shall be removed from this contractors work area daily to the dumpsters. No trash may be stored on the roof area.

24. Flashing and sheet metal systems related to the scope of this contract work.

25. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

26. This contractor shall include within the base bid proposal (2) additional roofing inspections of all roofing assembly to facilitate any damage or overuse repairs that may be required. These inspections will be schedule by the CM within the duration of the construction schedule. These inspections do not in any way take the place.

27. This contractor shall include a $20,000 allowance within their base bid for work to be determined by the CM and CSD. All unused allowance dollars will be returned to the owner.

21. Flashing Summary:
    a. Thru wall and cavity flashing below the roof line shall be by the Masonry Contractor.
    b. Thru wall and cavity flashing above the roof line shall be by the Roofing Contractor.

CONTRACT NO. B-06: SOFT FLOORING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 090561	Common Work Results for Flooring Preparation
Section 096500	Resilient Flooring
Section 096813	Tile Carpeting
Section 096816	Sheet Carpeting
Section 096933	Low-Profile Fixed Height Access Flooring

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide flooring in accordance with the contract documents. Note: the following buildings are included in this scope of work, Field House & Maintenance Building. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

2. Prepare subfloor for finished flooring including leveling and patching. Base bid shall include all flashing patching and surface preparation required to perform the work of this Contractor.

3. Provide all Resilient flooring, LVT, Sheet vinyl, rubber tile, rubber treads, rubber base, resilient base, carpeting, carpet tile complete.

4. Provide Low-Profile fixed height access flooring system, complete.

5. Provide all moldings, transitions and edge strips as required.

6. Provide recessed flooring systems at specified areas, to include a shop drawings for approval, recessed floor system, carpet inset and required attic stock materials.

7. Resilient transition and reducer strips at edges of resilient flooring and at edges of carpeting.

8. Cleaning and protection of floors after installation shall be required by the cope of this contract.

9. Seaming diagrams are required to be submitted for approval.

10. Provide mock up's as defined by the contract documents.

11. Attic stock to be delivered to the site, inventoried and then moved to a storge are within the building at the direction of the owner.

12. Provide entrance mat systems complete.

13. Provide cutting and fitting around work of others.

14. This contractor shall protect the adjacent work of other trades while performing the scope of this contract.

15. Include within this contracts base bid an allocation of $10,000 for work to be determined by owner and construction manager. Unused allocation funds to be returned to the owner by means of a credit change order.

CONTRACT NO. B-07: FLUID-APPLIED FLOORING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 079200	Joint Sealants
Section 090561	Common Work Results for Flooring Preparation
Section 096700	Fluid Applied Flooring

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide fluid applied flooring in accordance with the contract documents. Note: the following buildings are included in this scope of work, Field House & Maintenance Building. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

2. Provide fluid-applied flooring and integral base.

3. Provide mock-ups as required by plans and specifications.

4. Provide standard and custom color samples for review and approval.

5. Provide vapor retarding sealer prior to resinous application, as required by specifications or manufacturer's installation instructions.

6. Provide protection of work of others as well as cutting and fitting around work installed by others.

7. Patching and leveling of areas to receive resinous flooring to be included in the base bid of this contract.

8. Provide cleaning, finishes and protection. Protection shall be RamBoard Pro sheets with Ram tape. Provide protection of finished products until acceptance by Construction Manager.

9. Provide crack suppression membrane required for the work of this contract. The submitted shop drawing for the Resinous Flooring areas shall reflect all control joints, expansion joints and crack suppression locations for review and approval.

10. Provide at least a 48-hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

11. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.

12. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

13. Contractor must provide additional crews as needed to maintain the project schedule.

14. Include within this contracts base bid an allowance of $10,000 for work to be determined by owner and construction manager. Unused allowance funds to be returned to the owner.

CONTRACT NO. B-08: PAINTING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 079200	Joint Sealants
Section 099113	Exterior Painting
Section 099123	Interior Painting

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all painting (all walls and ceilings indicated on the finish schedule) include all preparation of surfaces, trims and finish wood locations. Note: the following buildings are included in this scope of work, Field House, Maintenance Building, Concession Buildings 1 & 2 and Baseball/Softball Restrooms. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

2. Provide sealing of all interior joints between dissimilar materials that require sealants before painting.

3. This contractor shall provide "all" interior and exterior painting complete.

4. Paint all exposed block work and concrete work as shown on the room finish schedule and contract documents.

5. Prime, stain or seal, all wood trim and doors as required by the contract documents.

6. Paint exposed piping (sprinkler, plumbing, gas piping, electrical) and ductwork in accordance with the contract documents. Include preparation work for all items specified. Review and coordinate any color requirements specified in the contract documents or as required by code. Pay close attention to MEP documents for specific locations of piping colors.

7. Provide Fire and Smoke Identify markings on all masonry walls that require marking per governing jurisdictions. Coordinate marking walls with painted/stencils with the CM on site.

8. Provide supplementary ventilation as required in enclosed spaces.

9. Paint and caulk all hollow metal frames and doors as shown on the door schedule.

10. Paint metal stairs and railings.

11. Prefinished items WILL NOT be painted by this Contractor.

12. Paint all semi-exposed wood blocking as indicated on the drawing.

13. Include "preparation" of all surfaces and items required to be covered by the scope of this contract.

14. This contractor shall allow a touch up pass from drywall contractor/mason contractor between prime coat and first coat of finish.

15. Protection of adjacent surfaces required by this contractor.

16. Minor patching prior to application of finishes shall be included in the base bid.

17. This contractor shall provide sealing/hardener of concrete floors, including scraping, brushing, removal of markings, grease, foreign materials and thoroughly cleaning all the floors prior to installation of the sealer/hardener materials. Mechanical cleaning of floors as required prior to sealing. Coordination with other finishes will require multiple mobilizations for the sealer/hardener preparation and installation.

18. Installation of rated wall identification to be provided by this contractor. Access, lifts, ladders etc. to be provided by this contractor.

19. Provide painting of all exterior bollards and gates that are not prefinished.

20. Paint gas lines at both the interior and exterior of the building.

21. All lintels shall be painted by this contractor.

22. Paint all railings and handrails that are not prefinished.

23. Provide cleanup of your work areas and storage areas on a daily basis. Removal of spent paint cans and buckets is the responsibility of this contractor.

24. This contractor shall protect all areas, materials and work of others from over-spray from the work of this contract.

25. Provide at least a 48-hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

26. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.

27. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

28. Contractor must provide additional crews as needed to maintain the project schedule.

29. Provide pricing for alternates as described in Section 012300-Alternates.

30. Include within this contracts base bid an allowance of $10,000 for work to be determined by owner and construction manager. Unused allowance funds to be returned to the owner.

CONTRACT NO. B-09: BLEACHERS AND GRANDSTANDS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 061000	Rough Carpentry
Section 079200	Joint Sealers
Section 131250	Bleachers, Grandstands

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide all Bleachers and Grandstands as indicated on the contract documents, including all footings/foundations and concrete.

2. Provide bleacher seating systems, both stationary and removable.

3. Provide Press Box configurations as per the contract documents.

4. Verification of field dimensions is the responsibility of this Contractor. Coordinate with the MEP contractors to insure proper installation related to their work.

5. Anchoring devices, fasteners, inserts and other related items associated with the installation of the above items. Provide all material handling and access equipment required for the scope of your contract.

6. All material handling. Loading, moving, lifting of the materials of this contract shall be the responsibility of this contractor. The CM will not receive or unload your materials.

7. Provide at least a 48-hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

8. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.

9. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

10. Provide pricing for alternates as described in Section 012300-Alternates.

11. Include within this contracts base bid an allowance of $20,000 for work to be determined by owner and construction manager. Unused allowance funds to be returned to the owner by means of a credit change order.

CONTRACT NO. B-10: FIRE PROTECTION

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 22	Plumbing
Division 26	Electrical
Division 32	Site Improvements
Section 312300	Excavation and Backfill for pipelines and Structures
Section 03310	Cast in Place Concrete
Section 210500	Common Work Results for Fire protection
Section 210505	Fire Suppression System Piping, Fittings and Valves
Section 211003	Water Based Fire Suppression System-Sprinklers

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide piping, fittings, couplings, valves and sprinkler heads to provide a complete Fire Protection System. Note: the following buildings are included in this scope of work, Field House & Maintenance Building. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

2. Excavation and backfill related to fire protection work as detailed below is the responsibility of this Contractor. (Geo-Tech reports included for this contractors review)

3. Backfilling is the responsibility of this Contractor. Soil types shall be in accordance with project documents. Backfill materials shall be covered after excavation and protected. If materials become wet and unusable this contractor shall remove the material from site and provide stone dust (#10 stone dust) to backfill all piping trenches and remove unsuitable material off site.

4. Provide As-built drawings in both hard copy and electronic format.

5. Provide concrete equipment pads, curbs and thrust blocks related to the Fire Protection work (sprinkler system) and Fire Pump system.

6. Permits, testing and inspections required for the Fire Protection work are to be provided by this contractor.

7. Providing of sleeve assemblies for work of this contract that penetrates the foundation wall, interior footings or any concrete footings shall be provided to the masonry and concrete contractor for installation. This contractor shall coordinate and assist with the sleeving install. Sleeves are to be sealed per contract documents.

8. Firesafing of all penetration is a requirement of this contract.

9. Design of the system, submissions to the Fire Marshall, review with Fire Marshall and expediting the permit for the Fire Suppression system is a priority of this contract scope.

10. Flow and tamper and sensor switches to be supplied by this Contractor and wired by the Electrical Contractor. It is this Contractors responsibility to provide flow and tamper switches to meet applicable state and local codes as well coordinate with the MEP contract documents.

11. Dry Pipe Fire Protection System Air Compressor, controller and related work. Electric power wiring of compressor and controller to be by the Electrical Contractor.

12. If a water meter is required when the review process and permitting is completed, this contractor shall purchase, pay for, install and coordinate all work with the required authorities.

13. This Contractor to coordinate the need for and compatibility of his system to the emergency generator, supplied by other.

14. Pipe identification and labelling is a requirement of this contract. Valve labels, etc. are required as per the contract documents.

15. Provide fire main from +/- 5 feet outside building including connection in the building. Final connection of your fire line and the line provided by the site contractor shall be the Fire Protection contractors responsibility. Provide a registered plumbing contractor licensed to perform the tie in as part of you base bid.

16. This contractor will flush the UG system with the assistance of the site contractor and provide written documentation to the CM.

17. All cored walls require sleeves and are required to be sealed per contract documents. Any mess from the coring operation shall be immediately cleaned up by this contractor and shall not affect any installed finishes. If this work is not performed efficiently, the work will be performed by the owner and back charged to this contractor.

18. This contractor shall be onsite while walls are being constructed for layout and installation of valve cabinets, concealed, piping, etc.

19. The work of this contract will require out of sequence installations. This should be considered and included in your base bid.

20. This contractor shall provide all access panels required for the work of this contract. They should be lockable, fire rated where required. Panels shall meet the requirements of the contract documents.

21. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

22. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

23. Provide the necessary coordination with trades to avoid interferences with other work and make corrections at no extra charge.

24. Include within this contracts base bid an allowance of $10,000 for work to be determined by owner and construction manager. Unused allowance funds to be returned to the owner.

CONTRACT NO. B-11: PLUMBING, HVAC, AND CONTROLS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 21	Fire Protection (coordination)
Division 22	Plumbing
Division 23	HVAC (all sections)
Division 26	Electrical (coordination)
Division 28	Electronic Safety and Security (coordination of work)
Division 26	Electrical (coordination)
Division 32	Site Improvements
Section 312300	Excavation and Backfill for pipelines and Structures
Section 03310	Cast in Place Concrete

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete system for all plumbing, HVAC, and ATC controls as indicated by the contract documents. Note: the following buildings are included in this scope of work, Field House, Maintenance Building, Concession Buildings 1 & 2 and Baseball/Softball Restrooms. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

2. This contractor shall provide all pipe insulation, insulation coverings, valve insulation, labelling, and identification of for the plumbing, HVAC and control system.

3. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

4. Division 16 of the specifications should be reviewed as it relates to the power wiring and other requirements for HVAC equipment including the coordination of furnishing and installing motor starters as provided in the specifications.

5. Division 26 of the specifications should be reviewed as it relates to the power wiring to trap primers and controls within this contracts scope of work. Coordinate this work with the electrical contractor.

6. Permits, testing, inspections required for the Plumbing and HVAC system work are to be provided by this contractor. This contractor shall pay all permit and inspection fees for the work of their contract.

7. This Contractor shall be responsible to designate an individual within his organization, intimately familiar with this project and assigned on site, to act as the System Start-up Coordinator. This individual must be pre-approved by the Construction Manager. This individual's responsibilities

shall include, but not be limited to, coordinating the start-up of all mechanical equipment, including the coordination between the Electrical Contractor, the Controls Contractor, and all testing, adjusting and balancing work. This individual shall report on a weekly basis, in written form, to the Construction Manager. These reports shall include a summary of current conditions including manufacturers' start-ups, systems' deficiencies noted to date and the remediation of same, coordination issues between trades, system interfacing and forecasting, as necessary to project the completion of each individual system within the building.

8. Excavation and backfill for underground plumbing work as detailed below is the responsibility of this Contractor. Soil types shall be in accordance with the contract documents Refer Section 312300 for requirements on soils. (Geo-Tech reports included for reference and use)

9. Backfilling is the responsibility of this Contractor. Soil types shall be in accordance with project documents. It is the intent to use on site material and not imported fill. The use of this on site material shall conform with the compaction requirements identified in Section 312300. Excavated materials shall be covered immediately and protected from moisture mitigation. If Materials become unusable, this contractor shall own purchasing #10 stone dust to utilize as backfill in all trench or structure locations. Excess unsuitable materials from plumbing excavations shall be removed from the site by this contractor. (includes water meter pit installation) it is not acceptable for any UG piping to be in the stone layer installed by the concrete contractor, all UG piping must be installed in the subbase with adequate soil coverage. Coordinate inverts through foundations with outside piping.

10. The Concrete Contractor shall furnish, install and maintain stone fill under slab. The Sitework Contractor shall leave the building pad site at subgrade to the required tolerance in the contract documents to receive stone fill. The Plumbing, Mechanical and Electrical contractors shall complete their work under the slab on grade and shall be responsible to return the pad to the subgrade elevation left by the Sitework Contractor. The Concrete Contractor shall then adjust the select material to final subgrade, fine grade the slab and place the vapor barrier and stone fill. Note: while working on the building pad area this contractor shall utilize track drive equipment only. No rubber tire equipment will be allowed. Preservation of the building pad shall be the responsibility of this contractor. The onsite testing and inspection agency provided the owner will monitor the excavation, travel and backfilling operation.

11. The plumbing and concrete contractor and CM will meet to review the building pad for turnover to the next trade. If not accepted correction will need to be made to correct concerns and sign off.

12. Equipment bases and housekeeping pads required for the equipment of this scope of work to be provide by this contractor.

13. This contractor shall provide all necessary material handling equipment, cranes, scaffolds, hoisting and rigging equipment and supplies for work associated with this contracts.

14. Providing of sleeve assemblies for work of this contract that penetrates the foundation wall, interior footings or any concrete footings shall be provided to the masonry and concrete contractor for installation. This contractor shall coordinate and assist with the sleeving install. All sleeves must be provided with the appropriate seals, this contract owns sealing the sleeves related to this contracts work.

15. Pipe insulation, insulation coverings, valve insulation, labelling and identification of plumbing lines shall be provided by this contractor.

16. Valve tags, charts, and labelling shall be part of this contractor's responsibility.

17. Provide Mop sinks and Receptors as indicated on the contract documents.

18. Penetrations through wall, floors, etc. including cutting, patching and fire safing.

19. Clean up shall be provided daily, all trash, debris, crates, boxes etc. shall be moved out of the building to the dumpsters each day. No storage of trash will be allowed inside the building or courtyards.

20. Ductwork, flex duct, grilles, diffusers, including detailed layout for the drywall and ceiling contractor shall be provided by this contractor.

21. Louvers and vents related to HVAC operations. Furnish flashings required, steel frames, caulking/sealants and covers if identified. Louvers must be installed so water does not accumulate beyond face of louver, this contractor to maintain these louvers until project is substantially complete. Flashing of louvers at exterior and interior wall assemblies is the responsibility of this contractor. (flashing details must be submitted and approved by the design team).

22. Coordinate damper size, location and type of damper with contract documents, pay special attention to architectural drawings and finish surfaces. Fire dampers are to be included as part of this contractors scope.

23. This contractor shall be on site to coordinate when walls are being installed for penetrations and sleeve installations. If penetrations and sleeves are missed, this will be the responsibility of this contractor to cover associated costs of fixing.

24. Temporary heat and ventilation installation, maintenance and removal. Refer to Division 1, Specification Section 015123 - TEMPORARY HEAT AND VENTILATION, for specific scope. This contractor shall provide and maintain temporary heating equipment for each building.

25. All guarantees and warranties to begin at the substantial completion of the entire project. Maintain equipment prior to substantial completion.

26. Roof curbs, rails, etc. to be provided and loaded to the roof by this contractor. Layout and installation by this contractor, coordinate with the carpentry contractor for blocking and the roofing contractor for flashing and roofing details. Include any doghouses or raceways for service lines, including coordination of flashing.

27. Roof drains, pans, sumps and all related anchoring, support and adjustment elements that are required per the contract documents.

28. This contractor is responsible for providing, setting, bracing, anchoring, and aligning all floor drains, floor basins etc. required by the contract documents. The plumbing contractor shall have a

plumber on site 100% of the time when the concrete contractor is pouring S.O.G. floors or elevated slabs. Drains that are misaligned will be demolished, removed, and replaced by this contractor. Including but not limited to replacing and re-engineering floor reinforcement and paying the concrete contractor to re-pour the slab areas.

29. Gas piping, meter and pressure regulator valve. (proper sizing of the regulators is the responsibility of this contractor.) Include anchoring this equipment to the concrete pad provided by the concrete contractor and anchoring the piping and stand to the exterior wall.

30. Trap priming system, including detailed submittals of the system and then provide as-builts of the location of the rack installations. Photos marked with locations to be provided by this contractor.

31. All utilities will be brought to within +/- 5 feet of the building line by others. The Plumbing Contractor **is responsible** for connecting the utilities from +/- 5 feet outside the building line and completing the system within the building. This contractor shall own the underground line with the assistance of the site contractor, including any chemical treatment required by NCCo, Artesian or any other regulatory agency. Reports shall be submitted to CM.

32. This contractor will flush the underground with the assistance of site contractor and provide documentation to CM.

33. Provide complete water sterilization, testing and reporting. Include within your proposal (4) additional testing mobilization for potential Phase utilization.

34. Install Owner pre-purchased equipment, if identified within the contract documents.

35. Provide access panels to the drywall contractor for framing information and final installation.

36. This contractor shall be on site to coordinate when walls are being installed for penetrations and sleeve installations. If penetrations and sleeves are missed, this will be the responsibility of this contractor to cover associated costs of fixing.

37. This contractor shall provide all required fire dampers, connections and remote controllers for the HVAC system.

38. Provide all VFD's related to HVAC equipment complete for electrical contractor to install.

39. Provide (2) sets of filters for construction use. Include changing out the filters during the construction phase. Additionally include a complete change out of all filters prior to turn over to the owner (these filters shall be separate from the attic stock filters required) Providing a complete filter listing as part of the closeout documents is required.

40. This contractor shall provide the work of Section 230900 Instrumentation and Controls of HVAC system in its entirety. Coordinate with all other trades as required. Provide all instrumentation, controls, coordination of work, testing as required to provide a complete ATC system for this project. This work shall include but not be limited to instrumentation and controls for: Provide all instrumentation, controls, coordination of work, testing as required to provide a complete ATC system for this project.

41. Motorized dampers when not specified as part of the factory packaged equipment supplied to job site for distribution and installation by others.

42. This contract shall supply control valves per contract documents and drawings.

43. Building life safety control and equipment safety control including: operators and controls for motorized smoke dampers, operators and controls for motorized fire dampers, firestats, freeze protection thermostats, shut down safety devices forming part of automatic temperature control.

44. As-built drawings is both hard copy and electronic submission as part of the project closeout.

45. This contractor must provide a silica exposure plan that meets or exceeds the new 2017silica OSHA requirements before any work can commence. At a minimum, it must be implemented in to the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

46. This is not a secure site. All contractors are responsible for concealing, locking and /or removing any materials on a daily basis. EDiS will not be responsible for any lost tools, materials or equipment.

47. Provide the necessary coordination with trades to avoid interferences with other work and make corrections at no extra charge.

48. Provide all permits and inspections required for the work of this contract, pay all fee's.

49. Include within this contracts base bid an allowance of $40,000 for work to be determined by owner and construction manager. Unused allowance funds to be returned to the owner by means of a credit change order.

CONTRACT NO. B-12: ELECTRICAL, LIGHTING, FIRE ALARM SYSTEMS & STADIUM LIGHTING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 22	Plumbing (coordination of work)
Division 21	Fire Protection (coordination of work)
Division 23	HVAC (coordination of work)
Division 26	Electrical
Division 27	Communications
Division 28	Electronic Safety and Security (raceways and coordination)
Section 024100	Demolition Section(Press Box)
Section 284621	Addressable Fire Alarm Systems (complete)

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete electrical system, lighting(including Stadium & Field Lighting), addressable fire alarm system and infrastructure for all Division 21, Division 27 and Division 28 as indicated on the contract documents. Note: the following buildings are included in this scope of work, Field House, Maintenance Building, Concession Buildings 1 & 2, Batting Cages and Baseball/Softball Restrooms. Each building shall be considered a separate mobilization, each building has its own schedule and timeline. (review Alternate section as it applies)

2. Review and coordinate pricing with Alternate Section (multiple alternates relate to this contract)

3. This contract includes the complete foundation systems for all pole lighting, bollard lights and stadium lighting. Including excavation, backfill, concrete, reinforcing, setting all anchor bolts and spoils removal.

4. Provide electrical raceways and power wiring to the buildings. (see alternate section)

5. Lightning protection shall be provided by this contract and coordinated with the Carpentry contractor and Roofing Installer.

6. This contractor to supply power to all areas of work of other trades requiring electrical power.

7. Provide complete infrastructure system for all Division 27 and Division 28 systems. Including all interior and exterior duct banks, raceways and sleeves for special systems.

8. This contractor shall include in the base bid temporary exterior lighting installed and maintained to provide lighting adequate for safety and security purposes for the exterior of the buildings. The lights must be installed to meet the requirements for exterior use and illuminated during low light hours. These lights will be utilized until permanent exterior lighting has been installed and powered.

Supplying the temp power for this lighting is part of this contract. Include providing temporary power and lighting as needed for each building for the entire duration of the project. This include the necessary power outlets required for all contractor use. Power must be available within a reasonable distance at all times.

9. Division 23 of the specifications should be reviewed as it relates to the power wiring and other requirements for HVAC equipment including the coordination of furnishing and installing motor starters and controllers as detailed in the Specifications and on the Drawings.

10. This contractor shall provide all conduits, raceways and boxes required for all special systems, including ATC controls, thermostat and sensor installation and security systems and CCTV. Including any raceways or conduits required by the Div 27 and 28 Special Systems Contractor

11. The HVAC contractor will supply all VFD's to the electrical contractor for installation and powering.

12. Provide all smoke damper, power and remote controllers as required by the contract documents.

13. Excavation and backfill for underground electrical work as required below is the responsibility of this Contractor. Soil types shall be in accordance with project specifications and the Geo-Tech report. Geo-Tech reports included for review and acceptance.

14. Backfilling is the responsibility of this Contractor. Soil types shall be in accordance with project documents. It is the intent to use on site material and not imported fill. The use of this on site material shall conform to the compaction requirements identified in Section 312300. Excavated materials shall be covered immediately and protected from moisture mitigation. If Materials become unusable, this contractor shall own purchasing acceptable off site materials.

15. Provide all excavation, layout, concrete, reinforcing for duct banks, light standards, pole lighting, bollard lighting and Stadium lighting, above ground conduit encasement, equipment bases and any other concrete work specifically related to the electrical work. This shall include services from the roadways and all communication duct banks as required. Include requirements of New Castle County, State and local codes for concrete encasement.

16. All runs in exposed ceilings are to be in conduit.

17. All exterior underground raceways and infrastructure are to be installed by this contractor as required by the contract documents. (Cameras, security, electric etc.)

18. Temporary electric installation, maintenance and removal. Refer to Division 1, Specification Section 015113 - TEMPORARY ELECTRIC, for additional information.

19. Power Centers for miscellaneous tools and equipment used in the construction work shall be provided with a minimum of four 20-amp, 120 volt grounding type outlets. Each outlet shall be provided with ground fault detecting circuit breaker protection. The distance between each receptacle location shall <u>not exceed 50 feet.</u>

20. Construction areas, ramps, runways, corridors, offices, and storage areas shall be lighted to not less than the minimum illumination intensities at five (5) foot candles and any additional OSHA

Temporary lighting and receptacles exposed to wet or damp locations must be weatherproof. Adequate lighting for safe working conditions and the exterior of the structure shall be provided and maintained on a 24 hour per day basis throughout the building. Voltage of each lighting component must be able to accommodate lighting requirements.

21. Rough in and final connection and related work for equipment provided under other contracts (i.e. , HVAC, sprinkler, motorized doors, vertical walls, etc.)

22. Provide all permits and inspections. Pay all fees associated with the permits and inspection.

23. Penetrations through walls, floors, etc. including cutting, patching and fire safing.

24. Testing of all systems, as related to the scope of work for this contract shall be provided. Reporting and verification documentation shall be supplied to CSD and EDiS.

25. This contractor shall provide all supplemental hangers and fasteners for lighting installation to the building structure.

26. All runs in exposed ceilings shall be installed in conduit.

27. Clean up on a daily basis shall be provided by this contractor. All work areas shall be organized and cleaned up to the dumpsters each day.

28. The Concrete Contractor shall furnish, install and maintain stone fill under slab. The Sitework Contractor shall leave the building pad site at subgrade required by the contract documents in preparation to receive stone fill. The Mechanical and Electrical Contractors shall complete their work under the slab on grade and shall be responsible to return the pad to the subgrade elevation left by the Sitework Contractor. The Concrete Contractor shall then adjust the select material to final subgrade, fine grade the slab and place the vapor barrier and stone fill. Note: while working on the building pad area this contractor shall utilize track drive equipment only. No rubber tire equipment will be allowed. Preservation of the building pad shall be the responsibility of this contractor. The onsite testing and inspection agency provided the owner will monitor the excavation, travel and backfilling operation.

29. The electrical, and concrete contractor and CM will meet to review the building pad for turnover to the next trade. If not accepted correction will need to be made to correct concerns and sign off.

30. Note: all raceways are to be installed into the subgrade soils and shall have adequate cover for protection from traffic above. No raceways will be installed in the stone base provided by the concrete contractor.

31. All guarantees and warranties to begin at the substantial completion of the entire project. Maintain equipment prior to substantial completion.

32. Hoisting, rigging and scaffolding required to perform you scope of work shall be provided by this contractor.

33. Provide a complete fire alarm system. Water flow devices are supplied and installed by the

Sprinkler Contractor and wired by this Contractor. Include tie-in to fire sprinkler flow and tamper switch. (fire dampers, smoke detectors, remote testing switches are all part of this contract)

34. Provide all heat tracing and insulation systems as required.

35. Coordinate closely with the work of the Special Systems contractor. This contract (electrical) provides all infrastructure, conduit and raceways required for the Special Systems work. Provide pull strings and boxes for all systems. (voice, data, communication, fire alarm, AV systems, Audio systems, and public address system, clock system etc.) Include all required sleeving, sealing and fire sealing for raceways and conduits through walls, floors, ceilings etc. for this work.

36. This contract shall provide and install wire mesh cable tray if indicated.

37. This contractor shall provide and install 4′ conduits as shown for low voltage distribution.

38. This contractor shall provide and install 2′ conduits into each space above the ceiling for low voltage distribution.

39. Coordinate, review and fully understand and integrate all cable tray, raceways and infrastructure interior or exterior that may be indicated on all contract documents including the T series drawings.

40. Lightning protection with master UL certification. Coordinate with the Carpentry and Roofing contractors.

41. Coordinate and provide a complete grounding system for the entire project. This includes but is not limited to the building columns, interior spaces, exterior wall assemblies, Electrical rooms, IDF and IDF rooms) and provide any testing and reports required.

42. As-built drawings in both hard copy, electronic and final electronic modelling per contract documents.

43. Provide rough-in and final connection and related work for equipment provided under other contracts (i.e. kitchen, HVAC, sprinkler, motorized doors, etc.). Provide power to automatic hardware. Low voltage wiring from the controller to hardware shall be provided by the Doors, Frames and Hardware Contractor. Include power panels and power supplies supplied by other trades.

44. Provide complete infrastructure(raceways, pull strings and boxes) for video surveillance systems.

45. Perform certification testing for all wiring and systems supplied by this contract scope.

46. Provide access doors and frames for all access to Structured Cable components or equipment that require routine or periodic maintenance. Installation of access doors and frames provided by the Metal Stud & Drywall Contractor. (provide (5) 2′x2′ access panels within your base proposal)

47. Provide pricing for alternates as described in Section 012300-Alternates.

48. Include within this contracts base bid an allowance of $35,000 for work to be determined by owner

and construction manager. Unused allowance funds to be returned to the owner.

CONTRACT NO. B-13: SPECIAL SYSTEMS

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 26	Electrical (coordination of work)
Section 078400	Firestopping
Section 079200	Joint Sealants
Section 270500	Telecommunications Pathways and Spaces
Section 271000	Structured Cabling
Section 272000	Network Equipment
Section 274116.63	**Integrated Audio Video Systems Equipment**
Section 280501	Security Pathways and Spaces
Section 281000	Intrusion Detection System
Section 281100	Access Control System
Section 282000	Video Surveillance System

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide a complete Special System package as to include but not limited to, structured cabling, network equipment, AV systems, intrusion detection, access controls and video surveillance. Note: the following buildings are included in this scope of work, Field House, Maintenance Building, Concession Buildings 1 & 2 and Baseball/Softball Restrooms.

2. Telephone and voicemail system including telephone handsets and patch cables from device to jack will be provided by owner.

3. The electrical contractor shall provide and install the fire alarm system, this contractor (Special Systems) will wire fire alarm terminations, and programming of electrified hold open hardware. Low voltage power to electrified hold open hardware provided by this contract. Hold open hardware provided by Carpentry and General Work Contractor.

4. Provide complete intrusion system.

5. Provide all patch cords from communication port (jack) to each device included in this Contractor's scope. Patch cords at source (MDF/IDF) from patch panel to network switch provided by owner.

6. Provide all patch cords for switches.

7. Supply and install any fiber lines need for a complete installation including terminations.

8. Provide all testing of all installations.

9. Provide and install the racks, switches, uninterrupted power supplies etc. for a complete installation.

10. Coordinate all WAP's as per the specifications if supplied by the owner, install if not supplied provide and install under this contract.

11. This contractor shall own all notes as per the T series drawings unless note otherwise in the scope of this contract or the electrical contract.

12. Provide coordination of the work of this contract with the Electrical including final equipment locations. This contractor must coordinate with Electrical Contractor as indicated on the drawings and as specified. The Electrical Contractor shall provide all device boxes, conduit and pull strings to circuits for special systems as indicated and also to provide 120 Volt circuits for all Special Systems. This Contractor will be responsible for providing independent support systems, as indicated in the specifications, for all cable and wiring installed by this Contractor in locations where pathways and raceways are not required by the documents. All runs of cable/low voltage in open areas shall be installed in conduit. If raceways are required for the scope of this contract and they are not identified, this contractor shall provide.

13. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

14. This contractor shall be on site to coordinate when walls are being installed for penetrations and sleeve installations. If penetrations and sleeves are missed, this will be the responsibility of this contractor to cover associated costs of fixing.

15. Provide access doors and frames for all access to Special Systems components or equipment that require routine or periodic maintenance. Installation of access doors and frames provided by the Metal Stud & Drywall Contractor.

16. Provide all network cabling including wiring, devices, and terminations to communication devices identified in plans and referenced on “Communications Outlet Configuration” chart on Drawing E-501. Two (2) terminations should be provided (1) at the source (MDF/IDF patch panel) and (1) at the communication port (jack) in all instances.

17. This contract shall provide communication wiring from the (3) access control panels to the source (MDF/IDF patch panel) including terminations on both ends. Location of access control panels to be coordinated with the documents and the Construction Manager prior to installation.

18. This contractor shall provide communication wiring from the intrusion control headend to the source (MDF/IDF patch panel) including terminations on both ends. This communication wiring shall include (1) dedicated POTS line from the MDF room to the intrusion control dialer. Location of intrusion control headend to be coordinated with the documents and Construction Manager prior to installation.

19. This contractor shall provide communication wiring from the Fire Alarm Control Panel (FACP) to the source (MDF/IDF patch panel) including terminations on both ends. This communication wiring shall include (2) dedicated POTS line from the MDF room to the FACP dialer(s). Location of FACP to be coordinated with the documents and the Construction Manager prior to installation.

20. This contractor shall supply communication wiring from the intercom/public address amplifiers to the source (MDF/IDF patch panel) including terminations on both ends. Location of amplifiers to be coordinated with the documents and the Construction Manager prior to installation. Contractor should assume (3) amplifiers, one located in each MDF/IDF.

21. This contractor shall provide communication wiring from the Building Management System headend to the source (MDF/IDF patch panel). Location of Building Management System headend to be coordinated with the documents, the Mechanical Contractor, and the Construction Manager prior to installation.

22. Provide installation for all wireless access points furnished by owner. Patch cords from device to communication port (jack) provided by this Contractor.

23. Provide penetrations through walls, floors, etc., including cutting, patching and fire safing.

24. Provide all design and coordination necessary to provide complete systems.

25. Provide and coordinate for inspections and testing.

26. Provide fire resistive sealants for the work of this contract.

27. Provide pricing for alternates as described in Section 012300-Alternates.

28. Provide video documentation of training on systems.

29. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

30. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.

31. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be incorporated into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

32. Contractor must provide additional crews as needed to maintain the project schedule.

33. Include within this contracts base bid an allowance of $10,000 for work to be determined by owner and construction manager. Unused allowance funds to be returned to the owner.

CONTRACT NO. B-14 - TESTING, ADJUSTING, AND BALANCING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials, and equipment for:

Technical Specification sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Division 21	Fire Protection
Division 22	Plumbing
Division 23	HVAC
Section 220500	Common Work Results for Plumbing
Section 230900	Instrumentation and Controls
Section 230950	Testing & Balancing of Mechanical Systems

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide water and air testing and balancing.

2. Contractor shall prepare, at a minimum, a preliminary balance report for the New Castle County Final Inspection.

3. This contract includes all Division 0 and Division 1 General Requirements. All commissioning requirements are identified in Division 1 and are a requirement of this contract.

4. Provide pricing for all alternates as described in Section 012300-Alternates.

5. Submissions will be reviewed once, and any resubmittals will be reviewed once. Any other submittals will be billed to the contractor at the Engineers standard rates. Please thoroughly review all submissions prior to forwarding to avoid these costs.

6. Provide complete signed and sealed testing report prior to substantial completion and final inspection as required by New Castle County.

7. This contractor has been allotted 30 days to complete all work and provide final, sealed balancing report by the Construction Manager. This contractor will need to work closely with the Construction Manager and all MEP trades to sequence work so that the completion of the balancing is completed in a manner that does not delay acceptance from New Castle County or owner.

8. Provide confirmation of duct testing completed by Mechanical Contractor.

9. This contractor must provide all lifts or scaffold means to access all elements.

10. Provide at least a 48 hour notice prior to any delivery. All deliveries are to be between 7:00 AM and 3:30 PM.

11. This is not a secure site. All contractors are responsible for concealing, locking and/or removing any materials on a daily basis. CSD and EDiS will not be responsible for any lost tools, materials or equipment.

12. Provide circulating water system test.

CONTRACT NO. B-15: GENERAL LABOR AND CLEAN-UP

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

Technical Specification Sections:

Division 0	Procurement and Contract Requirements
Division 1	General Requirements

This contract also includes, but is not necessarily limited to, all labor, materials, and equipment for the following:

1. This contractor shall provide General labor to the project the direction of the owner and project manager.

2. The contract shall include a total 1500 manhours of general labor to be scheduled by the Construction Manager. The work will start December 2026 and the duration of the coverage could extend to August 2027. This work may be scheduled anytime within the scheduled date range without penalty or additional costs to CSD or the CM. These hours may be utilized for Phase II or Phase I work.

3. The contract shall include a total 1500 manhours of general labor to be scheduled by the Construction Manager. The crew size required will be in the range of (1-2) laborers per day for a period of approximately work 100 days. These work days will be scheduled on an as needed basis. This work may be scheduled anytime within the scheduled date range without penalty or additional costs to CSD or the CM. These hours may be utilized for Phase I or Phase II work.

4. A unit price will be provided by this contractor that will pertain to any hours that may be deducted or added to this contract. Any hours not utilized under this contract will be returned to the owner at the identified unit cost amount per hour.

5. Pay Applications each month will be backed up with daily tickets and a complete accounting of the monthly hours utilized. Field Superintendent or hid designated representative shall sign all daily tickets.

The owner and CM have the right to request replacement of any personnel provided to service this contract, without obligation or explanation.

Scope of Work from Previous Bid Package A (Sitework) – for reference

CONTRACT NO. A-01: SITEWORK, UTILITIES, ATHLETIC SURFACES & LANDSCAPING

A. Work included in this contract consists of, but is not necessarily limited to, all labor, materials and equipment for:

- Technical Specification Sections:

Division 0	Bidding and Contract Requirements
Division 1	General Requirements
Section 024100	Site Demolition
Section 033000	Cast in Place Concrete
Section 116833	Baseball/**Dugout** Equipment
Section 116834	Athletic Field Equipment
Section 220500	Common Work Results for Plumbing
Section 221113	Facility Water Distribution Piping
Section 312000	Earth Moving
Section 312300	Excavation & Backfill for Pipelines and Structure
Section 321216	Asphalt Paving
Section 321313	Concrete Paving
Section 321800	Synthetic Turf Shock Pad
Section 321813	Synthetic Turf Carpet
Section 321814	Subgrade and Stone Aggregate Drainage Layer
Section 321824	Running Track Surfacing
Section 323113	Chain Link Fences and Gates
Section 328000	Site Irrigation
Section 334100	Storm Utility Drainage Piping
Section 329200	Grass Athletic Field Construction
Section 321823.26	Natural Grass Athletic Field Surfacing

This contract also includes, but is not necessarily limited to, all labor, materials and equipment for the following:

1. Provide sitework, stormwater management systems, sanitary drainage, storm drainage, domestic water utilities, concrete and asphalt paving, striping, curbs, walks, signage, exterior concrete steps and ramps, sod and topsoil/seeding and landscaping as indicated on bid documents. This Contractor shall include in the Base Bid the cost of remobilization, cleaning and tack coating the asphalt base course in order to install the asphalt topcoat.

2. This contract to include all sidewalks and exterior concrete work, as indicated on the bid documents, up to structural building slabs.

3. This contract shall remove all existing curbs, sidewalks, pads, paving, asphalt, tennis courts, equipment, structures, etc. as indicated on bid document to be removed.

4. Provide identification and removal of all site utilities, electric, water, including field irrigation, sanitary,

storm and gas as required by the contract documents and in order to perform your contract scope of work. This scope includes removal of all utilities (electric, water, gas, storm water, sewer) to within 5 feet of the existing building and outbuildings.

5. Provide dumpsters as required for the scope of work of your contract. The CM and Owner will not provide any dumpsters for this contract. Waste materials such as asphalt paving, concrete debris, rubble, etc. may not be stored on site for removal later. All debris must be removed from site as it is displaced.

6. This contractor to supply their own source of power and water for the scope of work included in this contract. No power or water will be provided by the Owner or CM

7. This Contractor shall visit the site of the proposed work, fully acquaint and familiarize themselves with the conditions as they exist and the character of the operations to be carried out under the proposed contract and make such investigation as they may see fit so that they shall fully understand the facilities, physical conditions and restrictions affecting the work under the Contract. Claims for additional compensation and/or extensions of time because of Contractor's failure to familiarize themselves with all conditions which might affect the work shall not be allowed.

8. This contractor shall provide all required CCR services for duration of project.

9. Provide all site survey and layout of this contract work from a licensed surveyor. This work includes, but not limited to, accomplishing cuts and fills, locating utilities, layout of roads and walkways, and establishing site boundaries. Benchmarks and control points will be established by the CM.

10. This contractor shall provide and maintain all traffic controls measures related to the New DelDOT Entrance work on Frenchtown Rd., as per DelDOT specifications. This contractor shall provide all required work and materials documentation related to the DelDOT Entrance Permit requirements and inspections.

11. Furnish and install all site signage. This includes all traffic, pedestrian and School related signage not mounted on buildings, including fire lane curbing paint and/or striping and signage as required by contract documents and applicable codes.

12. Before ANY excavation work is to commence, the Contractor/Excavator shall contact the utility companies or utility owners and advise them of the proposed work and ask them to mark the location of the underground utility installations. This notification shall be done within established or customary local response times. If the work is on private property and the utility company will not mark out the utilities, the contractor will hire a private locating service to mark the utilities. The report generated from the sub-surface private locating firm shall be provided to EDiS as a project submission. Once the utilities are located and marked, the Contractor/Excavator will excavate by hand or use a vacuum truck to expose the utilities and record the exact location and elevation of the utilities. The Contractor/Excavator must submit the Excavation Permit to EDiS Company verifying their assurance of communication with the utility companies or utility owners. The Contractor/Excavator must follow State, Local, and Federal Guidelines prior to proceeding with excavations. The Contractor/Excavator will have these marks restored as long as there is work to perform. Once the Contractor has installed new utilities, they will provide to EDiS Company an as-built drawing, within 7 days, showing the exact location and elevation of the utilities. The installing Contractor will be responsible for locating and

marking these utilities for other contractors that may have work in the same area.

13. Provide all required water service piping and final connections(wet taps if applicable) as indicated.

14. This contractor shall coordinate with the sprinkler and plumbing contractor to flush all mains into buildings.

15. Provide all sanitary and storm sewer work, including relocation of existing lines, manholes and structures, stormwater management systems as necessary. Include all required inspections as required by local code authorities. Include all permits necessary for your work. This contractor to include a full camera/video for all sanitary and storm lines/structures for submission and review by the CM, design team and governing authorities. Contractor shall provide imported structural fill material for all new utility trench backfill. Material shall conform to the requirements identified within the contract documents. AASHTO #10 screenings are also an approved material for utility trench backfilling. This contractor shall maintain and cleanout before turnover to owner all drainage systems.

16. Provide fire supply piping including fire hydrants and loop. Color code fire hydrants as required by the local jurisdiction based upon water pressure. Provide fire lane striping including painting of adjacent curbs as required by local jurisdiction having authority.

17. Provide site amenities and steel pipe bollards and decorative bollards, bike racks, flagpoles, manual and automatic gates (including associated gate hardware, **coordinate with security and access controls.**) Include excavation and concrete to support these amenities as shown in the project documents and required by manufacturer's instructions. This contractor shall provide "all" bollards at the field house and all outbuildings as well as site bollards.

18. Provide all flag poles, flag poles foundations, anchor bolts, excavation and grading associated with their installation.

19. Provide all permanent fencing (chain link and ornamental) including gates and gate hardware. Provide manual swing arm gates and automatic gates and sliders as indicated in documents.

20. Contractor shall familiarize their teams with the location/proximity of the existing athletic fields and buildings. Include protective measures to ensure the existing athletic fields and buildings are not impacted or damaged during the course of your work on site.

21. **Furnish and install and maintain a DNREC compliant concrete washout station for the work or your contract and all other subcontractors until the completion of the project.** You are responsible for the maintenance and DNREC upkeep of the washout station whether you are actively working on site or not. Remove this item at conclusion of project and provide the required final site work, seeding, sodding, curbs, etc. indicated on finished drawings. Provide signage to identify concrete wash out areas.

22. Furnish, install, maintain and remove sediment control system including sediment control plan. Maintain sediment control until substantial completion is established by DNREC. Repairs, revisions and adjustments required by the weekly CCR reports is the responsibility of this contractor.

23. This Contractor shall, in cooperation with utility companies, remove or cause to be removed all light

and power poles if required to be removed, at such time as the services utilizing said poles are no longer required. Remove existing utilities and structures (water, storm, sewer, gas, electric etc.) from their source to 5' outside of existing building footprint. Coordinate shut-off with utility companies, cut and cap as required by governing agency. Patch existing manholes where existing utilities are removed, in accordance with DelDOT and NCCo regulations.

24. If required, this Contractor shall relocate power or light poles, fire hydrants, traffic signs or signals and similar utility and public service items in use and shall cooperate with all governmental agencies having jurisdiction over such items so as not to interfere with the services of such governmental agencies.

25. Street openings made for the shutting off or tapping of utility lines or for any other purpose shall be backfilled, tamped and the surfaces restored in accordance with the requirement of applicable local codes or to match existing; whichever is greater.

26. Utility equipment belonging to the utility companies, if to be retained by these companies, will be removed from the site by the company owning the equipment upon notification by this Contractor.

27. Any damage to public property, private property, or to utilities due to demolition operations, or the Contractor's neglect, shall be corrected by this Contractor, in a manner approved by the Owner and the parties whose property has been damaged, all at no additional cost to the Owner.

28. All clearing, grubbing and removal of vegetation, trees, roots and stumps whether indicated on documents or not. A site visit to review existing areas within Phase 2 and Phase 2A prior to bidding is required.

29. Topsoil stripping and stockpiling on site. Respread topsoil from the established topsoil stockpiles and fertilize as specified in the civil drawings. The topsoil must be **triple screened** to remove all inorganic materials in excess of ¾ inches or import material certified as triple screened. Prior to seeding, this contractor is responsible to have the topsoil tested and to supply and install amenities (fertilizer, lime, etc.) as required by the test report. Provide temporary and permanent stabilization grass seeding at all areas following the completion of construction activities. This contractor is responsible for all weeding, watering, fertilization, and grass cutting to ensure 100% grass growth in the entirety of these areas until permanent certificate of occupancy is approved, including meeting all DNREC approvals and the areas are accepted by the Owner.

30. Contractors should carefully review the soil borings as they relate to the extent of rubble to be removed and other manmade obstructions. Saw cutting and removal of sidewalks, curbs, etc. in the performance of work is this Contractor's responsibility.

31. Provide, maintain, and remove stabilized construction entrances (SCE) as indicated on bid documents. Furnish and install wash station, labor to wash tires, clean and drain the area as required before vehicles leave the site daily. Clean tires and tracks of all vehicles before leaving the construction site. Wash station will be utilized by other contractors and will be removed only when directed by EDiS. Furnish and install Non-freeze Hose Bib, water line, valve box, drainpipe etc. as required to provide a fully functioning tire wash station for the projects use. Provide (2) 50 heavy duty hoses and one brass nozzle for CM's use.

32. Protect all existing trees to remain within the limits of construction. Includes all SAP requirements. (sensitive area protection)

33. All tree removal, stump removal and grubbing removal as identified on contract documents is the responsibility of this contractor, complete.

34. Provide a temporary water means for other trades to utilize. Include all costs associated with metering from local utilities as well as valves and hoses for contractors to utilize. The Construction Manager will not provide this service.

35. This contractor shall provide, maintain, refurbish and remove **3000** linear feet of stoned roadway from the Stabilized Construction Entrances, 25'-0" wide. Road shall consist of fabric, 10" of #3 stone for the length of the road and the means to compact it. The location will be determined by construction manager. Include removal of temporary stone road from site upon request from construction manager. This work is in addition to the construction entrance identified on the contract documents.

36. Provide in base bid, the cost to provide, maintain and remove upon construction manager direction, a total **of 3 temporary crane pads**: each a **35'x35'** stoned area. Two pads at New Fieldhouse and one pad at New Maintenance building, exact locations to be coordinated with CM. Pads shall consist of fabric, 10" of #3 stone for the area of the pad, and the means to compact it. Include removal of temporary stone pads from site upon request from construction manager.

37. Provide in base bid, the cost to provide, maintain and remove upon construction manager direction, a temporary stone parking area that is 150' X 150'. Area shall consist of fabric, 10" of Crushed concrete or crush and run stone for the area of the pad, and the means to compact it. Include removal of temporary stone pads from site upon request from construction manager.

38. Rough grading for area defined on site drawings for building, lawn areas, bituminous roads, parking and walkways. Preparation of subgrade for building slabs, walks, pavements, grass fields, baseball and softball fields Etc.

39. Sitework contractor is to provide rough grading for area defined on site drawings for building, lawn areas, bituminous roads, parking and walkways. Preparation of subgrade for slabs, walks, and pavements. The Sitework Contractor to extend the bulk excavation 10' outside building plan in order to facilitate foundation construction and maintain safety requirements. Written acceptance of the building pad condition will be provided by the concrete contractor before foundation work proceeds. The Concrete Contractor will be responsible for laying out all concrete work as shown on the structural and architectural drawings. Once the Concrete Contractor has accepted this work it will be the responsibility of the Concrete Contractor to maintain and dewater the building pad and all excavations until the concrete work is complete and backfilled. The Concrete Contractor and Sitework Contractor are to coordinate this procedure so that there are no additional costs to the Owner for additional excavation or concrete. Spoils left after backfilling of foundations is complete are to be left outside the building perimeter by the concrete contractor and neatly piled in a single location for each building area. The site contractor will then remove the spoils off site unless directed by the CM to spread on site (Include costs to move off site)

40. Backfilling as detailed below is the responsibility of this Contractor. Soil types shall be in accordance with Del Dot standard specifications.

41. The use of this on site material shall conform with the compaction requirements as specified and identified in the Geo-Tech reports, civil drawings and specifications. The intent is to utilize the onsite materials to establish grades and construct the building pad. It is the sole responsibility of this contractor to evaluate the soil information provided and determine if the soil will be acceptable to meet the structural fill requirements identified, when excavated and placed at the time of year indicated in the bidders schedule. If sufficient amounts of suitable fill material are not found within the limits of disturbance (LOD) the contractor shall be responsible to purchase, deliver and install off site fill materials to allow the building pad, Stadium, parking areas, driveways and site grades to be achieved. It is this contractor's responsibility to restore all areas disturbed by harvesting operations completely. It is the responsibility of this contractor to understand fully the existing soil conditions and how they can be utilized to achieve grades within the project schedule timeline . The contractor may request permission test/review the soils in the field prior to bidding. The Geotech report for onsite soil stockpile from Leach School Site is attached for reference.

42. This contractor shall provide off site fill that meet the project specifications, to establish the grades for the Fieldhouse Bldg. Pad and Maintenance Bldg. Pad.

43. All structural soils that are to be stock pile on site shall be covered as the stockpile is being created and them kept covered as needed to insure the integrity of the materials (keep it dry) by this contractor.

44. Provide all concrete curbs, sidewalks, pads and ramps, including bituminous joint filler. All backfilling at concrete curbs, sidewalks, pads and ramps shall be flush with top of concrete. Include all stone bedding as detailed on the contract documents. Curb excavations shall be bedded with 4" of crush and run stone material prior to installation of the concrete curbs.

45. Provide curb cuts, depressions and filter strips as designated.

46. Provide all unloading and material handling for the work of this contract.

47. Provide all concrete bumper blocks at parking areas.

48. Provide all bituminous paving to include but not limited to drive lanes, parking lots, bus parking, paved islands, pathways etc.

49. This contractor to include in the base bid the cost associated with installing the base course on the drive lanes and parking areas prior to the scheduled installation of the top coat. Include remobilization, cleaning, tacking etc. as necessary to prepare utilized base course for final paving top coat.

50. Provide all concrete paving as indicated on the contract documents.

51. Millings may not be used as a substitute for stone base.

52. This Contractor will provide all pavements markings, fire lane signs, and traffic signs.

53. The certified construction reviewer (CCR) will be provided by this contractor. Review controls on a weekly basis and complete repairs to stay complaint with DNREC & CCR requirements.

54. Furnish, install and remove approximately **6000** linear feet of temporary construction fence required. The fence shall consist of new 6' high #9 gauge galvanized chain link fence with top rail and bottom tension wire. Provide (3) 12' wide gates. The posts shall be installed in the ground. This fence is required to be in-place for the duration of the project, as directed by CM. Maintain this work until Substantial Completion of this project. At the end of the project remove the fence, patch and repair the finished surfaces to a like-new condition. Provide black wind screen material for all areas of the temporary fencing.

55. Proof rolling of limit of excavation prior to fill operations, coordinate all work with the CM and the Geo-Tech engineer assigned.

56. All utilities shall be brought to within +/- 5 feet of the building line by this Contractor(Domestic/Fire Water, Sanitary, Storm, etc.). The connection and all utilities from +/- 5 feet and into the building shall be by others. This does not include the storm water line; this contractor shall tie in the storm water to the building.

57. Temporary maintenance standby labor such as for temporary water, temporary power, temporary light and the like where required due to this Contractor's work is to be included within the Contract Price.

58. Provide OSHA compliant perimeter protection of all excavated areas until suitably backfilled. Signage, fencing and posts is required; no other method will be acceptable. "Caution" tape is not acceptable protection.

59. ASPHALT CEMENT COST ADJUSTMENT
    a. Payments to the Contractor shall be adjusted to reflect increase or decreases in the Delaware Posted Asphalt Cement Price when compared to the Project Asphalt Cement Base Price, as defined in these Special Provisions.
    b. The Delaware Posted Asphalt Cement Price will be issued monthly by the Department and will be the industry price for Asphalt Cement, F.O.B. Philadelphia, Pennsylvania.
    c. All deviations of the Delaware Posted Asphalt Cement Price from the Project Asphalt Cement Base Price are eligible for cost adjustment. No minimum increases or decreases or corresponding percentages are required to qualify for cost adjustment.
    d. Actual quantity of asphalt cement qualifying for any Asphalt Cement Cost Adjustment will be computed on the basis of weight tickets and asphalt percentage from the approved job mix formula.
    e. For Recycled Hot-Mix the asphalt percentage eligible for cost adjustment shall be only the new asphalt cement added to the mix.
    f. The Asphalt cement cost adjustment will be calculated on grade PG 64-22 asphalt regardless of the actual grade of asphalt used. The Project Asphalt Cement Base Price for the project will be based on the August 1st price posted on DelDOT's website.
    g. If the Contractor exceeds the authorized allotted completion time, the price of asphalt cement on the last authorized allotted work day, shall be the prices used for cost adjustment. However, if the industry posted price for asphalt cement goes down, the asphalt cement cost shall be adjusted downward accordingly.

60. Provide street cleaning of mud, etc. on a daily basis when actively performing work on the site.

61. Include all costs for temporary barricades, arrows, pedestrian protection, flagmen, etc. required to complete the work.

62. Base bid shall include all standard dewatering measures, utilizing trenches, crocks, stone and portable pumping measures. This contractor to provide these measures as required to perform their work. Well pointing if necessary, will be handled as a negotiated cost by the Owner.

63. Furnish and install (7) dewatering crocks within the building pad or stadium areas as directed by construction manager. Dewatering crocks shall consist of 2' diameter, 3' long perforated pipe with a #3 stone base. This contractor shall remove and fill the dewatering crocks when directed by construction manager.

64. This Contractor shall provide and maintain all temporary access roads as detailed in Contract Documents, until completion of project.

65. Provide all plant material and all associated work including, but not limited to, staking, watering, weeding, fertilizing, etc.

66. Planting soil mix in beds and topsoil to be provided by the Sitework Contractor. Provide all additional soil mix required to set plant materials and final grading. (triple screened topsoil is required in all areas)

67. Provide filter fabric, weed, check and mulch at all planting areas.

68. Provide specified warranties, general two year and all extended warranties.

69. Provide all dewatering of excavations until final acceptance.

70. Provide temporary shoring to support and maintain adjacencies and excavations per OSHA standards.

71. This contractor must provide a silica exposure plan that meets or exceeds the new 2017 silica OSHA requirements before any work can commence. At a minimum, it must be implemented into the company safety plan, include all monitoring, testing, limits exposure, provide respiratory plan and/or equipment modifications such as adding water to equipment during exposed work and keep records of exposure.

72. Provide As-Built Drawings both in electronic format and a hard copy.

73. Note: The existing school and all associated activities will be ongoing as your work is performed, caution shall be utilized by your crews at all times. The main entrance to the new school will not be used for access. All construction personal, equipment and material deliveries shall utilize the Temporary Construction Entrance on Frenchtown Rd. Extreme caution must be utilized whenever accessing active school properties(by permission of CM), including limited access between the hours of 7:00 AM and 3:15 PM.

74. Provide pricing for alternates as described in Section 012300-Alternates.

75. Provide perimeter stormwater drains at all buildings (including within 5' of the building perimeter). This contractor to provide the final connections. Provide downspout adaptors and cast iron boots,

coordinate with roofer for the correct downspout size. Provide splash block where called for.

Stadium Field, Running Track, Courtyard Turf Areas, Baseball and Softball Fields, Bleachers Areas.

76. This contractor shall provide all work associated with the stadium turf field, running track and athletic field equipment. This shall include but not be limited too, all subbase construction, concrete curbs, drainage systems, concrete paving, fencing , gates, sidewalks, shock pad, turf, running track base and surface, stripping and logos, athletic equipment and associated work to provide completed system.

77. Provide Track, Football, Baseball, Softball, Field Hockey and Soccer field equipment and athletic field equipment as per documents.

78. Provide all electronic scoreboards, including foundations and anchoring, as per bid documents.

79. Bleachers and stadium bleacher concrete foundations are NOT included in Bid Pack A.

80. This contractor shall provide all work associated with Section 321823.26 Natural Grass Athletic Field Surfacing.

81. Provide all practice fields, baseball and softball fields, shot put area, fencing, gates, back stops and all other athletic accessories identified in the contract documents.

82. This contract owns all chain link fencing and ornamental fencing, gates and hardware.

83. This contractor shall coordinate the shop drawings and submittals for the turf field and track. This includes coordinating the specific sports lining for each area with the CM and owner for final review.

84. Provide Synthetic turf, including subbase preparation, subbase completed, shock pad, stone aggregate drainage layer, concrete curbs, and clean up after installation area as directed by the contract documents. This applies to the (include all required soil stabilization at subbase)

85. The Turf Shock Pad shall be delivered and kept sealed until use/installation.

86. Provide all unloading and material handling for this work.

87. This contractor shall provide all Bio-Retention areas as indicated on the contract documents complete. Including all planting's, Bio-Media materials, etc. and maintenance of planting as identified. This contractor shall provide the required As-Built for submission to DNREC within 1 week of completion of this work. All ponds shall be sodded where grass areas are indicated.

88. The existing sediment pond shall be filled as per DNREC's approval, include structural fill drainage material compacted to 95% of ASTM D698 to complete this area. Provide topsoil and sod at completion.

89. Provide All sidewalks and paved areas indicated on the contract documents are part of this contractor's scope.

90. This contractor shall provide all manual swing arm gates complete as detailed and located on the contract documents.

91. Temporary power and water will NOT be supplied by CM. Temporary power and water will be the responsibility of this contractor.

92. Provide a $300,000 allowance for soil remediation to be allocated by the Owner/Construction Manager. All work to be tracked on a T&M Basis. All unused allowance will be returned to the owner.

93. Provide a $100,000 allowance for misc. work directed by CM and Owner. All work to be tracked on a T&M Basis. All unused allowance will be returned to the owner.

94. Provide a $100,000 allowance for relocation of existing utilities as directed by CM and Owner. All work to be tracked on a T&M Basis. All unused allowance will be returned to the owner.

95. Provide a $100,000 allowance for temporary stormwater management as directed by CM and Owner. All work to be tracked on a T&M Basis. All unused allowance will be returned to the owner.

96. Provide a $50,000 allowance for snow removal as directed by CM and Owner. All work to be tracked on a T&M Basis. All unused allowance will be returned to the owner.

97. Excess topsoil removal from site will be the responsibility of this contractor. Any excess topsoil shall be removed from site as part of this contract. (Addendum #5)

98. The site is intended to be a balanced site, including the approximately 15,000 cubic yard stockpile. The design team will make adjustments to grades, where possible, to accommodate any excess fill material. This contractor shall be responsible to move and place excess fill materials within the site, to and from a designated stockpile. In the event excess fill material remains after these adjustments, the excess fill material will be removed from the site based on unit cost for unsuitable soil removal and disposal. (Addendum #5)

END OF SECTION

SECTION 012100 - ALLOWANCES

1. RELATED DOCUMENTS

   A. The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary and other Conditions, if any) and Division 1 as appropriate, apply to the Work specified in this Section.

   B. Refer to provisions in AIA Document A232 – 2019 EDITION, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, CONSTRUCTION MANAGER AS ADVISOR EDITION, for requirements in addition to those specified in Division 1.

   C. Refer to Scope Information Sheets for all contracts bound in the Project Manual under Section 011100 - SUMMARY OF WORK. The Scope Information Sheets describe generally the work included in each contract, but the work is not necessarily limited to that described.

   D. For work being constructed under separate prime contracts, provisions of this Section apply to each contract being bid.

   E. Include in the Contract Sum all lump sum and unit cost allowances stated in the Contract Documents.

   F. Designate in the construction progress schedule the delivery dates for products specified under each allowance.

   G. Designate in the Schedule of Values the quantities of materials required under each unit cost allowance.

2. ALLOWANCES FOR PRODUCTS

   A. The amount of each allowance includes:

      1. The cost of the product or labor to the Contractor or Subcontractor, less any applicable trade discounts.

      2. Delivery to the site.

      3. Labor required under the allowance, only when labor in specified to be included in the allowance. If labor is not specified to be included in the allowance, it shall be included in the Contractor's bid and in the resulting Contract Sum.

      4. Applicable taxes.

      5. Profit and overhead.

   B. In addition to the amount of each allowance, include in the Contract Sum the Contractor's costs

for:

1. Handling at the site; including unloading, uncrating and storage.

2. Protection from the elements and from damage.

3. Labor for installation and finishing, except where labor is specified to be a part of the allowance.

4. Other expenses required to complete the installation.

5. Contractor's and Subcontractor's overhead and profit.

C. Refer to Scope Information Sheets under Section 011100 - SUMMARY OF WORK for the amount of each lump sum allowance and for work specified in the specification sections listed below.

3. ADJUSTMENT OF COSTS

A. Should the net cost be more or less than the specified amount of the allowance, the Contract Sum will be adjusted accordingly by Change Order.

1. For products and labor specified under a unit cost allowance, the unit cost shall apply to the quantities actually used with a nominal allowance for waste, as determined by receipted invoices, or by field measurement.

B. At Contract closeout, reflect all approved changes in Contract amounts in the final statement of accounting.

END OF SECTION

SECTION 012200 - UNIT PRICES

1. GENERAL PROVISIONS

   A. The general provision of the Contract, including the Conditions of the Contract (General, Supplementary and other conditions, if any) and Division 1 as appropriate, apply to the Work specified in this Section.

   B. Refer to provisions in AIA Document A232 – 2019 EDITION, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, CONSTRUCTION MANAGER AS ADVISOR EDITION, for requirements in addition to those specified in Division 1.

   C. For work being constructed under separate prime contract, provisions of this Section apply to each contract being bid.

2. BASE BID

   A. The Base Bid shall consist of all work shown or specified in the Contract Documents, exclusive of any Additive Unit Prices specified herein.

   B. The Base Bid shall include all work in any Subtractive Unit Prices specified herein.

3. UNIT PRICES

   A. State in the Bid Form the amount to be added to (or subtracted from) the Base Bid per unit of measurement for each Unit Price specified. State this amount to include all overhead and profit. No surcharge in addition to the Unit Price listed will be permitted.

   B. See Section 002113, INSTRUCTIONS TO BIDDERS for related information.

   C. For description of Unit Prices requested, refer to the specification. The method of stating the Unit Prices is described in the Bid Form.

   D. Where both add and deduct unit prices are requested, there shall not be more that a 10% variation between the two.

4. APPLICATION OF UNIT PRICES

   A. Unit prices stated in the Bid Form will apply from the time the Bid is submitted until Contract completion.

5. MEASUREMENT OF QUANTITIES

   A. Quantities shall be determined by field measurement by contractor personnel and as verified by the Construction Manager.

B. At the Contractor's option, and at his expense, measurement may be made by a registered surveyor.

6. LIST AND DESCRIPTION OF UNIT PRICES

END OF SECTION

SECTION 012300 - ALTERNATES

1. GENERAL PROVISIONS

   A. The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary and other conditions, if any) and Division 1 as appropriate, apply to the Work specified in this Section.

   B. Refer to provisions in AIA Document A232 – 2019 Edition, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, CONSTRUCTION MANAGER AS ADVISOR EDITION, for requirements in addition to those specified in Division 1.

   C. For work being constructed under separate prime contracts, provisions of this Section apply to each contract being bid.

2. BASE BID

   A. The Base Bid shall consist of all Work shown or specified in the Contract Documents, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids (if any are required to be stated in the bid).

   B. The Base Bid shall include all work in any Subtractive Alternates specified herein.

3. ALTERNATES

   A. State in the Bid Form, where applicable, the amount to be added to or deducted from the amount of the Base Bid for each Alternate specified.

   B. See Section 002113 - INSTRUCTIONS TO BIDDERS for related information.

   C. The description of Alternates contained herein is in summary form. Detailed requirements for materials and execution shall be as specified in other sections and as shown on drawings.

Alternate No. 1: Delete all scope associated with Aux. Fields New Restrooms and Concession Stand

Add/Deduct _____($_____)

Alternate No. 2: Delete all scope associated with Tennis/Pickleball Courts New Restrooms and Concession Stand

Add/Deduct _____($_____)

Alternate No. 3: Delete all scope associated with New Single Use Restrooms at Baseball/Softball Fields

Add/Deduct _____($_____)

Alternate No. 4: Delete all scope associated with New Maintenance Building

Add/Deduct _____($_____)

Alternate No. 5: Delete all scope associated with Moveable Partitions in New Fieldhouse including Structural Steel, Moveable Partitions, Electric, ACT Ceilings and GWB Systems/CFMF Framing

Add/Deduct _____($_____)

Alternate No. 6: Delete all ceramic tile in Fieldhouse in lieu of paint

Add/Deduct _____($_____)

Alternate No. 7: Delete Resinous Flooring in lieu of Sealed Concrete

Add/Deduct _____($_____)

Alternate No. 8: Delete Roof Structure, Roof and Lighting on Batting Cages, Concrete slab to remain in scope.

Add/Deduct _____($_____)

END OF SECTION

SECTION 012500
SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Procedural requirements for proposed substitutions.

1.02 RELATED REQUIREMENTS

A. Section 002113 - Instructions to Bidders: Restrictions on timing of substitution requests.

B. Section 012200 - Unit Prices, for additional unit price requirements.

C. Section 012300 - Alternates, for product alternatives affecting this section.

D. Section 013300 - Submittal Procedures: Submittal procedures, coordination.

E. Section 016000 - Product Requirements: Fundamental product requirements, product options, delivery, storage, and handling.

1.03 DEFINITIONS

A. Substitutions: Changes from Contract Documents requirements proposed by Contractor Manager to materials, products, assemblies, and equipment.
   1. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor Manager's control.
      a. Unavailability.
      b. Regulatory changes.
   2. Substitutions for Convenience: Proposed due to possibility of offering substantial advantage to the Project.
      a. Substitution requests offering advantages solely to the Contractor Manager will not be considered.

1.04 REFERENCE STANDARDS

A. CSI/CSC Form 1.5C - Substitution Request (During the Bidding/Negotiating Stage); Current Edition.

B. CSI/CSC Form 13.1A - Substitution Request (After the Bidding/Negotiating Phase); Current Edition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

A. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
   1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
   2. Agrees to provide the same warranty for the substitution as for the specified product.
   3. Agrees to provide same or equivalent maintenance service and source of replacement parts, as applicable.
   4. Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Owner.
   5. Waives claims for additional costs or time extension that may subsequently become apparent.
   6. Agrees to reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.

B. A Substitution Request for specified installer constitutes a representation that the submitter:
   1. Has acted in good faith to obtain services of specified installer, but was unable to come to commercial, or other terms.

C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
   1. Note explicitly any non-compliant characteristics.

D. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
   1. No specific form is required. Contractor Manager's Substitution Request documentation must include the following:
      a. Project Information:
         1) Official project name and number, and any additional required identifiers established in Contract Documents.
         2) Owner's, Architect's, and Contractor Manager's names.
      b. Substitution Request Information:
         1) Discrete and consecutive Substitution Request number, and descriptive subject/title.
         2) Indication of whether the substitution is for cause or convenience.
         3) Issue date.
         4) Reference to particular Contract Document(s) specification section number, title, and article/paragraph(s).
         5) Description of Substitution.
         6) Reason why the specified item cannot be provided.
         7) Differences between proposed substitution and specified item.
         8) Description of how proposed substitution affects other parts of work.
      c. Attached Comparative Data: Provide point-by-point, side-by-side comparison addressing essential attributes specified, as appropriate and relevant for the item:
         1) Physical characteristics.
         2) In-service performance.
         3) Expected durability.
         4) Visual effect.
         5) Sustainable design features.
         6) Warranties.
         7) Other salient features and requirements.
         8) Include, as appropriate or requested, the following types of documentation:
            (a) Product Data:
            (b) Samples.
            (c) Certificates, test, reports or similar qualification data.
            (d) Drawings, when required to show impact on adjacent construction elements.
      d. Impact of Substitution:
         1) Savings to Owner for accepting substitution.
         2) Change to Contract Time due to accepting substitution.

E. Limit each request to a single proposed substitution item.
   1. Submit an electronic document, combining the request form with supporting data into single document.

3.02 SUBSTITUTION PROCEDURES DURING PROCUREMENT

A. Submittal Time Restrictions:
   1. Section 002600 - Procurement Substitution Procedures specifies time restrictions and the documents required for submitting substitution requests during the bidding period.

3.03 SUBSTITUTION PROCEDURES DURING CONSTRUCTION

A. Submit request for Substitution for Cause immediately upon discovery of need for substitution, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.

B. Substitutions will not be considered under one or more of the following circumstances:
   1. Substitution for Convenience.
   2. When they are indicated or implied on shop drawing or product data submittals, without having received prior approval.
   3. Without a separate written request.
   4. When acceptance will require revisions to Contract Documents.

3.04 RESOLUTION

A. Architect may request additional information and documentation prior to rendering a decision. Provide this data in an expeditious manner.

B. Architect will notify Contractor Manager in writing of decision to accept or reject request.
   1. Architect's decision following review of proposed substitution will be noted on the submitted form.

3.05 ACCEPTANCE

A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.

3.06 CLOSEOUT ACTIVITIES

A. See Section 017700 - Contract Closeout, for closeout submittals.

END OF SECTION 012500

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SECTION 012600 - CHANGE ORDER PROCEDURES

1. GENERAL

   A. The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary and other Conditions, if any) and Division 1 as appropriate, apply to the Work specified in this Section.

   B. Refer to provisions in AIA Document A232 – 2019 EDITION, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, CONSTRUCTION MANAGER AS ADVISOR EDITION, for requirements in addition to those specified in Division 1.

   C. The Construction Manager is responsible for processing all change orders. Each request will be assigned a change order request (COR) number. The Change Order Request & Execution Form will be initiated via the web-based project management system (Building Blok) used by the CM.

   D. It is to be clearly understood that no extra work shall commence without an approved written and executed change order from the Owner.

2. INITIATING A CHANGE ORDER

   A. Specific changes initiated by the Owner, Architect, Construction Manager (CM) or Contractor will be processed as follows:

      1. The Owner will authorize the Architect to prepare sufficient documents to establish an accurate price. These documents to be forwarded to the Construction Manager and Owner "for pricing only, not authorized for construction." The Construction Manager will develop the estimate (within 2 weeks) showing a breakdown by trades with all trade contractor quotes. The Owner will approve or reject the change request within two (2) weeks. If the Owner elects to proceed with the change, the Construction Manager will prepare formal change orders to the various trade contractors involved in the change and reference in all formal change orders the original change order request number.

      2. Field Change: Contractor shall immediately notify the Construction Manager of a change due to field conditions or site conditions. If documents cannot be prepared for pricing due to schedule constraints, the Construction Manager will make every effort in estimating the field change. If the Owner and Construction Manager agree that certain field changes should be handled on a time and material basis, the Construction Manager will closely monitor the Contractor's labor and material affecting this change. At the completion of the work a formal change order will be issued.

      3. Contractor Change: If a Contractor initiates a change order for work not included in the Contract, the Construction Manager and Architect will research the validity of the request, verify quantities and pricing and submit to the Owner for approval on a change order request.

B. The additional cost, or credit to the Owner resulting from a change in the Work shall be by mutual agreement of the Owner, Contractor, Construction Manager and the Architect.

3. PROCESSING A CHANGE ORDER

A. The Contractor will fill in the Change Order Request & Execution Form (COREF) with a brief description of the change, any time extension, and cost changes.

B. The Contractor will attach to the COREF copies of the written quotations from the trade contractors, Contractors, and suppliers. The Labor Detail Sheet and the Change Order Detail forms must be added as an attachment to the COREF. The Contractor and each sub-tier contractor (as applicable) must fill out the Labor Detail Sheet and Change Order Detail Sheet. Samples of these forms are attached.

C. In all cases, this cost or credit shall be based on the "DPE" wages required and the "invoice price" of the materials/equipment needed.

D. "DPE" shall be defined to mean "direct personnel expense". Direct payroll expense includes direct salary plus customary fringe benefits (prevailing wage rates) and documented statutory costs such as workman's compensation insurance, FICA, and unemployment insurance.

1. "Fringe Benefit" is any medical, life or disability insurance, paid time off, etc.

2. "Worker's Compensation" is the insurance required for injuries including medical leave, etc.

3. "FICA" is the costs association with Social Security and Medicare insurance.

4. "Unemployment insurance" is the cost associated with the governmental assessment for employee's unemployment benefits.

E. "Invoice price" of materials/equipment shall be defined to mean the actual cost of materials and/or equipment that is paid by the Contractor (or Subcontractor) to a material distributor, direct factory vendor, store, material provider, or equipment leasing entity.

F. In addition to the above, the Contractor is allowed markup for overhead and profit on additional work performed as outlined in Specification Section 012613, Contractor Compensation.

G. Building Blok Procedures: The Contractor will submit all change order requests and supporting documentation via the Building Blok web-based project management system. Each Contractor will be issued a unique login and password. Each contractor must submit the information as follows:

1. Create a new change order, from your "To-Do List" by clicking on the "Create Issue" tab in the upper right corner and select "Change Order Request".

2. The Contractor will enter a brief description of the change in the "Summary" block. A detailed description of the change will be entered in the "Description of Change" block, to include any changes to documents or time extension. The cost of the change will be entered in the "Total Cost Change" block.

3. The Labor Detail Sheet and the Change Order Detail forms must be added as an attachment to the request. The Contractor and each sub-tier contractor (as applicable) must fill out the Labor Detail Sheet and Change Order Detail Sheet. Samples of these forms are included behind this section. In addition to these forms, the Contractor also must attach any material and equipment rental quotations. All of these documents should be scanned and saved as a PDF file. Click on the "Browse" box to upload the file. Be sure to wait until Building Blok tells you the file was "Uploaded Successfully".

4. Once the information is entered on the form and the proper attachments are uploaded, the contractor will click "Save". The Contractor will be prompted to enter their password to approve an electronic signature. Once you save the request you will have an opportunity to check it before submitting it to the CM. After you verify the COREF is correct click "Recommend Approval" to submit the change request to the CM. The Contractor will then be prompted to re-enter the password to approve an electronic signature and complete the submission request. Click on "Home" in the upper left corner to make sure the change order does not appear on your To-Do List.

5. The Change Order Request will then be reviewed by the CM Project Manager and Recommended for Approval, Rejected, or returned to the Contractor for additional information. Once the Construction Manager, Owner, and Architect have approved the request all parties will receive an email from Building Blok notifying them that a fully executed Change Order and Contract Recalculation Form can be downloaded from Building Blok. Hard copies of the executed change order and recalculation form will not be provided by the CM.

It is to be clearly stated that no extra work shall commence without an approval from the Owner or Construction Manager or Owner's representative.

END OF SECTION

CHANGE ORDER REQUEST & EXECUTION FORM

110 South Poplar Street
Suite 400
Wilmington, DE 19801

Tel. 302-421-5700
Fax 302-421-5715

DATE:
CONTRACT:
CONTRACTOR:

PROJECT NAME:
REQUEST NUMBER:
CHANGE ORDER NUMBER:
STATE PO NUMBER:

The following is a summary of the request submitted by the contractor as described above. All supporting documents have been attached and described herewith. This summary shall contain a total amount of compensation requested by the contractor as well as any request for an extension in contract time. It shall be understood that the amounts described below shall remain valid for a period of sixty days from the date described above unless otherwise stated.

A detailed breakdown of Labor, material, equipment, and subcontract costs must be attached to be considered for review.

1. Summary Description(s):

2. Changes to the Contract Drawings:

3. Changes to the Project Manual:

4. Total Cost Change:

5. Total Time Change:

REVIEWED

This request has been reviewed and____approval_____disapproval is recommended by:

Name Title Date

APPROVED

This change order request is not approved until executed by all parties bound by a contractual relationship. Upon execution it shall represent a modification to the agreement and is subject to all terms and conditions of the contract documents.

Contractor:	Architect:
Signed By:	Signed By:
Title:	Title:
Date:	Date:
EDiS Company	Owner:
Signed By:	Signed By:
Title:	Title:
Date:	Date:

CHANGE ORDER DETAIL FORM

(Provided by contractor, subcontractor or sub tier contractor)

DATE SUBMITTED:

CONTRACT:

CONTRACTOR:

PROJECT NAME: CSD William Penn High School

CHANGE ORDER REQUEST #:

LABOR SECTION

TRADESMAN(s):	LABOR HOURS	RATE (per schedule)	SUBTOTAL
Subtotal			

MATERIAL SECTION

MATERIAL:	QUANTITY	UNIT COST	SUBTOTAL
Subtotal			

EQUIPMENT SECTION

EQUIPMENT:	QUANTITY	UNIT COST	SUBTOTAL
Subtotal			

SUBTOTAL	
SUBCONTRACTOR/ SUB TIER*	
OH & PROFIT (10% on sub/sub tier only))	
BOND COST	
OH & PROFIT (15% on own work)	
GRAND TOTAL	

LABOR DETAIL FORM

(Provided by contractor, subcontractor, or sub-tier contractor)

DATE:

CONTRACT:

CONTRACTOR:

PROJECT NAME: CSD William Penn High School

CHANGE ORDER REQUEST #:

CLASSIFICATION:			
Base Wage Rate:			
Health Insurance			
Holidays			
Sick Days			
Life Insurance			
Disability Insurance			
Dental Insurance			
Company Vehicle			
401K			
Education			
Other (*specify below*)			
Subtotal			
Posted Prevailing Rate			
FICA (Social Security & Medicare)			
SUTA (State Unemployment)			
FUTA (Federal Unemployment)			
General Liability Insurance			
Worker's Compensation			
Total Wage Rate			

SECTION 012613 - CONTRACTOR COMPENSATION

1. GENERAL

A. The Contractor agrees to perform any additional Work, for the net cost of materials and labor (including wages paid, payroll taxes, and all insurance) plus the following percentage for all of his overhead and profit, which includes Field Supervision:

The percentages to be added or allowed for any Work change involving both added Work and omitted Work shall be applied only to the net difference in cost.

1. 15% mark-up (10% overhead and 5% profit) by the Contractor on Work performed by his own forces.

2. For work done by a Subcontractor, 10% for subcontractor overhead and 5% for subcontractor profit to which the Contractor may add 7.5% for his overhead and profit combined.

3. Contractor mark-up shall include supervision, home and field overhead, all self-owned small tools and equipment.

B. When the Contractor is directed to perform overtime work at the CM (Owner) expense to accelerate contractual work, the cost for same shall only be the actual premium costs incurred by the Contractor.

END OF SECTION

SECTION 012900 - PAYMENT PROCEDURES

1. GENERAL PROVISIONS

   A. The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary and other conditions, if any) and Division 1 as appropriate, apply to the Work specified in this Section.

   B. Refer to provisions in AIA Document A232 - 2019 Edition, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, CONSTRUCTION MANAGER AS ADVISOR EDITION, for requirements in addition to those specified in Division 1.

   C. For work being constructed under separate prime contracts, provisions of this Section apply to each contract being bid.

2. REQUIREMENTS INCLUDED

   A. Submit Applications for Payment to Construction Manager in accordance with the schedule and procedures established in the Contract Documents.

3. RELATED REQUIREMENTS

   A. Owner-Contractor Agreement.

   B. Conditions of the Contract: Article 9 PAYMENTS AND COMPLETION.

   C. Section 01 31 13: Project Coordination Meetings

   D. Section 01 33 00: Submittal Procedures

   E. Section 01 77 00: Closeout Procedures

4. FORMAT AND DATA REQUIRED

      A. Submit itemized applications inputted into Building Blok (EDiS' Web-Based Project Management software), examples of which will be furnished to the Contractor at the Pre-Construction meeting.

      B. Provide itemized data on Continuation Sheet:

         1. Format, schedules, line items and values: Duplicates of those of the schedule of values previously accepted by the Construction Manager.

5. PREPARATION OF APPLICATIONS FOR PROGRESS PAYMENTS

A. Form: AIA Document G702

1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.

2. Fill in summary of dollar values to agree with respective totals indicated on Continuation Sheets.

B. Continuation Sheets:

1. Line items of components of Work will be subject to Construction Manager/Owner's review and approval under the Provisions of Section 013300 - SUBMITTALS, and the General Conditions. Continuation Sheets shall follow Schedule of Values submitted at the start of the job.

2. Fill in total list of all scheduled components of Work, with item number and scheduled dollar value for each item. Fill in values of work completed in the period.

3. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored; round off values to nearest dollar.

4. List each Change Order executed prior to date of submission, at the end of the Continuation Sheets; list by Change Order Number, and description, as for an original component item of work.

5. Contractor is to include a line item for "Closeout Documents" equaling 3.5% of their contract value.

6. PREPARATION OF APPLICATION FOR FINAL PAYMENT

A. Fill in Application form as specified in progress payments.

7. SUBMITTAL PROCEDURES

A. Complete Invoice:

1. Submit completed Application to the Construction Manager by the date stipulated in the Project Manual.

B. Number: Submit 3 hard copies of each Building Blok invoice signed and notarized payment application.

END OF SECTION

SECTION 013113 - PROJECT COORDINATION MEETING

1. PROJECT COORDINATION MEETING

   A. An on-site project coordination meeting will be held on a biweekly basis throughout the project construction period.

2. ATTENDANCE

   A. Attendance at the project coordination meeting is mandatory of each Contractor or major supplier on the project.

   B. The representative of the Contractor shall be the Project Manager and field superintendent unless a substitute representative has been approved by the Construction Manager.

   C. Contractor will begin attending the Project Coordination Meetings at least 4 weeks prior to mobilization on site and will continue until the Contractor has fulfilled the obligations of his Contract.

3. AGENDA

   A. The Construction Manager will set the agenda for the biweekly Project Coordination Meeting.

   B. At a minimum, the Contractor shall be prepared to discuss the following:

      1. Actual vs. as planned progress for the prior two-week period.

      2. Planned construction activities for the next four weeks.

      3. Contract document clarifications.

      4. Coordination items with other contractors.

      5. Quality Control.

      6. Recently issued change orders.

      7. Potential change orders.

      8. Submittals and shop drawings.

      9. Other items requiring Construction Manager's attention.

END OF SECTION

SECTION 013119 – PRE-INSTALLATION MEETINGS

1. PRE-INSTALLATION MEETINGS

   A. An on-site pre-installation meeting will be held at least two weeks prior to commencement of installation of work.

2. ATTENDANCE

   A. Attendance at the pre-installation meeting is mandatory of each Contractor and/or major supplier as required for each specific meeting listed below.

   B. The following individuals shall attend these meetings:
      - Contractors' Project Manager
      - Contractors' Field Superintendent
      - Contractors' Safety Representative (as needed)
      - Key Subcontractors, Suppliers, and Vendors
      - EDiS Project Manager
      - EDiS Field Manager
      - EDiS Safety Director (as needed)
      - EDiS MEP Specialist (as needed)
      - Owner's Representative (as needed)
      - Architect/Engineer (as needed)
      - Governmental Agency Representatives (as needed)
      - Testing/Inspection Agency Representatives (as needed)
      - Utility Company Representatives (as needed)

3. SUBMITTALS

   A. Each contractor is responsible to have all submittals and mock-ups, as related to the pre-installation meeting scope of work, submitted and approved prior to commencement of the pre-installation meeting.

4. LIST OF REQUIRED MEETINGS

   - Erosion and Sediment Control
     - DNREC Pre-Construction Meeting
     - Stormwater Infiltration Facilities Pre-Construction Meeting

   - Sitework
     - Bulk Grading
     - Asphalt Paving
     - Concrete Curbs, Gutters, & Sidewalks
     - Site Utilities

   - Landscaping

- DELDOT
  - Temporary Entrance Pre-Construction Meeting
  - Entrance Pre-Construction – Basin Road
  - Entrance Pre-Construction – Frenchtown Road

- Maintenance of Traffic Coordination
  - Internal Campus MOT, per phase.
  - Basin Road MOT
  - Frenchtown Road MOT

- Owner Furnished Equipment

- Final Cleaning

5. AGENDA

   A. At a minimum, the Contractor shall be prepared to discuss the items as listed on the agenda template shown on the following page:

PROJECT: CSD – William Penn High School

PRE-INSTALLATION MEETING:

A. ATTENDEES:

NAME	COMPANY	WORK ITEM	CONTRACT

B. TESTING & INSPECTION REQUIREMENTS
(THESE REQUIREMENTS COME FROM THE PROJECT MANUAL)

C. REVIEW CONTRACT DRAWINGS AND SPECIFICATIONS

Drawing / Spec No.	Comments / Conflicts

D. REVIEW SCOPES OF WORK ***(SEE SECTION 011100 IN THE PROJECT MANUAL)***

E. REVIEW RELEVANT RFI'S

F. REVIEW SUBMITTALS ***(SEE THE SUBMITTAL REGISTER)***

G. REVIEW MATERIALS AND DELIVERIES

H. REVIEW SCHEDULE AND SEQUENCE OF WORK

I. JOB SITE SAFETY ***(SEE THE CONTRACTOR'S SAFETY PROGRAM OR OSHA)***

- Safety Plans must be submitted before the start of work
- Certificates of Insurance need to be submitted before the start of work
- Minimum PPE – Hardhats, steel toe boots, safety glasses
- Lock-out, Tag, Test and Try ALL utilities is critical before the start of demolition
- Signage & HAZCOM Requirements
- Potential Hazards
  - Excavations >4 ft
  - Slips/trips/falls
  - Existing utilities to remain and protected
  - Overhead debris
  - Power tools
  - Heavy equipment

J. COORDINATION WITH OTHER TRADES

K. ACTION ITEMS AND RESPONSIBILITY

END OF SECTION

SECTION 013125– WEB-BASED PROJECT MANAGEMENT SYSTEM

1. GENERAL PROVISIONS

   A. The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary and other Conditions, if any) and Division 1 as appropriate, apply to the Work specified in this Section.

   B. Refer to provisions in AIA Document A232 – 2019 EDITION, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, for requirements in addition to those specified in Division 1.

   C. Refer to Scope Information Sheets for all contracts bound in the Project Manual under Section 011100 - SUMMARY OF WORK. The Scope Information Sheets describe generally the work included in each contract, but the work is not necessarily limited to that described.

   D. All Contractors shall use Internet/Web-based project management software to transmit documents, track, and otherwise manage this project.

   E. Use of this project management software will not change any contractual responsibilities of the construction team members.

2. DEFINITIONS

   A. System: A real time web-based software that shares data, translates data, organizes data, facilitates communication, archives actions, and offers scheduling prompts to identified Users.

   B. Users: Authorized participants of this project furnished with a unique password and authorized to access the system to view/input/export data. Owner, Construction Manager, Architect, and the Contractors are all Users. Other Users may be added as necessary.

   C. Contacts: Entities identified to automatically receive specific transmissions or entities selected to receive specific information sent by the system through to an e-mail address.

   D. Signees: Those individuals identified, by the Contractors, authorized to sign change orders and payment applications via electronic signature. This electronic signature is as contractually binding as an original signature on paper.

3. USE OF SYSTEM

   A. The use of the system is mandatory for the documentation of the transmittal of all non-oral information, even if the actual transmission of the information is by another means.

   B. The use of the system will be mandatory by the Contractors to send, retrieve, and respond to data.

C. In addition to this web-based project management system, the Contractors will be required to use electronic mail (email) for day-to-day communication and correspondence. Email will be the primary means of transmitting written communication (i.e. meeting minutes, draft pay applications, etc.).

4. QUALITY ASSURANCE

A. A three-hour training session in the use of the software for this project will be offered by the Construction Manager at a location convenient to the project site. Attendance by one member of each Contractor's organization is mandatory. Additional attendees may enroll based on availability of training space. All attendees must have a working knowledge of computers. Training can not begin until three working days after the receipt of the submittals indicated below.

B. Technical assistance will be provided by on-line help, email, or telephone for all Users through-out the life of the project.

5. SUBMITTALS

A. Submit to the Construction Manager, within 5 days following the receipt of the letter of intent to award, in an electronic template, the following:

1. Electronic logo of organization (as needed)
2. Names, mailing address and electronic address of its Users and Contacts.
3. Designation the role/responsibility for each User

6. SOFTWARE AND HARDWARE REQUIREMENTS

A. Each User shall provide and maintain a computer with high-speed internet access and an email address. The computer shall have a high-speed internet browser (Internet Explorer 8.0 or higher, Firefox version 3.6.12 or higher, Google Chrome or Safari version 5.0 or higher) and a high speed cable Internet access, high speed DSL or T1 line.

B. License(s) to Use System - Each Contractor will be provided unlimited licenses to use the system for this project. Each license will allow secure unlimited usage from the notice to proceed until the original contract completion date.

7. SYSTEM DESCRIPTION

A. The web-based project management system is a "secure, real-time, interactive, centralized database" specifically established and maintained for the management of this construction project. The product is designed to facilitate communication and improve the time management of its users by facilitating the sharing of information. Information will be available 24/7, from any computer meeting the specifications listed above. The information is fully protected. The electronic platform allows information to be transmitted across the internet reducing printing and postage costs and the time associated with such activities.

B. The system contains a directory of the project participants.

C. The system includes templates, with the CM's letterhead, for each document created inside the system. The template allows the use of "pull down" menus to complete significant portions of each document.

D. The system allows the templates (and attached documents created outside the system) to be distributed to Users and Contacts.

E. The System contains "translation software" to permit the viewing (and marking) of documents created outside the system. The system can view documents created by different software programs and can deliver images of its translation to any computer meeting the criteria listed above.

F. The system can be personalized by the Construction Manager to automatically send e-mail notices upon issuance of certain documents if such a practice facilitates the User's business needs.

G. The system is the product of ***Building Blok, LLC*** (www.buildingblok.com) and will be continuously updated.

H. The Construction Manager will administer the Building Blok User accounts for this project.

8. DOCUMENTS CREATED INSIDE THE SYSTEM

A. The following documents shall be created on templates inside the system.

1. Transmittals for submittals processed in the system. The transmittals are automatically created by the system when the submittal is uploaded.
2. Submittal Register showing all of the submittals required of the contract, assigned to each Contractor.
3. Submittal Log: The CM will maintain submittal log after it is initialized.
4. RFI (Requests for Information)
5. Change Orders
6. RFP (Requests for Proposal)
7. ASI (Architect's Supplemental Instructions)
8. Tasks & Memos as determined by the CM
9. Payment Applications
10. Closeout Tracking Log

B. The following documents may, at each Users option, be created on the system.

1. Morning & Afternoon Activity Reports generated by the system
2. E-mails: Contacts that do not have access to the system may be sent information from the system, by the system.
3. Reports of information on the system

4. Project Notices: "Broadcast" messages can be sent to other Users system entry screen.

9. DOCUMENTS CREATED OUTSIDE THE SYSTEM AND DISTRIBUTED BY THE SYSTEM

A. The following documents are expected to be created outside the system and distributed through the system. The actual documents may be scanned or electronically attached to the transmittal.

1. Technical Submittals: Shop drawings, product data, testing reports, certifications, installation instructions, operation & maintenance manuals, will be submitted and distributed through the system. The Architect will return all submissions through the system electronically. The Construction Manager will distribute submittals (after Architect's action) electronically. Contractors may download and distribute submittals to their subcontractors and suppliers or elect to print paper copies for distribution, or both.
2. Photographs: Digital photographs and scanned images can be loaded onto the system and shared.
3. Schedule of Values/ Payment Applications: (The "pencil" review of these documents can occur inside the system).
4. Change Orders: (The "pencil" review of these documents can occur inside the system.)
5. Schedules: The schedule document(s) will be available for review on the system.
6. Data created in other software may be uploaded to the system electronically.

10. DOCUMENTS CREATED OUTSIDE THE SYSTEM AND DISTRIBUTED OUTSIDE THE SYSTEM

A. The following documents are expected to be created outside the system and distributed outside the system. The actual documents may be scanned or electronically attached to the transmittal.

1. Schedules: The Construction Manager will develop the Master Schedule through Microsoft Project 2003. The schedule will be distributed either through hard copies at meetings or through email.
2. Product samples, color samples, physical samples are still required to be provided per the technical specifications, however, the transmittal documenting the distribution shall be done inside the system and submitted electronically and printed to accompany the actual submission.
3. Meeting minutes will be created using Microsoft Word 2003 and distributed through hard copies at meetings or through email.
4. AIA closeout documents, which require an "original" signature, will created and distributed outside the system.

END OF SECTION

SECTION 013216 - CONSTRUCTION SCHEDULE

1. PRE-BID CONSTRUCTION SCHEDULE

   A. Time is a critical element of this Project. By entering a bid, the Contractor agrees to adhere to the intermediate Milestone Dates and Dates of Substantial and Final Completion established herein. The Contractor also understands that all work must be performed in an orderly and closely coordinated sequence in order to achieve the specified Milestones and Completion Dates, and the Contractor hereby agrees to perform his work in conformance with the Pre-Bid Construction Schedule established herein, or with the then current and approved Project Construction Schedule as amended from time to time by the Construction Manager.

   B. The Pre-Bid Construction Schedule is a milestone schedule with durations that identify portions of the project that must be completed. This schedule includes allowances for time lost due to adverse and abnormal weather conditions, other than floods, hurricanes, tornadoes, lightening and other like acts of God. The Contractor understands and agrees that it shall not be entitled to any extensions of the Contract Time or adjustment to the Contract Sum, except as allowed in the General Conditions of the Contract for Construction. The Contractor further acknowledges that the Work may be required to be performed during the winter season, that conditions during this season may be adverse and abnormal, but that such conditions will not be the basis for an extension of the Contract Time or adjustment to the Contract Sum. By submitting a bid, each Contractor is certifying that they can complete their work within the durations, or less time, outlined in the milestone schedule and its bid includes any and all costs associated with the schedule. This includes one Contractor completing their work in conjunction with another Contractor's work (i.e. electrical conduits installed in CMU walls). Each Contractor agrees to provide sufficient labor, crew size, equipment and/or work overtime, weekends, or shiftwork as necessary to meet the activity durations on this schedule and subsequently the latest coordinated Project Construction Schedule.

2. SCHEDULING OF THE WORK AFTER AWARD OF CONTRACT

   A. After award of Contract, or issuance of a Notice to Proceed, the Contractor will meet with the Construction Manager to review the Pre-Bid Construction Schedule, and the overall project plan for construction. Following the above review, the Contractor will meet with each subcontractor and supplier to view the detailed plans for performing his Work. Following these meetings and within fourteen (14) days after award of the Contract or issuance of a Notice to Proceed, the Contractor shall prepare and submit for the Construction Manager's approval a Work Schedule providing for the expeditious, timely and practical execution of the Work. The Contractor's Work Schedule shall include activity descriptions and durations for shop drawings, fabrication, delivery, and installation. The Contractor's Work Schedule shall be organized by Area, Building, Phase, and/or Floor as required by the Construction Manager. If the Construction Manager so requests, the Contractor shall provide adequate explanation regarding crew sizes, production rates and similar data used to arrive at the durations and sequences. If the Contractor fails to provide a work schedule for their activities then they will be held to the Project Construction Schedule developed and updated by the Construction Manager.

   B. The Construction Manager shall review the Contractor's Work Schedule, coordinate it with the

separate work by other contractors, the Owner, and the Construction Manager, and after coordination, shall incorporate it into the approved Project Construction Schedule.

C. After all Contractors submit their Work Schedules and the schedules have been incorporated into the overall Project Construction Schedule a Schedule Charrette will be held by the Construction Manager. Each Contractor is required to participate in the Schedule Charrette in order to produce a coordinated Project Construction Schedule. The Construction Manager will have the final authority concerning the sequence of work, priorities or work, and activity durations. The approved coordinated Project Construction Schedule shall be issued to the Contractors and each Contractor shall perform their Work in conformity therewith.

C. The Contractor shall submit proposed schedule revisions and obtain the written approval of the Construction Manager therefore before deviating from the Project Construction Schedule.

D. The Construction Manager will incorporate approved schedule revisions into the Project Construction Schedule and shall otherwise update and revise the Project Construction Schedule as the Construction Manager, at his sole discretion, deems necessary. Each Contractor acknowledges that Construction Manager may modify, change, or alter the sequence, duration, start dates, completion dates to maintain the progress of the work. Contractor agrees to perform the work in accordance with the revised schedules and that modification of the schedule or sequence of the work by the Construction Manager shall not be the basis of any claim by the Contractor for damages or costs.

E. Weather Delays: The project substantial completion date, shall only be adjusted due to extreme weather conditions that are above and beyond the following "Adverse Weather Days" already accounted for in the Pre-Bid Construction Schedule. These adverse weather days are based on a seven day week and come from the DelDOT Standards:

a. January (12), February (10), March (5), April (5), May (4), June (2), July (4), August (3), September (4), October (3), November (2), and December (6).
b. Time extension due to weather must be related to critical path activities.
c. Delays due to weather must be reported by the Contractor on the day they occur on the Contractor's daily report.
d. Any time lost during the work week must be made up the same week by overtime and/or working weekends. The Owner will not be responsible for additional costs for overtime.

3. ADHERENCE TO THE SCHEDULE

A. The Contractor shall start each part of its Work on the date designated for start in the approved Project Construction Schedule unless advised by the Construction Manager. The Contractor shall carry the Work forward expeditiously with adequate forces, equipment, and materials, and shall complete each part of his work on or before the date designated in the approved Project Construction Schedule.

B. If the Construction Manager determines that the Contractor is behind schedule, the Construction Manager shall have the right to require that the Contractor take steps, at the Contractor's expense,

to accelerate its Work. Such steps shall include increases in manpower, equipment, and materials and/or overtime as the Construction Manager may deem necessary. If any work is not started or completed within five (5) calendar days of the schedule date in the latest Project Construction Schedule, the Construction Manager shall have the right to direct the Contractor to expedite their work by whatever means the Construction Manager deems necessary to regain the schedule, without additional compensation to the Contractor. If any work falls behind schedule more than ten (10) days, the Construction Manager shall have the right to perform the work or have the work performed by whatever means the Construction Manager deems necessary. The costs incurred by the Construction Manager in order to "maintain the Project Construction Schedule" shall be reimbursed by the Contractor or Contractors causing the delay. If the Contractor fails to comply with the Construction Manager's instructions relating to improved rate of progress, the Contractor may be held in default under the appropriate provisions of the General Conditions of the Contract.

C. Each Contractor shall, if directed by the Construction Manager, provide the Construction Manager a two-week look ahead of anticipated manpower showing the number of men, classification, and anticipated work.

D. Each Contractor must schedule their manpower to work on all available work at a given time. Contractors must not assume that they have an entire work area available at one time or exclusive to their work. Working simultaneously in and around other trades is required. Therefore, if an area of the building is ready for the Contractor's work to begin or continue the Contractor must have manpower onsite working.

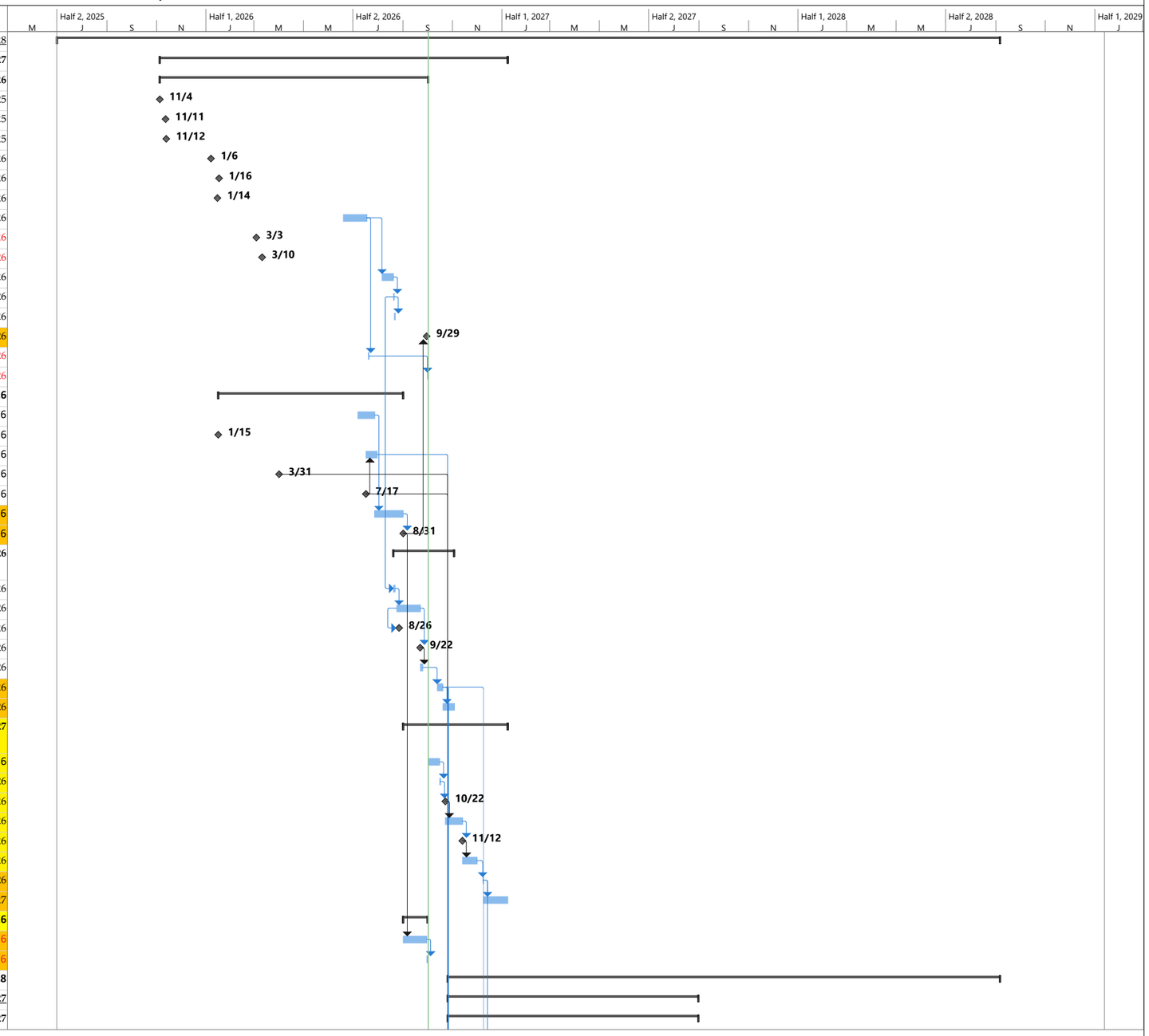
E. If a Contractor misses any portion of a workday due to weather, manpower, lack of materials, failure to plan, or scheduling conflicts, they must make-up this lost time on overtime or Saturday. If two or more days are lost in the same work week, the Contractor must work overtime, the immediate Saturday and the Saturdays following the week to make up the lost days. Failure to provide sufficient manpower during the normal week days may result in charges for supervision by EDiS Company, at the discretion of EDiS Company.

F. All punchlist work and project closeout documentation shall be completed within twenty-one (21) calendar days of the Substantial Completion date. Any open punchlist items after this date will be completed by EDiS Company and back charged to the responsible Contractor.

END OF SECTION

Colonial School District
William Penn HS - Athletic Complex & Renovations
Preliminary Construction Schedule
July 15, 2026

ID	Task Name	Duration	Start	Finish	Scheduled Start	Scheduled Finish
1	WILLIAM PENN ATHLETICS COMPLEX	813 days	Tue 7/1/25	Tue 9/5/28	Tue 7/1/25	Tue 9/5/28
2	**PRECONSTRUCTION**	**297 days**	**Tue 11/4/25**	**Thu 1/7/27**	**Tue 11/4/25**	**Thu 1/7/27**
3	**Architecture/Engineering Design Tasks**	**231 days**	**Tue 11/4/25**	**Thu 10/1/26**	**Tue 11/4/25**	**Thu 10/1/26**
4	Schematic Design To Colonial SD	0 days	Tue 11/4/25	Tue 11/4/25	Tue 11/4/25	Tue 11/4/25
5	Schematic Design Board Approval	0 days	Tue 11/11/25	Tue 11/11/25	Tue 11/11/25	Tue 11/11/25
6	Schematic Design DOE Submission	0 days	Wed 11/12/25	Wed 11/12/25	Wed 11/12/25	Wed 11/12/25
7	DD Submission to Colonial SD	0 days	Tue 1/6/26	Tue 1/6/26	Tue 1/6/26	Tue 1/6/26
8	DD Board Approval	0 days	Fri 1/16/26	Fri 1/16/26	Fri 1/16/26	Fri 1/16/26
9	DD Submission (OMB & DOE)	0 days	Wed 1/14/26	Wed 1/14/26	Wed 1/14/26	Wed 1/14/26
10	AAB/DEMA/FM submission	21 days	Fri 6/19/26	Fri 7/17/26	Fri 6/19/26	Fri 7/17/26
11	100% Construction Doc to Colonial SD	0 days	Tue 3/3/26	Tue 3/3/26	Tue 3/3/26	Tue 3/3/26
12	100% Construction Document Submission Board Approval	0 days	Tue 3/10/26	Tue 3/10/26	Tue 3/10/26	Tue 3/10/26
13	OMB/GSS Final Submission	10 days	Thu 8/6/26	Wed 8/19/26	Thu 8/6/26	Wed 8/19/26
14	OMB Approved for 1st Advertising	1 day	Thu 8/20/26	Thu 8/20/26	Thu 8/20/26	Thu 8/20/26
15	OMB Approved for 2nd Advertising	1 day	Fri 8/21/26	Fri 8/21/26	Fri 8/21/26	Fri 8/21/26
16	Permit Received (coincide w/ Record Plan)	0 days	Tue 9/29/26	Tue 9/29/26	Tue 9/29/26	Tue 9/29/26
17	Bid Package A Issued for Bidding	1 day	Mon 7/20/26	Mon 7/20/26	Mon 7/20/26	Mon 7/20/26
18	Bid Package B Issued for Bidding	1 day	Thu 10/1/26	Thu 10/1/26	Thu 10/1/26	Thu 10/1/26
19	**Site Plan Approvals**	**161 days**	**Thu 1/15/26**	**Mon 8/31/26**	**Thu 1/15/26**	**Mon 8/31/26**
20	New Castle County Final Construction Plan Submission & Revi	15 days	Tue 7/7/26	Mon 7/27/26	Tue 7/7/26	Mon 7/27/26
21	BoA Hearing for Field Lighting	0 days	Thu 1/15/26	Thu 1/15/26	Thu 1/15/26	Thu 1/15/26
22	DNREC E&S / SWM plan approval	10 days	Fri 7/17/26	Thu 7/30/26	Fri 7/17/26	Thu 7/30/26
23	DelDOT Development Coordination Approval	0 days	Tue 3/31/26	Tue 3/31/26	Tue 3/31/26	Tue 3/31/26
24	DelDOT Entrance Plan Approval	0 days	Fri 7/17/26	Fri 7/17/26	Fri 7/17/26	Fri 7/17/26
25	New Castle County Record Plan Submission & Review	25 days	Tue 7/28/26	Mon 8/31/26	Tue 7/28/26	Mon 8/31/26
26	NCCo Recordation	0 days	Mon 8/31/26	Mon 8/31/26	Mon 8/31/26	Mon 8/31/26
27	**Bid Package A - Sitework & Long Lead Procurement - OMB BIDDING PROCESS**	**52 days**	**Thu 8/20/26**	**Mon 11/2/26**	**Thu 8/20/26**	**Mon 11/2/26**
28	OMB Processing/Posting Time	2 days	Thu 8/20/26	Fri 8/21/26	Thu 8/20/26	Fri 8/21/26
29	Bid Period	4 wks	Mon 8/24/26	Mon 9/21/26	Mon 8/24/26	Mon 9/21/26
30	Pre-Bid Conference	0 days	Wed 8/26/26	Wed 8/26/26	Wed 8/26/26	Wed 8/26/26
31	Open Bids	0 days	Tue 9/22/26	Tue 9/22/26	Tue 9/22/26	Tue 9/22/26
32	Evaluate Bids	3 days	Tue 9/22/26	Thu 9/24/26	Tue 9/22/26	Thu 9/24/26
33	BOARD APPROVAL	1 wk	Tue 10/13/26	Mon 10/19/26	Tue 10/13/26	Mon 10/19/26
34	AWARD AND EXECUTE SUBCONTRACTS	2 wks	Tue 10/20/26	Mon 11/2/26	Tue 10/20/26	Mon 11/2/26
35	**Bid Package B - Athletic Complex Buildings - OMB BIDDING PROCESS**	**88 days**	**Tue 9/1/26**	**Thu 1/7/27**	**Tue 9/1/26**	**Thu 1/7/27**
36	GSS Review	10 days	Fri 10/2/26	Thu 10/15/26	Fri 10/2/26	Thu 10/15/26
37	OMB Processing/Posting Time	1 day	Fri 10/16/26	Fri 10/16/26	Fri 10/16/26	Fri 10/16/26
38	Pre-Bid Conference	0 days	Thu 10/22/26	Thu 10/22/26	Thu 10/22/26	Thu 10/22/26
39	Bid Period	3 wks	Fri 10/23/26	Thu 11/12/26	Fri 10/23/26	Thu 11/12/26
40	Open Bids	0 days	Thu 11/12/26	Thu 11/12/26	Thu 11/12/26	Thu 11/12/26
41	Evaluate Bids	2 wks	Fri 11/13/26	Mon 11/30/26	Fri 11/13/26	Mon 11/30/26
42	BOARD APPROVAL	1 day	Tue 12/8/26	Tue 12/8/26	Tue 12/8/26	Tue 12/8/26
43	AWARD AND EXECUTE SUBCONTRACTS	1 mon	Wed 12/9/26	Thu 1/7/27	Wed 12/9/26	Thu 1/7/27
44	**NCCo Building Permits**	**21 days**	**Tue 9/1/26**	**Wed 9/30/26**	**Tue 9/1/26**	**Wed 9/30/26**
45	Submit Plans & Specs for NCCo Building Permit Review	20 days	Tue 9/1/26	Tue 9/29/26	Tue 9/1/26	Tue 9/29/26
46	Issue NCCo Building Permit	1 day	Wed 9/30/26	Wed 9/30/26	Wed 9/30/26	Wed 9/30/26
47	CONSTRUCTION	476 days	Mon 10/26/26	Tue 9/5/28	Mon 10/26/26	Tue 9/5/28
48	PHASE 1 - MOBILIZATION AND PRELIM SITEWORK:	216 days	Mon 10/26/26	Mon 8/30/27	Mon 10/26/26	Mon 8/30/27
49	SITEWORK	216 days	Mon 10/26/26	Mon 8/30/27	Mon 10/26/26	Mon 8/30/27

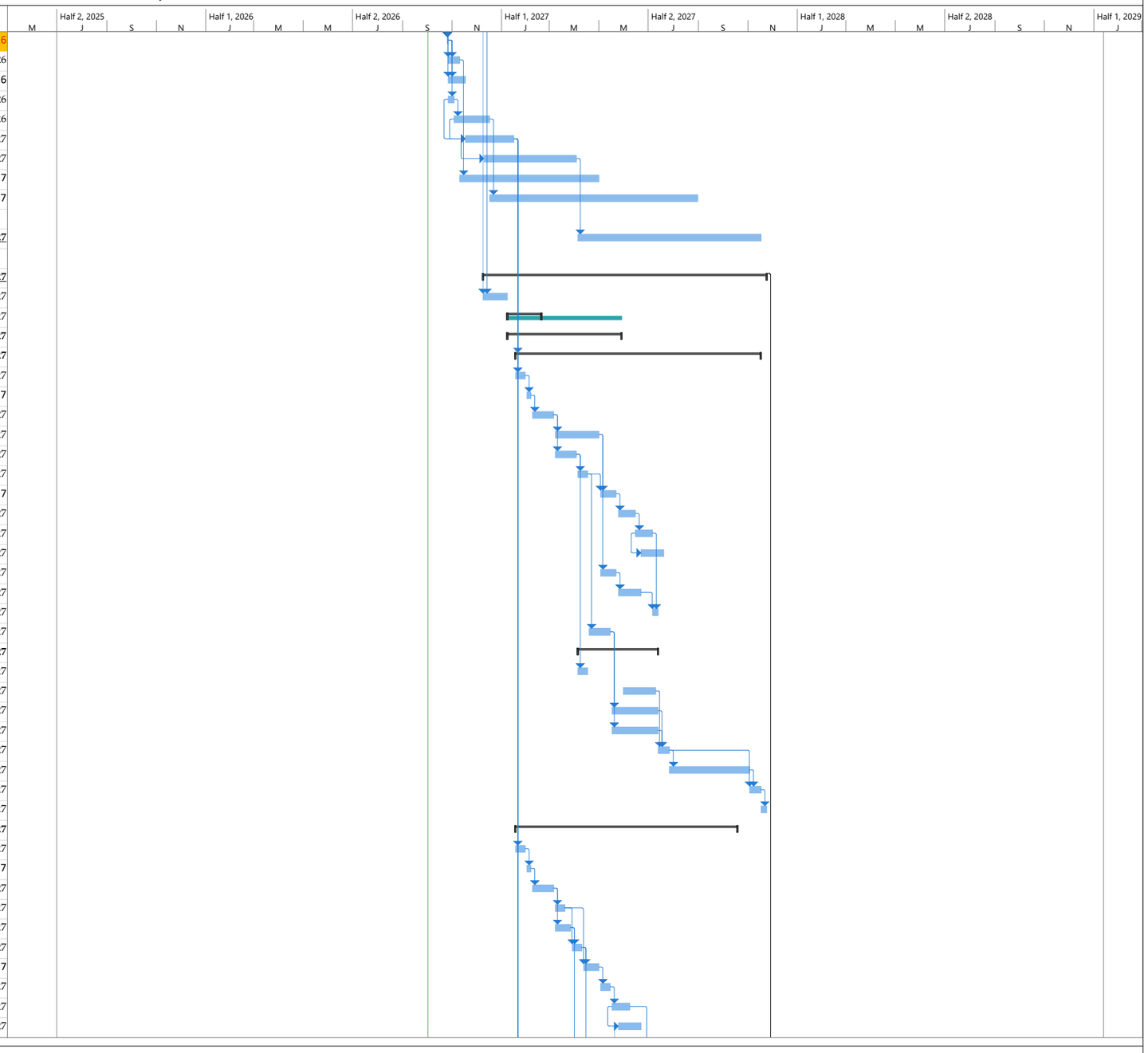


Project: CSD WP Preliminary Construction Schedule
Date: Fri 10/2/26

Task, Split, Milestone, Summary, Project Summary, Inactive Task, Inactive Milestone, Inactive Summary, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Start-only, Finish-only, External Tasks, External Milestone, Deadline, Progress, Manual Progress

Colonial School District
William Penn HS - Athletic Complex & Renovations
Preliminary Construction Schedule
July 15, 2026

ID	Task Name	Duration	Start	Finish	Scheduled Start	Scheduled Finish
50	DNREC PreCon Meeting	1 day	Mon 10/26/26	Mon 10/26/26	Mon 10/26/26	Mon 10/26/26
51	E&S Controls	2 wks	Tue 10/27/26	Mon 11/9/26	Tue 10/27/26	Mon 11/9/26
52	Security Fencing	15 days	Tue 10/27/26	Mon 11/16/26	Tue 10/27/26	Mon 11/16/26
53	Temporary Construction Entrance (SR 273)	1 wk	Tue 10/27/26	Mon 11/2/26	Tue 10/27/26	Mon 11/2/26
54	Stormwater Facility Improvements	6 wks	Tue 11/3/26	Wed 12/16/26	Tue 11/3/26	Wed 12/16/26
55	Bulk Grading Activity	2 mons	Tue 11/17/26	Fri 1/15/27	Tue 11/17/26	Fri 1/15/27
56	Underground Site Utilities	4 mons	Thu 12/10/26	Fri 4/2/27	Thu 12/10/26	Fri 4/2/27
57	Relocate Utilities on Poles on Frenchtown Rd	6 mons	Tue 11/10/26	Fri 4/30/27	Tue 11/10/26	Fri 4/30/27
58	New DelDOT Entrance on Frenchtown Rd	9 mons	Thu 12/17/26	Mon 8/30/27	Thu 12/17/26	Mon 8/30/27
59						
60	**PHASE 2 - NATURAL GRASS SOCCER & HOCKEY FIELD**	**8 mons**	**Mon 4/5/27**	**Tue 11/16/27**	**Mon 4/5/27**	**Tue 11/16/27**
61						
62	**PHASE 3 - NEW COLONIAL STADIUM & FIELD HOUSE**	**246 days**	**Wed 12/9/26**	**Tue 11/23/27**	**Wed 12/9/26**	**Tue 11/23/27**
63	Award & Execute Subcontracts	4 wks	Wed 12/9/26	Thu 1/7/27	Wed 12/9/26	Thu 1/7/27
64	Submittals & Material Procurement	30 days	Fri 1/8/27	Thu 2/18/27	Fri 1/8/27	Fri 5/28/27
65	**Long Lead Materials**	**100 days**	**Fri 1/8/27**	**Fri 5/28/27**	**Fri 1/8/27**	**Fri 5/28/27**
70	**FIELDHOUSE CONSTRUCTION**	**215 days**	**Mon 1/18/27**	**Tue 11/16/27**	**Mon 1/18/27**	**Tue 11/16/27**
71	Fine Grade Building Pad	2 wks	Mon 1/18/27	Fri 1/29/27	Mon 1/18/27	Fri 1/29/27
72	Building Layout	1 wk	Mon 2/1/27	Fri 2/5/27	Mon 2/1/27	Fri 2/5/27
73	Footers, Piers, Foundations	1 mon	Mon 2/8/27	Fri 3/5/27	Mon 2/8/27	Fri 3/5/27
74	Structural Masonry & Bearing Walls	8 wks	Mon 3/8/27	Fri 4/30/27	Mon 3/8/27	Fri 4/30/27
75	MEP Underground Rough-ins	1 mon	Mon 3/8/27	Fri 4/2/27	Mon 3/8/27	Fri 4/2/27
76	Slab on Grade	2 wks	Mon 4/5/27	Fri 4/16/27	Mon 4/5/27	Fri 4/16/27
77	Structural Steel	15 days	Mon 5/3/27	Fri 5/21/27	Mon 5/3/27	Fri 5/21/27
78	Roof Framing	3 wks	Tue 5/25/27	Mon 6/14/27	Tue 5/25/27	Mon 6/14/27
79	Roof Sheathing/Insulation System	3 wks	Tue 6/15/27	Mon 7/5/27	Tue 6/15/27	Mon 7/5/27
80	Exterior & Interior Masonry Wall System	1 mon	Tue 6/22/27	Mon 7/19/27	Tue 6/22/27	Mon 7/19/27
81	Spray Insulation/Weather Barrier	3 wks	Mon 5/3/27	Fri 5/21/27	Mon 5/3/27	Fri 5/21/27
82	Exterior Façade Systems	4 wks	Tue 5/25/27	Mon 6/21/27	Tue 5/25/27	Mon 6/21/27
83	Roof Downspouts	1 wk	Tue 7/6/27	Mon 7/12/27	Tue 7/6/27	Mon 7/12/27
84	Interior Partitons/Framing	1 mon	Mon 4/19/27	Fri 5/14/27	Mon 4/19/27	Fri 5/14/27
85	**MEP Rough-ins**	**70 days**	**Mon 4/5/27**	**Mon 7/12/27**	**Mon 4/5/27**	**Mon 7/12/27**
86	New Water Service	2 wks	Mon 4/5/27	Fri 4/16/27	Mon 4/5/27	Fri 4/16/27
87	New Electrical Service, MDP	6 wks	Mon 5/31/27	Fri 7/9/27	Mon 5/31/27	Fri 7/9/27
88	Mechanical Rough-ins	8 wks	Mon 5/17/27	Mon 7/12/27	Mon 5/17/27	Mon 7/12/27
89	Electrical Rough-Ins	8 wks	Mon 5/17/27	Mon 7/12/27	Mon 5/17/27	Mon 7/12/27
90	MEP Equipment & Startup	2 wks	Tue 7/13/27	Mon 7/26/27	Tue 7/13/27	Mon 7/26/27
91	Interior Finishes & Specialties	14 wks	Tue 7/27/27	Tue 11/2/27	Tue 7/27/27	Tue 11/2/27
92	Final Inspections	2 wks	Wed 11/3/27	Tue 11/16/27	Wed 11/3/27	Tue 11/16/27
93	OBTAIN TEMPORARY OCCUPANCY	5 days	Wed 11/17/27	Tue 11/23/27	Wed 11/17/27	Tue 11/23/27
94	**MAINTENANCE BUILDING CONSTRUCTION**	**194 days**	**Mon 1/18/27**	**Mon 10/18/27**	**Mon 1/18/27**	**Mon 10/18/27**
95	Fine Grade Building Pad	2 wks	Mon 1/18/27	Fri 1/29/27	Mon 1/18/27	Fri 1/29/27
96	Building Layout	1 wk	Mon 2/1/27	Fri 2/5/27	Mon 2/1/27	Fri 2/5/27
97	Footers, Piers, Foundations	1 mon	Mon 2/8/27	Fri 3/5/27	Mon 2/8/27	Fri 3/5/27
98	Structural Masonry	2 wks	Mon 3/8/27	Fri 3/19/27	Mon 3/8/27	Fri 3/19/27
99	MEP Underground Rough-ins	3 wks	Mon 3/8/27	Fri 3/26/27	Mon 3/8/27	Fri 3/26/27
100	1st Floor Slab	2 wks	Mon 3/29/27	Fri 4/9/27	Mon 3/29/27	Fri 4/9/27
101	Structural Steel	15 days	Mon 4/12/27	Fri 4/30/27	Mon 4/12/27	Fri 4/30/27
102	Roof Framing	2 wks	Mon 5/3/27	Fri 5/14/27	Mon 5/3/27	Fri 5/14/27
103	Roof Sheathing/Insulation System	3 wks	Mon 5/17/27	Mon 6/7/27	Mon 5/17/27	Mon 6/7/27
104	Exterior & Interior Masonry Wall System	1 mon	Tue 5/25/27	Mon 6/21/27	Tue 5/25/27	Mon 6/21/27

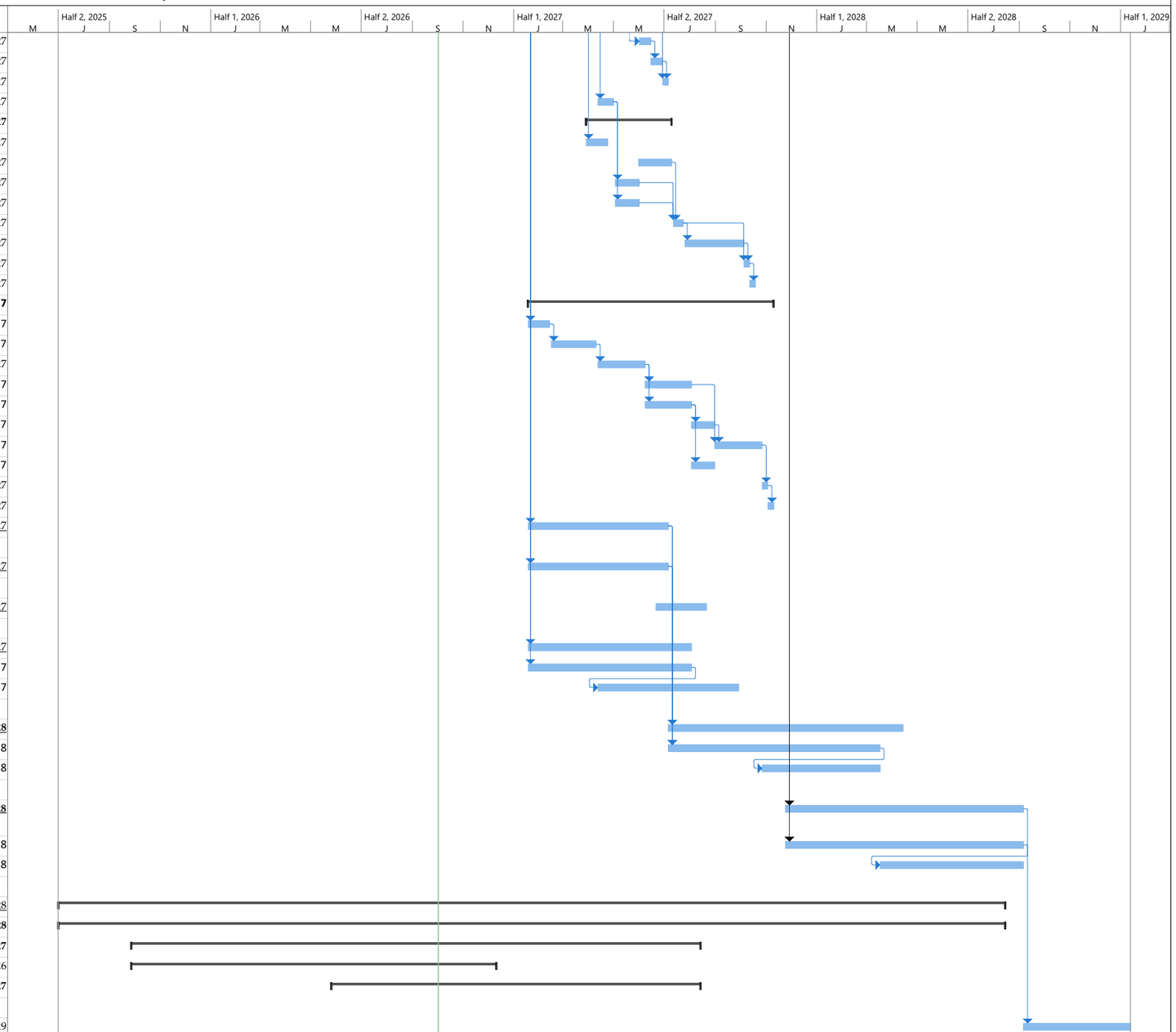


Project: CSD WP Preliminary Construction Schedule
Date: Fri 10/2/26

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress

Colonial School District
William Penn HS - Athletic Complex & Renovations
Preliminary Construction Schedule
July 15, 2026

ID	Task Name	Duration	Start	Finish	Scheduled Start	Scheduled Finish
105	Insulation/Weather Barrier	2 wks	Tue 6/1/27	Mon 6/14/27	Tue 6/1/27	Mon 6/14/27
106	Exterior Façade Systems	2 wks	Tue 6/15/27	Mon 6/28/27	Tue 6/15/27	Mon 6/28/27
107	Roof Downspouts	1 wk	Tue 6/29/27	Mon 7/5/27	Tue 6/29/27	Mon 7/5/27
108	Interior Partitons/Framing	3 wks	Mon 4/12/27	Fri 4/30/27	Mon 4/12/27	Fri 4/30/27
109	**MEP Rough-ins**	**74 days**	**Mon 3/29/27**	**Fri 7/9/27**	**Mon 3/29/27**	**Fri 7/9/27**
110	New Water Service	4 wks	Mon 3/29/27	Fri 4/23/27	Mon 3/29/27	Fri 4/23/27
111	New Electrical Service, MDP	6 wks	Mon 5/31/27	Fri 7/9/27	Mon 5/31/27	Fri 7/9/27
112	Mechanical Rough-ins	4 wks	Mon 5/3/27	Mon 5/31/27	Mon 5/3/27	Mon 5/31/27
113	Electrical Rough-Ins	4 wks	Mon 5/3/27	Mon 5/31/27	Mon 5/3/27	Mon 5/31/27
114	MEP Equipment & Startup	2 wks	Mon 7/12/27	Fri 7/23/27	Mon 7/12/27	Fri 7/23/27
115	Interior Finishes & Specialties	10 wks	Mon 7/26/27	Mon 10/4/27	Mon 7/26/27	Mon 10/4/27
116	Final Inspections	1 wk	Tue 10/5/27	Mon 10/11/27	Tue 10/5/27	Mon 10/11/27
117	OBTAIN TEMPORARY OCCUPANCY	5 days	Tue 10/12/27	Mon 10/18/27	Tue 10/12/27	Mon 10/18/27
118	**STADIUM CONSTRUCTION**	**210 days**	**Mon 1/18/27**	**Tue 11/9/27**	**Mon 1/18/27**	**Tue 11/9/27**
119	Rough grading	1 mon	Mon 1/18/27	Fri 2/12/27	Mon 1/18/27	Fri 2/12/27
120	Drainage layers	2 mons	Mon 2/15/27	Fri 4/9/27	Mon 2/15/27	Fri 4/9/27
121	Prep for Turf	2 mons	Mon 4/12/27	Mon 6/7/27	Mon 4/12/27	Mon 6/7/27
122	Install Turf	2 mons	Tue 6/8/27	Mon 8/2/27	Tue 6/8/27	Mon 8/2/27
123	Prep for Track	2 mons	Tue 6/8/27	Mon 8/2/27	Tue 6/8/27	Mon 8/2/27
124	Install Track	1 mon	Tue 8/3/27	Mon 8/30/27	Tue 8/3/27	Mon 8/30/27
125	Install Bleachers	2 mons	Tue 8/31/27	Tue 10/26/27	Tue 8/31/27	Tue 10/26/27
126	Fencing	1 mon	Tue 8/3/27	Mon 8/30/27	Tue 8/3/27	Mon 8/30/27
127	Final Inspections	1 wk	Wed 10/27/27	Tue 11/2/27	Wed 10/27/27	Tue 11/2/27
128	OBTAIN TEMPORARY OCCUPANCY	5 days	Wed 11/3/27	Tue 11/9/27	Wed 11/3/27	Tue 11/9/27
129	**PHASE 4 - NEW STADIUM PARKING WEST LOT**	6 mons	Mon 1/18/27	Mon 7/5/27	Mon 1/18/27	Mon 7/5/27
130						
131	**PHASE 5 - NEW STADIUM PARKING NORTH LOT**	6 mons	Mon 1/18/27	Mon 7/5/27	Mon 1/18/27	Mon 7/5/27
132						
133	**PHASE 6 - EXISTING PARKING LOTS - East & North**	45 days	Mon 6/21/27	Fri 8/20/27	Mon 6/21/27	Fri 8/20/27
134						
135	**PHASE 7 - TURF AUX FIELDS & CONCESSIONS STAND**	7 mons	Mon 1/18/27	Mon 8/2/27	Mon 1/18/27	Mon 8/2/27
136	Sitework	7 mons	Mon 1/18/27	Mon 8/2/27	Mon 1/18/27	Mon 8/2/27
137	Concessions Building	6 mons	Mon 4/12/27	Tue 9/28/27	Mon 4/12/27	Tue 9/28/27
138						
139	**PHASE 8 - BASEBALL/SOFTBALL TURF FIELDS & RESTROOM**	**10 mons**	**Tue 7/6/27**	**Thu 4/13/28**	**Tue 7/6/27**	**Thu 4/13/28**
140	Sitework	9 mons	Tue 7/6/27	Thu 3/16/28	Tue 7/6/27	Thu 3/16/28
141	Restroom Building	5 mons	Wed 10/27/27	Thu 3/16/28	Wed 10/27/27	Thu 3/16/28
142						
143	**PHASE 9 - GRASS PRACTICE FIELD, TENNIS/PICKLEBALL COURTS & CONCESSIONS STAND**	**10 mons**	**Wed 11/24/27**	**Tue 9/5/28**	**Wed 11/24/27**	**Tue 9/5/28**
144	Sitework	10 mons	Wed 11/24/27	Tue 9/5/28	Wed 11/24/27	Tue 9/5/28
145	Concessions Building	6 mons	Fri 3/17/28	Tue 9/5/28	Fri 3/17/28	Tue 9/5/28
146						
147	EXISTING HIGH SCHOOL BUILDING:	798 days	Tue 7/1/25	Mon 8/14/28	Tue 7/1/25	Mon 8/14/28
148	**Roof Replacments/Renovations**	**798 days**	**Tue 7/1/25**	**Mon 8/14/28**	**Tue 7/1/25**	**Mon 8/14/28**
164	**Interior Improvements**	**479 days**	**Fri 9/26/25**	**Fri 8/13/27**	**Fri 9/26/25**	**Fri 8/13/27**
165	Preconstruction	306 days	Fri 9/26/25	Thu 12/10/26	Fri 9/26/25	Thu 12/10/26
188	**Construction**	**313 days**	**Tue 5/26/26**	**Fri 8/13/27**	**Tue 5/26/26**	**Fri 8/13/27**
191						
192	CONTRACT CLOSEOUT PERIOD	90 days	Wed 9/6/28	Fri 1/12/29	Wed 9/6/28	Fri 1/12/29



Project: CSD WP Preliminary Construction Schedule
Date: Fri 10/2/26

Task | Split | Milestone | Summary | Project Summary | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | External Tasks | External Milestone | Deadline | Progress | Manual Progress

SECTION 013219 - SUBMITTAL REGISTER

1. SUBMITTALS/SUBMITTAL REGISTER

   A. The Contractor shall submit all items listed or specified within the sections of the Specifications included in its Work. Submittals shall include such items as: contractor's, manufacturer's or fabricator's drawings; descriptive literature including, but not limited to, catalog cuts, diagrams, operation charts or curves; test reports; samples, operations and maintenance manuals, including parts lists; certifications; warranties and other required submittals. Submittals pertinent to materials and equipment which are subject to advance approval shall be scheduled and made prior to the acquisition or the delivery thereof.

   B. The Contractor shall carefully control procurement operations to assure that each individual submittal is made on or before the dates required for timely performance of its Work.

   C. Within seven (7) days after award of Contract or issuance of Notice to Proceed, the Contractor shall execute and submit to the Construction Manager, seven (7) copies of the Submittal Register, on a form to be provided by the Construction Manager, on which shall be listed each item of equipment and material of each type for which fabricator's drawings and/or related descriptive data, test reports, samples, spare parts, operation and maintenance manuals, or other types of submittals required by the Specifications. The Submittal Register form shall be reproduced by the Contractor. The order of listing of items on the Register shall conform to the sequence of the items as they occur within the divisions. Drawings of component items forming a system or that are interrelated shall be scheduled to be correlated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time shall be allowed for review and approval and possible resubmittal of any item subject to approval, because no delay damages or time extensions will be allowed for time lost in late submittals or resubmittals. The Construction Manager and Architect/Engineer will review the Submittal Register for approval action. The approved Register will become a part of the Contract and Contractor will be subject to requirements thereof. The Contractor shall revise and/or update the Register monthly to take into account all changes in the Contract. Each such revised edition and/or revision to the Register shall be resubmitted to the Construction Manager. This Register shall be coordinated with related submittals of other Contractors.

2. SAMPLES

   A. Submit tagged or labeled samples in triplicate, unless another quantity is otherwise specified by the Construction Manager.

   B. Tags or labels shall be securely affixed and contain as a minimum the following information: Project Name, Contractor's Name, Contract Title and Number, Date, Transmittal Number, Product Manufacturer's or Fabricator's Name and Product Identifier.

END OF SECTION

SECTION 013226 - SUBCONTRACTOR DAILY REPORTS

1. SUBCONTRACTOR DAILY REPORTS

   A. The Subcontractor shall submit a Daily Report to the Construction Manager on the forms provided covering the following subjects:

      1. Work in Progress, including areas where work is being performed, nature of the operations in progress, and the manpower assigned.

      2. Extra Work (Time and Material) in progress.

      3. Materials Received.

      4. Trade labor breakdown including identification of all workers on site and the number of hours (or portions thereof) worked by each.

      5. Inspection Checklist (performed daily).

   B. The Subcontractor shall submit the Daily Report to the Construction Manager by 9:00 AM on the next workday following the workday covered in the Daily Report.

2. DAILY EXTRA WORK REPORT

   A. The Subcontractor shall submit on the form provided a Daily Extra Work Report on each day he performs authorized Extra Work on a time and material basis.

   B. A separate Daily Extra Work Report shall be submitted for each separate authorized Extra Work item done on a time and material basis.

   C. The Subcontractor shall submit his Daily Extra Work Report as an attachment to his Daily Report by 9:00 AM on the next workday following the workday covered in the Daily Extra Work Report.

3. SAMPLE DAILY REPORT

   A. A sample daily report follows this section for your reference.

END OF SECTION

SAFETY FORM: Contractors Daily Report

Project Name: CSD William Penn High School Date:

Contractor: Contract No. & Description:

Weather: Foreman's Name:

TRADE	CLASS	MANPOWER COUNT	TOTAL MAN HOURS	TODAY'S DESCRIPTION / LOCATION OF WORK
	TOTAL			

** INDICATE: F = FOREMAN; J = JOURNEYMAN; A = APPRENTICE*

Work Status/Work Planned:

Construction Equipment:

Deliveries or Materials:

Machinery, tools, material, and equipment to be used:

Inspection of work area, machinery, tools, material, or equipment:

The use of any machinery, tool, material, or equipment which is not in compliance with any applicable requirements is prohibited. Such machine, tool, material or equipment shall either be identified as unsafe by tagging or locking the controls to render them inoperable or shall be physically removed from its place of operation.

Below is a general checklist of requirements for this project. Contractors must check off items that pertain to their contract and project tasks. Notify the EDiS Superintendent of any questionable conditions.

This checklist is not meant to be all inclusive. Please refer to OSHA regulations for compliance.

House Keeping
☐ Material Storage area orderly
☐ Lighting and ventilation sufficient
☐ Exits and Stairs have clear passage
☐ Walkways, corridors have clear passage
☐ Daily debris /trash removal

Personal Protective Equipment
☐ Hard Hats being worn
☐ Safety Glasses with side shields being worn
☐ Additional Eye/Face protection
☐ Respirators as required
☐ Hand protection as required
☐ Ear protection as required
☐ Inspected & Maintained
☐ Stored properly

Fire Prevention
☐ Fire extinguishers inspected / available
☐ Flammable / Combustibles properly stored
☐ Approved Fuel cans used and labeled
☐ Oxygen / Acetylenes stored properly
☐ Hot work permit (as necessary)
☐ Fire watch (as necessary)

Electrical
☐ GFI in use
☐ Three prong / double insulated tools
☐ Flexible cords in good condition
☐ Tools / Cords inspected before use

Excavations
☐ Miss Utility / locating service contacted
☐ Underground utilities visibly marked
☐ Properly Barricaded / covered
☐ Proper access / egress
☐ Ladders every 25'-0" distance
☐ Shored, sloped, benched as required
☐ Hazardous atmospheres tested (as necessary)
☐ Soil type determined
☐ Inspected by competent person
☐ Spoils/equipment 2 ft away
☐ Dewatering as needed

Ladders
☐ Inspected in good condition
☐ Correct pitch
☐ Extends 3'-0" above landing
☐ Opened, locked and secured / tied off
☐ Non-aluminum ladders used

Scaffolds
☐ Qualified Scaffold erector
☐ Guardrails, toe boards, and planking secured
☐ Appropriate signage provided
☐ Adequate cross bracing
☐ Scaffold training completed as required
☐ Free of debris
☐ Falling object protection in place
☐ Plumb/ level and on firm foundation
☐ Inspected as required per OSHA

Cranes
☐ Rated Load Capacity available in cab
☐ Swing Radius barricaded
☐ Appropriate certificates/decals/hand signals
☐ Daily inspection log completed
☐ Rigging inspected
☐ Electrical powerlines identified
☐ Ground condition reviewed
☐ Hazards below ground identified
☐ Fall Zone Monitored / identified

Fall Protection
☐ Fall protection plan available
☐ Harness / shock absorbing lanyard used
☐ Anchoring points adequate
☐ Perimeter barrier (as necessary)
☐ No holes observed
☐ 6'-0" Fall Protection utilized
☐ PFAS inspected
☐ Fall protection training completed

Paperwork
☐ SDS Information available
☐ Contractors Safety Policy provided & available
☐ Training Documentation as required

Other
☐ Drinking water provided
☐ CPR trained person on-site
☐ Trained operators utilizing equipment
☐ Working audible alarms on vehicles as required

Competent Person:

Print Name_____

SECTION 013300 – SUBMITTAL PROCEDURES

1. GENERAL PROVISIONS

   A. The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary and other Conditions, if any) and Division 1 as appropriate, apply to the Work specified in this Section.

2. ITEMS TO BE SUBMITTED AT START OF WORK

   A. Performance/Labor and Material Payment Bond(s): One (1) copy of each bond simultaneously with the signed Agreement. See General Conditions Article 11.4 and Supplementary Conditions.

   B. Policies or Certificates of Insurance: Two (2) copies simultaneously with the signed Agreement. See General Conditions Article 11 and Supplementary Conditions.

   C. Contractor's License: Submit a copy of all business licenses required by local and state agencies.

   D. Contractor's Schedule of Values: Two (2) copies for approval within 21 days after the Agreement is signed. See General Conditions Article 9.2 and provisions in this Section.

   E. Contractor's Progress Schedule: Two (2) copies for review and reference within 21 days after the Agreement is signed. See General Conditions Article 3.10 and provisions in this Section.

   F. Submittal Schedule: Two (2) copies for review and reference within 21 days after the Agreement is signed. See provisions in this Section.

   G. Products List: Two (2) copies for approval within 30 days after the Agreement is signed. See provisions in Section 016200 - MATERIAL AND EQUIPMENT.

3. NON-RESIDENT CONTRACTOR & SUBCONTRACTORS BONDS

   A. Refer to requirements in Section 011100 - INSTRUCTIONS TO BIDDERS for filing of Surety Bonds with the Division of Revenue.

   B. If such bonds are required on this project, it will be the responsibility of the Contractor to produce evidence to the Construction Manager that they have been filed, or if not required, to supply a notarized statement that they are not required. This must be done within seven (7) days after award of Contract and in any event before construction starts.

4. RELATED REQUIREMENTS

   A. See Section 017700 - CONTRACT CLOSE OUT: for submittal requirements for Contract Close out.

5. SUBMITTALS

A. All submittals shall be directed to the Construction Manager in the manner directed by the Construction Manager, and paragraph 9 of this section. Contractor shall use the Contractor Submittal Form appended to this section.

B. Prepare a Submittal's Schedule for Shop Drawings, Product Data and Samples. Show:

1. The dates for Contractor's submittals.

2. The dates submittals will be required for Owner-furnished products.

3. The date approved submittals will be required from the Architect.

C. Should the Architect or Construction Manager elect to omit any items from the list of items to be reviewed, it shall not relieve the Contractor from compliance with the Contract Documents with regard to that item. In such instance, the Contractor may still elect to have submittals prepared for his own use without review by the Architect or Construction Manager.

6. SHOP DRAWINGS

A. Conform to provisions in General Conditions applying to Shop Drawings.

B. Present in a clear and thorough manner.

1. Identify details by reference to sheet and details, schedule or room numbers shown on Contract Drawings.

2. Maximum sheet size: 30" x 42".

7. PRODUCT DATA

A. Conform to provisions in General Conditions applying to Product Data.

B. Preparation:

1. Clearly mark each copy to specifically identify products or models pertinent to project.

2. Show performance characteristics and capacities.

3. Show dimensions and clearances required.

4. Show wiring or piping diagrams and controls.

C. Manufacturer's standard schematic drawings and diagrams:

1. Modify drawings and diagrams to delete information which is not applicable to the Work.

2. Supplement standard information to provide information specifically applicable to the Work.

8. SAMPLES

A. Conform to provisions in General Conditions applying to Samples.

B. Provide samples of sufficient size and quantity to clearly illustrate:

1 .Functional characteristics of the project, with integrally related parts and attachment devices.

2. Full range of color, texture and pattern.

C. Field samples and mock-ups; See requirements, if any, in other specification Sections.

9. SUBMITTAL REQUIREMENTS

A. Make submittals promptly through the Construction Manager in accordance with published schedule, and in such sequence as to cause no delay in the Work or in the Work of any other contractor.

B. Number of submittals required.

1. Shop drawings: Submit eight (8) copies for each submittal. Copies will be marked up with corrections and comments, stamped and returned. Any additional copies required by the Contractor shall be made by him.

2. Product Data: Submit eight (8) copies. Four (4) will be retained by the Architect, the Construction Manager and the Consultants. Four (4) will be reviewed, marked and stamped by the Architect and returned to the Contractor by the Construction Manager. Any additional copies required by the Contractor shall be made by him from the stamped copy.

3. Samples: Submit four (4) each. When approved it will be returned to the Construction Manager to be retained at the site for reference use.

C. Submittals shall contain:

1. The date of submission and the dates of any previous submissions.

2. The Project title and number.

3. Contract identification.

4. The names of the Contractor, Supplier and Manufacturer.

5. Identification of the product, with the specification section number.

6. Field dimensions, clearly identified as such.

7. Relation to adjacent or critical features of the Work or materials.

8. Applicable standards, such as ASTM or Federal Specification numbers.

9. Identification of deviations from Contract Documents.

10. Identification of revisions on resubmittals.

11. An 8 inch x 3 inch blank space for Contractor and Architect's stamps.

12. Contractor's stamp, initialed or signed, certifying review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the Work and of Contract Documents. Submittals which have not been stamped with this stamp or its approved equivalent will be returned without being reviewed.

D. Shop Drawing coordination and interface with work of other Contracts and adjacent work is the responsibility of each individual Contractor.

E. All submittals shall be accompanied by the contractor's submittal form, a copy of which is part of this section. The contractor's submittal form must be completed in its entirety by the contractor.

10. RESUBMISSION REQUIREMENTS

A. Make any corrections or changes in the submittals required by the Architect and resubmit until approved.

B. Shop drawings and Product Data:

1. Revise initial drawings or data, and resubmit as specified for the initial submittal.

2. Indicate any changes which have been made other than those requested by the Architect.

C. Samples: Submit new samples as required for initial submittal.

11. FINAL DISTRIBUTION OF APPROVED SUBMITTALS

A. The Construction Manager will receive and log submittals and forward to Architect after processing.

B. The Construction Manager will distribute copies of Shop Drawings and Product Data which carry the Architect's stamp to:

1. Contractor that made submittal.
2. Jobsite File.
3. Record Document File.
4. Other Contractors, as required for coordination.

C. The Construction Manager will distribute samples as required.

D. The Contractor will distribute copies of Shop Drawings and Product Data which carry the Architect's stamp to:

1. Subcontractors.
2. Suppliers.
3. Fabricators.

12. SCHEDULE OF VALUES

A. Use AIA Document G703, Continuation Sheet to G702.

13. PROGRESS SCHEDULE

A. Prepare schedules in the form of a horizontal bar chart.

1. Provide separate horizontal bar chart for each trade or operation.
2. Horizontal time scale: Identify the first work day of each week.
3. Scale and spacing: To allow space for notations and future revisions.
4. Minimum sheet size 11 inches by 17 inches.

B. Format of listings: The chronological order of the start of each item of work.

C. Show the complete sequence of construction by activity.

D. Show the dates for the beginning, and completion of, each major element of construction such as:

1. Site clearing.
2. Site utilities.
3. Foundation work.

4. Structural framing.

5. Subcontractor work.

6. Equipment installation.

E. Show projected percentage of completion for each item as of the first day of each month.

F. Update Progress Schedule monthly and submit with Application for Payment and Schedule of values.

G. Indicate progress of each activity to date of submission.

H. Show changes occurring since previous submission of schedule:

1. Major changes in scope.

2. Activities modified since previous submission.

3. Revised projections of progress and completion.

4. Other identifiable changes.

I. Provide a narrative report as needed to define:

1. Problem areas, anticipated delays and the impact of the schedule.

2. Corrective action recommended, and its effect.

3. The effect of changes on schedules of other prime contractors.

J. Submit one reproducible transparency.

K. After review, distribute copies of the schedule to:

1. Jobsite File.

2. Subcontractors.

3. Architect.

4. Owner.

L. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by

the projections shown in the schedules.

END OF SECTION

EDiS COMPANY **CONTRACTOR SUBMITTAL FORM**

Contractor: **Contract #:**_____

Project Name: CSD William Penn Athletic Field Sitework

To:

The following submittal (s) for the Architect's Review and Approval:

[ ] Shop Drawings [ ] Product Data [ ] Samples [ ] Samples [ ] Other (Identify)_____

[ ] Design Data [ ] Calculations [ ] Certificates [ ] Coordination Drawings [ ] Reports

[ ] Qualification Statements [ ] Other (Identify)_____

No. of Copies	Date	Submittal Number	Spec. Section #	Description of Submittal Items	Requested Return Date	EDIS Submittal Number (by EDIS)

Deviations from Contract Documents requirements are identified as follows:_____
_____

Remarks:_____

We hereby certify that _____(Contractor)_____has reviewed and approved submittals transmitted herewith for compliance and conformance with requirements of the Contract Documents.

Signed:_____ **Date:**_____

PU09, Revised 5/11

SECTION 013500 – CONTRACTOR EMPLOYEE BACKGROUND CHECK

1. It is the Contractor's responsibility to perform background checks and screen all employees working onsite. The background check must include checking for a previous history of Child Abuse Convictions, Child Molestation Convictions, Felony Convictions, and Drug Convictions within the last 5 years. Any employee with any of these convictions may not enter the job site or school campus. This background check must be completed and screened by the contractor prior to an employee entering the job site. The background check cannot be any older than 1 year prior to the date of the contract between the Contractor and the Owner. The Construction Manager, the Owner's representative and the Owner have the right to request that the screening data be submitted on a case-by-case basis.

2. The contractor is required to provide the Construction Manager written notice verifying background checks were completed and screened by the contractor prior to an employee entering the job site. This notice will contain the individual's name and the last four digits of their social security numbers. Notices must be received no later than two (2) working days before access is required. Notices will be forwarded electronically to the Construction Manager. A sample notice follows this section for your reference.

END OF SECTION

Date

Warren Ellis
Project Manager
EDiS Company
110 South Poplar Street
Wilmington, DE 19805

RE: CSD William Penn High School - Certification of Background Checks

Dear _____:

This letter is to certify that background checks have been completed in accordance with Section 013500 Contractor Employee Background Check. The following individuals are certified as having met the requirements of the specification:

Name	Last 4 SSN
Mr. John Smith	1234

If you require any additional information you may contact INSERT POINT OF CONTACT, PHONE NUMBER AND EMAIL ADDRESS.

Sincerely,

Company

NAME
TITLE

SECTION 013523 - SAFETY PROGRAM

1. GENERAL

   A. The Contractor shall be responsible for initiating, maintaining, and supervising all safety activities and programs in connection with their Work.

   B. Contractor shall be responsible for the safety of their personnel as well as their subcontractors.

   C. Hard hats and safety glasses must be worn by all personnel on the jobsite, except in contractor's administrative office/trailer. All equipment must comply with OSHA standards. All job site personnel shall wear long pants, shirts (no tank tops), high visibility garments worn on the outer layer of clothing, and work boots.

2. SAFETY PROGRAM

   A. Prior to commencing the work, the Contractor shall submit to the Construction Manager (1) electronic copy and (1) bound copy of its safety program and one (1) copy of SDS information in a 2" ringed notebook. One paper copy of the safety program and SDS will be retained by the Construction Manager in the field office.

   B. The safety program shall outline those hazards peculiar to the Contractor's Work, and the steps to be taken to eliminate or reduce the risk of injury or loss due to those hazards. The program shall be project and site specific. Every Contractor shall implement and enforce its safety program, in accordance with all OSHA, Federal, State, and local laws.

   C. Crystalline Silica Exposure Control Plan - Affected Contractors must provide a Written Exposure Control Plan for Respirable Crystalline Silica, meeting Subpart Z of the OSHA Construction Industry Regulations, that ensures each employee covered by this section of the Regulations can demonstrate knowledge and understanding meeting the requirements of the regulation, identify the competent person designated by the employer in accordance with the section, and otherwise comply with the requirements of this section of the Regulations.

   D. Every Contractor shall designate a qualified Safety Supervisor and Alternate to implement the safety program. If during the progress of the work the Safety Supervisor is not performing their duties in a manner satisfactory to the Construction Manager the Contractor will designate a new qualified Safety Supervisor.

   E. Every Contractor shall furnish the names and qualifications of the Primary and Alternate competent persons and qualified persons who may be required for their scope of work by the Contractor's safety procedures, and by federal, state and/or local regulations. Examples include competent persons and/or qualified persons for steel erection, excavation, scaffold erection, confined space entry, crane and rigging operations, annual crane inspections, fall protection including horizontal lifeline systems, etc.

F. The employer shall verify compliance by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training and the signature of the person who conducted the training or the signature of the employer. If the employer relies on training conducted by another employer or completed prior to the effective date of this section, the certification record shall include the date the employer determined the prior training was adequate rather than the date of actual training.

G. Copies of any and all documents, including information stored electronically, such as safety and health program handbooks and training certification records shall be provided when necessary.

1. The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury. Please forward certification (document) of training for each employee on an EDiS project. The latest training certificate shall be maintained.

H. Contractor Daily Reports with Safety Inspection Checklist will be submitted daily to the Superintendent, verifying inspection of work area, machinery, equipment, and tools.

I. Prior to starting work on-site, the Contractor shall arrange with the on-site Superintendent to have their employees complete the EDiS Company Zero Accidents Safety Orientation program.

J. Every Contractor shall hold, at a minimum, weekly safety toolbox talks with all its employees every Monday at 12:30 PM. Every Contractor shall designate a responsible, qualified, and capable person to conduct these meetings. Contractor's safety supervisor or superintendent must submit to the Construction Manager weekly toolbox talks attendance sheets and the topics discussed.

3. SUBSTANCE ABUSE POLICY STATEMENT

A. The Construction Manager is committed to providing a safe work site environment for its employees and Contractors' employees. The Construction Manager does not condone or permit employees and Contractors' employees to use or be under the influence of drugs or alcohol while they are on any of the Construction Manager work sites. The Policy is as follows:

1. It is a violation of the Construction Manager's policy for employees and Contractors' employees to use, possess, sell, trade, or otherwise engage in the use of illegal drugs and alcohol.

2. It is a violation for employees and Contractors' employees to report to work while influenced by illegal drugs or alcohol.

3. It is a violation for employees and Contractors' employees to use prescription drugs illegally (i.e., to use prescription drugs that have not been legally obtained) and to use prescription drugs in a manner other than the prescribed intentions.

4. Employees and Contractors' employees who are taking medication, which is prescribed by their physician, are expected to discuss potential side effects with their prescribing physician, as it relates to the work requirements.

B. Violations of this policy will require disciplinary action. If any employees or Contractors' employees are observed or suspected of being influenced by drugs or alcohol, they will be instructed to stop work and may be required to leave the work site.

4. EXECUTION

A. Every Contractor shall comply with all applicable federal, state and local laws, regulations and orders relating to occupational safety and health, and related procedures, and shall, to the extent permitted by law, indemnify and hold Construction Manager, Owner and Architect, and their respective directors, officers, or agents and employees, harmless from any and all liability, public or private, penalties, contractual or otherwise, losses, damages, costs, attorney's fees, expenses, causes of action, claims or judgments resulting from a claim filed by anyone in connection with the aforementioned acts, or any rule, regulation or order promulgated thereunder, arising out of the Contractor's Work, this Agreement or any subcontract executed in prosecution of the Work. Every Contractor further agrees in the event of a claim of violation of any such laws, regulations, orders, or procedures arising out of or in any way connected with the performance of this agreement, Construction Manager may immediately take whatever action is deemed necessary by Owner and/or Construction Manager to remedy the claim or violation. Any and all costs or expenses paid or incurred by Owner and/or Construction Manager in taking such action shall be borne by the Contractor and may be deducted from any payments due Contractor.

B. The Contractor agrees to (1) take all necessary steps to promote safety and health on the job site; (2) cooperate with Owner and/or Construction Manager and other Contractors in preventing and eliminating safety and health hazards: (3) train, instruct and provide adequate supervision to ensure that its employees are aware of, and comply with, applicable Federal and State safety and health laws, standards, regulations and rules, safe healthful work practices and all applicable safety rules, regulations and work practices and procedures (4) not create any hazards or expose any of its employees, employees of the Owner and/or Construction Manager or employees of Contractors to any hazards; and (5) where the Contractor is aware of the existence of a hazard not within its control, notify the Construction Manager of the hazard as well as warn exposed persons to avoid the hazard.

C. The Contractor / Sub-contractor shall prepare a written Job Hazard Analysis (JHA) common to the construction industry for any work of a high risk nature. This JHA will be prepared and signed by each work crew each day prior to starting work on a specific area of work and any time a crew is re-assigned to a new work task. The JHA form is generally in table form and simply describes tasks to be performed, potential hazards and mitigating measures. The form is used to identify, analyze, understand and mitigate potential hazards associated with repetitive or potentially hazardous work operations. Each employee associated with the work to be performed shall be instructed by their companies designated Competent Person of the safety measures listed on the form and shall sign the document prior to the commencement of work.

(examples of "high risk": pre-cast concrete, scaffold activities, steel erection, work at heights, work at depths, road work, etc.) If the contractor prepares a similar assessment form it must be reviewed to meet the criteria of a Job Hazard Analysis (JHA) as described by the U.S. Department of Labor (OSHA 3071 2002 Revised).

D. The Contractor's Superintendent or Safety Supervisor shall immediately, verbally report, and promptly thereafter confirm in writing to the Construction Manager any unsafe conditions or practices that are observed, or violations of job safety which are not within the Contractor's control.

E. Contractors shall immediately, verbally report, and promptly thereafter confirm in writing, to the Construction Manager any unsafe practices or conditions that are observed which are not under the Contractor's control.

F. The Contractor's Superintendent or Safety Supervisor shall ensure that adequate first aid supplies are available, and that personnel are qualified to administer first aid/CPR, as required by State and/or Federal regulations.

G. Every Contractor shall promptly notify Construction Manager of any personal injury requiring medical treatment of any of the Contractor's employees at the Project site; or of significant damage to property arising in connection with Contractor's performance, as promptly as possible after the occurrence of such injury or damage. Within twenty-four hours of such occurrence, Contractor shall furnish to Construction Manager a complete written report of such injury or damage.

H. Contractor certifies that the forgoing terms shall be made applicable to all Contractors' subcontractors, suppliers, materialmen, or anyone furnishing labor and/or materials to the site.

I. Every Contractor shall continue to educate their job Safety Supervisor or Superintendent of their responsibilities, which shall include:

1. Instructing workers and subcontractors under its supervision in safe work practices and work methods at the time they are given work assignments.

2. Ensuring that its workers and subcontractors have and use the proper protective equipment and suitable tools for the job.

3. Continuously checking to see that no unsafe practices or conditions are allowed to exist on any part of his job.

4. Acquainting its workers and subcontractors with all applicable safety requirements and ensuring that they are enforced.

5. Setting a good example for their workers.

6. Making a complete investigation of incidents to determine facts necessary to take corrective action.

7. Promptly completing an "Incident Investigation Form" with his Supervisor's assistance and distributing as required.

8. Holding weekly "tool box" safety meetings with their employees to:

   a. Discuss observed unsafe work practices or conditions including a review of current foreman meeting and progress meeting reports.

   b. Review each incident with their employees and discuss correction of incident root causes.

   c. Encourage safety suggestions from his men.

9. Seeing that prompt medical treatment is administered to an injured employee.

10. Correcting or reporting immediately to project superintendent any observed unsafe conditions, practices or violations of job safety or security.

11. Making all reports required by these Contract Documents to the Construction Manager in a full and timely fashion.

5. SAFETY MEETINGS

A. The Contractor's Project Manager or Superintendent shall attend weekly or biweekly supervisory job meetings. The first topic of these meetings will be job site safety. The weekly safety reports will be reviewed, and violations must be corrected immediately. Contractors will be encouraged to participate in the on-going jobsite safety.

6. TOOL BOX SAFETY MEETINGS

A. The Contractor shall schedule weekly "tool box" safety sessions to be held by their project safety supervisor or competent person / superintendent for all their employees.

B. A member of the Contractor's management staff shall periodically attend "tool box" safety sessions to evaluate their effectiveness and offer any appropriate suggestions for improvement.

7. REPORTS

A. Contractors shall report all accidents or injuries on a timely basis in accordance with all applicable regulations.

B. Contractors shall promptly complete an incident investigation report of all incidents.

C. A record of all "tool box" safety sessions shall be made and submitted to the Construction Manager.

8. SAFETY REPRESENTATIVE

A. The Construction Manager (CM) may employ the services of a Safety Representative on the project.

B. The CM Safety Representative will visit the job site on a weekly basis, or as necessary, to determine if the work is being performed in a safe manner and in accordance with OSHA, State and Local safety regulations. The CM Safety Representative is not responsible for observing and documenting all possible safety violations. The Contractors' Safety Representatives, Safety Supervisors, or Superintendents shall attend job site safety inspections with the CM Safety Representative.

C. The CM Safety Representative will prepare a written report at the end of each inspection listing the safety violations observed during the inspection. This report will be distributed to all Contractors. Contractors will immediately correct all safety violations and provide written documentation to the CM verifying that all hazards have been corrected.

9. RIGHT TO STOP THE WORK DUE TO SAFETY VIOLATIONS

A. The Construction Manager, in its sole discretion, may order the Contractor to stop the work due to safety violations under the following circumstances:

1. If the Construction Manager observes the Contractor is violating safety regulations and the Contractor takes no immediate action to correct the violation.

2. If the Contractor has been notified by the Construction Manager in writing that he is in violation of safety regulations and fails to take action to correct the violation within 24 hours of the notice.

B. If the Construction Manager directs the Contractor to stop the work due to safety violation, it will be done in accordance with the General Conditions of the Contract. Contractor shall not be permitted an adjustment of the Contract Time or Sum for the days lost to any suspension of work.

C. If the Construction Manager or Safety Representative observes Contractor's employee violating this safety program or OSHA Standards in a habitual manner, or creating a serious life safety violation, the Construction Manager or Safety Representative may instruct the Contractor's superintendent or foreman to remove the violator from the work site for failure to comply with the safety program and the contract.

10. EMERGENCY PROCEDURES

A. The Construction Manager shall establish a central meeting location for the assembly of all Contractors' employees in the event of a job site emergency.

B. Contractors shall assemble all their personnel and account for all employees. Contractors must immediately report to the Project Superintendent with the status of their employees.

11. FALL PROTECTION PROCEDURES

A. Contractors are responsible, in accordance with federal, state, local laws and regulations including OSHA. to provide and enforce their own site specific fall protection program and equipment. The following fall protection procedures shall be enforced by all Contractors as a minimum standard.

1. All workers on walking/working surfaces with unprotected sides or edges six feet (6') or higher above the next lower level must be protected from falls by the use of guardrail systems, net systems, fall arrest systems or control access zone programs. It is intended that when fall protection is required, it is required 100% of the time. All contractors are reminded that relevant industry regulations require that contractors comply with the following standards.

a. Workers constructing or working near leading edges must be protected.

b. Workers on the face of formwork or reinforcing steel must be protected at a height of 6 feet (6') or greater.

c. Employees working from scaffolds shall be guarded / protected from falling 6 feet (6') above next lower level.

d. Brick layers performing overhand bricklaying and related work six feet (6') or higher above lower levels must be protected from falls.

e. Roofers must comply with OSHA regulations for roof work.

f. The Contractor's controlled access zone plan shall be included in their site-specific safety program and shall be submitted prior to the start of work. Contractors are responsible for assuring programs are OSHA compliant.

g. Guidelines for Residential Construction or any interpretations will not be accepted in lieu of 1926 Standards.

h. Contractors must provide certification per OSHA CFR29 § 1926.503(b) of employee training and retraining on fall protection upon request.

B. Contractor shall provide their own fall protection. Fall protection may be provided by guardrail systems, net systems, or personal fall arrest systems. All fall protection systems must comply with OSHA regulations.

C. Stepladders, exposed to shafts or edges of the building, greater than six feet (6') above the next lower level, must be tied off or otherwise secured. Employee must wear fall protection, i.e., harness/lanyard.

D. The Safety Cable System shall not be altered or removed without a written request submitted to the Project Manager with a copy to the Superintendent. It shall be the responsibility of each Contractor that is removing or altering the Safety Cable System to maintain the fall protection safety provided by the safety cable and not leave the area unprotected. Each Contractor shall be responsible to re-install the Safety Cable System immediately after work is completed. Each Contractor shall be responsible to re-install the Safety Cable System in accordance with OSHA regulations.

E. Fall protection will be enforced for Structural Steel Erectors.

1. Contractors engaged in structural steel erection are specifically advised that structural steel erectors shall comply with all protection requirements for all work at a height of six feet (6′) or greater above the next lower level, 100 percent of the time, by any of the following means.

a. Standard guardrail system.

b. Personal Fall Arrest System (PFAS) – full body harness with shock absorbing lanyard. PFAS must meet the requirements of CFR 1926 subpart M.

c. Access to work area shall be provided by ladders or other safe methods. There shall be sufficient number of ladders, or other safe methods, available to reduce the amount of "beam walking." When it is absolutely necessary to traverse a beam, 100% fall protection must be utilized.

d. Steel erection Contractors must, at all times, be able to certify in writing that each of their employees have been properly trained in both OSHA fall protection standards and the Contractor's site specific project fall protection procedures.

e. Prior to the erection of the steel, the Contractor shall meet with the Project Manager and Safety Representatives to review and document site specific procedures.

12. AIRBORNE CONTAMINENTS PROCEDURES

A. Contractors must provide and use equipment furnished with Exhaust Purifiers / Scrubbers when any equipment produces airborne containments and will be used in an enclosed building.

B. The Contractor shall verify air quality by the use of air monitoring equipment and document such verified air quality on the daily report. The monitoring equipment shall, at a minimum, be designed with an auditory alarm and shall provide continuous monitoring of these four gases: Oxygen, Hydrogen Sulfide, Carbon Monoxide and Combustible gases.

C. The Contractor must provide administrative or engineering controls to protect its workers from exposure to occupational health, environmental or other hazards to be implemented whenever feasible. When such controls are not feasible to achieve full compliance, protective equipment or

other protective measures shall be used to keep the exposure of employees to air contaminants within the limits prescribed by local, state, and federal regulations. Any equipment and technical measures used for this purpose must first be approved for each particular use by a competent industrial hygienist or other technically qualified person. Whenever respirators are used, their use shall comply with 1926.103.

13. CELL PHONE AND RADIO USE POLICY

A. Use of cell phones on EDiS Company projects should be limited to non-construction type activity areas and away from active construction areas (i.e., project office). This includes both cell phone use and the review of data, information, texts, and the internet. Except in an emergency circumstance, phones should only be used in the designated areas. Anyone observed using a cell phone outside of these designated areas without regard to maintaining a safe focus on their surroundings can be subject to discipline, up to and including removal from the project. Use of ear buds, ear phones, and portable radios are absolutely prohibited on EDiS Company project sites. Anyone using ear buds, ear phones, or any other device that would prevent the wearer from receiving auditory cues about the surrounding environment will be subject to discipline, up to and including removal from the project.

14. EXCAVATION PROCEDURES

A. Before ANY excavation work is to commence, the Contractor/Excavator shall contact the utility companies or utility owners and advise them of the proposed work and ask them to mark the location of the underground utility installations. This notification shall be done within established or customary local response times. If the work is on private property and the utility company will not mark out the utilities, the Contractor/Excavator will hire a private locating service to mark the utilities. Once the utilities are located and marked, the Contractor/Excavator will excavate by hand or use a vacuum truck to expose the utilities and record the exact location and elevation of the utilities.

B. The Contractor/Excavator must submit the Excavation Permit to EDiS Company verifying their assurance of communication with the utility companies or utility owners. The Contractor/Excavator must follow State, Local, and Federal Guidelines prior to proceeding with excavations. The Contractor/Excavator will have these marks restored as long as there is work to perform.

C. Once the Contractor has installed new utilities, they will provide to EDiS Company an as-built drawing, within 7 days, showing the exact location and elevation of the utilities. The installing Contractor will be responsible for locating and marking these utilities for other contractors that may have work in the same area.

D. Definition: "Excavator" shall mean any person, including those acting either as an employer or employee, intending to perform or performing excavation or demolition work.

E. Definition: "Excavate" or "Excavation" shall mean any operation in which earth, rock or other material in the ground is moved, removed, or otherwise displaced or disturbed by means of any

tools, equipment or explosives and includes, without limitation, grading, trenching, digging, dredging, ditching, drilling, auguring, tunneling, boring, backfilling, post pounding, driving objects into the ground, installation of form pins, hammering, scraping, cable or pipe plowing or driving.

15. TRAFFIC CONTROL PROCEDURES: Manual on Uniform Traffic Control Devices (MUTCD)

A. Traffic control plan(s) for the work may be required by the Authorities Having Jurisdiction (AHJ). Traffic control plans, if required, shall be prepared per AHJ standards, at the Contractor's expense, for review and approval by the AHJ. (Note: anything on a public right of way controlled by the state will require an engineer's stamp.) The implementation of the traffic control plan and any associated maintenance shall be performed at the Contractor's expense in accordance with the requirements of the AHJ. All warning signs and safety devices used by the Contractor to perform the work shall conform to the requirements contained in the State where the work is being performed, and the Department of Transportation's current edition of "Manual on Uniform Traffic Control Devices". The Contractor shall also be responsible for all traffic control required by the AHJ over the Project on the intersecting streets.

B. Contractors must submit a traffic control plan to the AHJ over the project for approval within fourteen (14) calendar days of Contract award. The approved traffic plan must be submitted prior to the commencement of work in a public street. The Contractor's representative on the site responsible for traffic control shall produce evidence that he/she has completed training acceptable to the Department of Transportation for safety through construction zones. All of the streets in which the work will occur shall remain open to traffic and one lane of traffic maintained at all times unless otherwise directed by the AHJ. Businesses and residences adjacent to the work shall be notified forty- eight (48) hours in advance of closing of streets, roadways, driveways, etc. The Contractor shall make every effort to minimize the amount of public parking temporarily eliminated due to construction in areas fronting businesses. No stockpiles of pipe or other material will be allowed in traveled right-of- ways unless otherwise approved. These requirements shall not authorize any extension of time for performance of this Contract.

16. SCAFFOLDING PROCEDURES

A. A written project specific scaffold inspection checklist must be completed by the Contractor's competent person responsible for inspecting the scaffolding before each work shift, and after any occurrence which could affect a scaffold's structural integrity. A copy of the documented scaffold inspection checklist must be maintained by each company performing work on a scaffold and a second copy provided for record to the EDiS project office.

B. Contractors are required to ensure that all employees working on or around scaffolding are properly trained. Contractors shall provide documented verification of scaffold training upon request.

C. Scaffold erectors and dismantlers are required to wear fall protection during the erecting, modifying and dismantling scaffolds. In cases where fall protection is infeasible or creates a

greater hazard, the competent person shall document their decision at each specific location of scaffold assembly. At minimum, the scaffold erectors and dismantlers shall wear a fall protection harness during the erection, modification and dismantling of scaffolds.

D. Contractors shall utilize a scaffold tag system. The scaffold tag system shall be color coded and visible. The competent person shall sign and date the scaffold tag.

1. Green tags are reserved for complete systems.
2. Red tags are reserved for erection/dismantling activities and for scaffolds with deficiencies in the system.

3. Yellow tags are reserved for systems that require the use of both PFAS and guardrail systems for incomplete scaffold systems or platforms.

END OF SECTION

CONTRACTOR

COMPETENT / QUALIFIED PERSON DESIGNATION LOG

Project: CSD William Penn High School **Field Manager:**

Contract: Contractor:	Applicable to Subcontractor (yes / no)		Foreman	Competent Person (if not foreman)
Subpart C-General Provisions				
1926-20 General Safety				
Subpart D - Health and Environmental Controls				
1926-53 Ionizing Radiation				
1926-55 Gases, Vapors, Fumes, Dusts, Mists				
1926-57 Ventilation				
1926.59 Hazard Communication				
1926.62 Lead				
Subpart E - Personal Protective Equipment				
1926.101 Hearing				
1926.103 Respirator Protection				
Subpart H - Materials Handling, Storage				
1926.251 Rigging Equipment for Material Handling				
Subpart J - Welding and Cutting				
1926.354 Welding, Cutting and Heating				
Subpart K - Electrical				
1926.404 Wiring Design and Protection				
Subpart L - Scaffolding				
1926.451 Scaffolding				
Subpart M - Fall Protection				
1926.502 Fall Protection Criteria and Practices				
1926.503 Training				
Subpart N - Cranes, Derrick -Redesignated 1926.1501				
Subpart O - Motor Vehicles and Equipment				
1926.601 Motor Vehicles				
Subpart P - Excavations				
1926.651 Specific Excavation Requirements				
1926.652 Requirements to Protective Systems				
Subpart S - Tunnels, Shafts, Caissons				
1926.800 Tunnels, Shafts, Caissons				
1926.803 Compressed Air				
Subpart T - Demolition				
1926.850 Preparatory Operations				
1926.852 Chutes				
1926.859 Mechanical Demolition				
Subpart V - Power Transmission and Distribution				
1926.955 Overhead Lines				

Contract: Contractor:	Applicable to Subcontractor (yes / no)		Foreman	Competent Person (if not foreman)
Subpart X - Stairways and Ladders				
1926.1053 Ladders				
1926.1060 Training Requirements				
Subpart Z - Toxic and Hazardous Substances				
1926.1101 Asbestos				
1926.1101 thru 1926.1148 Toxic and Hazardous Substances				

I certify that the listed employees are competent persons, as defined and required by specific OSHA standards. They are capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Name (print)

Contractor Signature

Date

PU19, Revised 07/2021

SAFETY FORM:

EDiS Required Training Certifications

1.OSHA 10 or 30 Hour (if available)

2. First Aid / CFR 1926.50 (c)

3. Fall Protection Training / CFR 1926.503

4. Scaffold Training / CFR 1926.454 (a) (includes Aerial lifts and scissor lifts)

5. Rigger / CFR 1926.1425 (c)(3)

6. Signal person qualifications. CFR 1926.1428(a)(3)

7. Crane Operator qualification and certification. CFR 1926.1427

8. Competent person / CFR 1926.20 (b)(2)

9. Equipment operators / CFR 1926.20 (b)(4)
    - Lull
    - Fork lift
    - Cranes
    - Articulating cranes (such as knuckle-boom cranes), etc…

10. SDS Sheets on site

11. Contractor Safety Policy

If you should have any questions or concerns please contact Jim Ruggerio at (302)893-4973 or jruggerio@ediscompany.com

SAFETY FORM:

Job Hazard Analysis

Job:	(Company name and address)
Department or location:	

Task or Step	Hazards	Controls	Personal Protective Equipment (PPE)

JHA by:	
Date:	

Instructions:

Use this basic form “as is” to identify hazards, controls, and PPE at the job task (or step) level. You can modify the form to meet any additional needs of your workplace. JHA hazard information can be used to develop separate safe work procedures for employee use.

Job: You need to first select a job (or main activity) to observe and analyze.

Tasks or Steps: List tasks or steps that are part of the job you selected in the “Task” column.

Example: “Operating a table saw” would be the job while “Installing a blade” and “Ripping” would be separate tasks.

Hazards: Note any condition in the workplace that can potentially cause occupational injury, death, or disease. Assume that no personal protective equipment is being worn- even if it is because hazards could persist if PPE isn’t used. You may choose to add detail about how injuries could occur due to the hazard.

Examples of hazards include: working at heights, slippery surfaces, exposed moving machinery parts, fire, explosion, noise, electricity, toxic emissions, corrosive chemicals, low oxygen, repetitive tasks, heavy lifting, infectious Bloodborne pathogens, assault, and homicide.

Examples of how injuries can occur: work at height can result in falls that can result in broken bones, paralysis, or death; noise exposure can cause permanent and severe ringing in the ears and hearing loss; exposure to corrosive chemicals can cause permanent skin damage and blindness; and working in low oxygen areas can lead to sudden suffocation, unconsciousness, and death.

Controls: Note how you will eliminate or minimize the hazard. This doesn’t include PPE.

Examples of controls include: Using a safer tool or equipment or chemical, adding safeguards to machinery, using safer work practices, using local exhaust ventilation for toxic emissions, and enclosing noisy equipment or moving workers away from such equipment to reduce exposure levels.

PPE (Personal Protective Equipment): Detail what type of PPE is needed for each hazard that can’t be eliminated or minimized using controls.

SECTION 014219
REFERENCE STANDARDS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Requirements relating to referenced standards.

B. Reference standards full title and edition date.

1.02 RELATED REQUIREMENTS

A. Document 007200 - General Conditions: Reference standards.

1.03 QUALITY ASSURANCE

A. For products or workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Should specified reference standards conflict with Contract Documents, request clarification from the Architect before proceeding.

C. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the Architect shall be altered by Contract Documents by mention or inference otherwise in any reference document.

PART 2 CONSTRUCTION INDUSTRY ORGANIZATION DOCUMENTS

2.01 INDUSTRY ORGANIZATIONS: WHERE ABBREVIATIONS AND ACRONYMS ARE USED IN SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, THEY ARE TO MEAN THE RECOGNIZED NAME OF THE ENTITIES INDICATED IN GALE'S "ENCYCLOPEDIA OF ASSOCIATIONS: NATIONAL ORGANIZATIONS OF THE U.S." OR IN COLUMBIA BOOKS' "NATIONAL TRADE & PROFESSIONAL ASSOCIATIONS OF THE UNITED STATES."

A. Referenced Industry Standards:
1. AA -- ALUMINUM ASSOCIATION, INC.
2. AABC -- ASSOCIATED AIR BALANCE COUNCIL
3. AAMA -- AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION
4. AASHTO -- AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
5. AATCC -- AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS
6. ABC -- American Bird Conservancy
7. ABMA -- AMERICAN BEARING MANUFACTURERS ASSOCIATION, INC.
8. ACA -- AMERICAN COATINGS ASSOCIATION
9. ACG -- AABC COMMISSIONING GROUP
10. ACGIH -- AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS
11. ACI -- AMERICAN CONCRETE INSTITUTE INTERNATIONAL
12. ACMA -- AMERICAN COMPOSITES MANUFACTURERS ASSOCIATION
13. ACT
14. ADC -- AIR DIFFUSION COUNCIL
15. AEIC -- ASSOCIATION OF EDISON ILLUMINATING COMPANIES
16. AERC -- ATTACHMENTS ENERGY RATING COUNCIL
17. AFNOR - Association Francaise de Normalisation
18. AFPA -- AMERICAN FOREST AND PAPER ASSOCIATION
19. AGA -- AMERICAN GALVANIZERS ASSOCIATION, INC.
20. AGC -- ASSOCIATED GENERAL CONTRACTORS OF AMERICA
21. AGMA -- AMERICAN GEAR MANUFACTURERS ASSOCIATION
22. AHA -- AMERICAN HARDBOARD ASSOCIATION
23. AHAM -- ASSOCIATION OF HOME APPLIANCE MANUFACTURERS:

24. AHRI -- AIR-CONDITIONING, HEATING, AND REFRIGERATION INSTITUTE
25. AI -- THE ASPHALT INSTITUTE
26. AIA -- THE AMERICAN INSTITUTE OF ARCHITECTS
27. AICPA -- AMERICAN INSTITUTE OF CPAS
28. AISC -- AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC.
29. AISI -- AMERICAN IRON AND STEEL INSTITUTE
30. AIST -- ASSOCIATION FOR IRON AND STEEL TECHNOLOGY
31. AITC -- AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
32. ALI -- AMERICAN LADDER INSTITUTE
33. ALSC -- AMERICAN LUMBER STANDARDS COMMITTEE
34. AMCA -- AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC.
35. ANSI -- AMERICAN NATIONAL STANDARDS INSTITUTE
36. AOSA -- ASSOCIATION OF OFFICIAL SEED ANALYSTS
37. APA -- APA - THE ENGINEERED WOOD ASSOCIATION
38. APHA -- AMERICAN PUBLIC HEALTH ASSOCIATION
39. API -- AMERICAN PETROLEUM INSTITUTE
40. API -- ALLIANCE FOR THE POLYURETHANES INDUSTRY, AMERICAN PLASTICS COUNCIL
41. APSP -- ASSOCIATION OF POOL & SPA PROFESSIONALS
42. ARI -- AIR-CONDITIONING AND REFRIGERATION INSTITUTE (See AHRI)
43. ARPM - ASSOCIATION FOR RUBBER PRODUCTS MANUFACTURERS
44. ARRA -- ASPHALT RECYCLING AND RECLAIMING ASSOCIATION
45. ASA -- ACOUSTICAL SOCIETY OF AMERICA
46. ASCA -- ARCHITECTURAL SPRAY COATERS ASSOCIATION
47. ASCE -- AMERICAN SOCIETY OF CIVIL ENGINEERS
48. ASHE -- AMERICAN SOCIETY FOR HEALTH CARE ENGINEERING (AMERICAN HOSPITAL ASSOCIATION)
49. ASHRAE -- AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.
50. ASME -- THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
51. ASPA -- AMERICAN SOD PRODUCERS ASSOCIATION (see Turfgrass Producers International)
52. ASPE -- AMERICAN SOCIETY OF PLUMBING ENGINEERS
53. ASSE -- AMERICAN SOCIETY OF SANITARY ENGINEERING
54. ASTM A Series -- ASTM INTERNATIONAL
55. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
56. ASTM B Series -- ASTM INTERNATIONAL
57. ASTM C Series -- ASTM INTERNATIONAL
58. ASTM D Series -- ASTM INTERNATIONAL
59. ASTM F Series -- ASTM INTERNATIONAL
60. ASTM G Series -- ASTM INTERNATIONAL
61. ASTM SYMPOSIA AND SELECTED TECHNICAL PAPERS -- ASTM INTERNATIONAL
62. AWC -- AMERICAN WOOD COUNCIL
63. AWCI -- ASSOCIATION OF THE WALL AND CEILING INDUSTRIES INTERNATIONAL
64. AWI -- ARCHITECTURAL WOODWORK INSTITUTE
65. AWI/AWMAC/WI -- JOINT PUBLICATION OF ARCHITECTURAL WOODWORK INSTITUTE/ARCHITECTURAL WOODWORK MANUFACTURERS ASSOCIATION OF CANADA/WOODWORK INSTITUTE
66. AWMAC -- ARCHITECTURAL WOODWORK MANUFACTURERS ASSOCIATION OF CANADA
67. AWMAC/WI -- JOINT PUBLICATION OF ARCHITECTURAL WOODWORK MANUFACTURERS ASSOCIATION OF CANADA/WOODWORK INSTITUTE

68. AWPA -- AMERICAN WOOD-PRESERVERS' ASSOCIATION
69. AWPA U1 - Use Category System: User Specification for Treated Wood; 2025.
70. AWPB -- AMERICAN WOOD PRESERVERS BUREAU
71. AWS -- AMERICAN WELDING SOCIETY
72. AWWA -- AMERICAN WATER WORKS ASSOCIATION
73. BAAQMD -- BAY AREA AIR QUALITY MANAGEMENT DISTRICT
74. BHMA -- BUILDERS HARDWARE MANUFACTURERS ASSOCIATION
75. BIA -- BRICK INDUSTRY ASSOCIATION
76. BICSI -- BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL
77. BIFMA -- BUSINESS AND INSTITUTIONAL FURNITURE MANUFACTURERS ASSOCIATION
78. BOMA -- BUILDING OWNERS AND MANAGERS ASSOCIATION
79. BSI -- BRITISH STANDARDS INSTITUTION
80. Bluetooth CS - Bluetooth Core Specification;2016, Addendum 2017.
81. C2C -- CRADLE TO CRADLE PRODUCTS INNOVATION INSTITUTE
82. CABO -- COUNCIL OF AMERICAN BUILDING OFFICIALS:
83. CAGI -- COMPRESSED AIR AND GAS INSTITUTE
84. CAN -- STANDARDS COUNCIL OF CANADA (NATIONAL STANDARDS OF CANADA)
85. CBMA -- CERTIFIED BALLAST MANUFACTURERS ASSOCIATION
86. CDA -- COPPER DEVELOPMENT ASSOCIATION, INC.
87. CEA -- CONSUMER ELECTRONICS ASSOCIATION
88. CEN -- COMITÉ EUROPÉEN DE NORMIALISATION (EUROPEAN COMMITTEE FOR STANDARDS)
89. CENELEC -- COMITÉ EUROPÉEN DE NORMIALISATION ELECTROTECHNIQUE (EUROPEAN ELECTROTECHNICAL COMMITTEE FOR STANDARDIZATION)
90. CFSEI - COLD-FORMED STEEL ENGINEERS INSTITUTE
91. CGA -- CANADIAN GAS ASSOCIATION
92. CGA -- COMPRESSED GAS ASSOCIATION
93. CGSB -- CANADIAN GENERAL STANDARDS BOARD
94. CHPS -- COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS
95. CiA SSG - CANopen Specifications, Standards and Guidelines;Current Edition.
96. CISCA -- CEILINGS & INTERIOR SYSTEMS CONSTRUCTION ASSOCIATION
97. CISPI -- CAST IRON SOIL PIPE INSTITUTE
98. CLFMI -- CHAIN LINK FENCE MANUFACTURERS INSTITUTE
99. CONSENSUSDOCS -- CONSENSUSDOCS, LLC
100. CPA -- COMPOSITE PANEL ASSOCIATION
101. CRI -- CARPET AND RUG INSTITUTE
102. CRRC -- COOL ROOF RATING COUNCIL
103. CRSI -- CONCRETE REINFORCING STEEL INSTITUTE
104. CSA -- CSA GROUP (FORMERLY CSA INTERNATIONAL)
105. CSFM -- CALIFORNIA STATE FIRE MARSHAL
106. CSI/CSC -- CONSTRUCTION SPECIFICATIONS INSTITUTE/CONSTRUCTION SPECIFICATIONS CANADA
107. CSSB -- CEDAR SHAKE AND SHINGLE BUREAU
108. CTA -- CONSUMER TECHNOLOGY ASSOCIATION (FORMERLY CONSUMER ELECTRONICS ASSOCIATION)
109. CTI -- CERAMIC TILE INSTITUTE
110. CTI -- COOLING TECHNOLOGY INSTITUTE
111. DASMA -- DOOR & ACCESS SYSTEMS MANUFACTURERS' ASSOCIATION, INTERNATIONAL
112. DBIA -- THE DESIGN BUILD INSTITUTE OF AMERICA, INC.
113. DFI -- DEEP FOUNDATION INSTITUTE
114. DHI -- DOOR AND HARDWARE INSTITUTE

115. DIPRA - DUCTILE IRON PIPE RESEARCH ASSOCIATION
116. DOCSIS -- DATA-OVER-CABLE SERVICE INTERFACE SPECIFICATIONS
117. EC -- EUROPEAN COMMISSION
118. ECHA -- EUROPEAN CHEMICALS AGENCY
119. EIA -- ELECTRONIC INDUSTRIES ALLIANCE
120. EIA -- ENVIRONMENTAL INDUSTRY ASSOCIATION
121. EIMA -- EXTERIOR INSULATION MANUFACTURERS ASSOCIATION
122. EJCDC -- ENGINEERS' JOINT CONTRACT DOCUMENTS COMMITTEE
123. EJMA -- EXPANSION JOINT MANUFACTURERS ASSOCIATION
124. ETG -- ETHERCAT TECHNOLOGY GROUP
125. ETL -- ETL TESTING LABORATORY
126. FieldComm Group (FFTS) - Foundation Fieldbus Technical Specifications;2014.
127. FM -- FACTORY MUTUAL GLOBAL
128. GA -- GYPSUM ASSOCIATION
129. GANA -- GLASS ASSOCIATION OF NORTH AMERICA
130. GEI -- GREENGUARD ENVIRONMENTAL INSTITUTE
131. GREEN GLOBES -- GREEN BUILDING INITIATIVE
132. GREENSEAL -- GREENSEAL, INC.
133. GREENSCREEN -- CLEAN PRODUCTION ACTION
134. GRI -- GEOSYNTHETIC RESEARCH INSTITUTE
135. HI -- HYDRAULIC INSTITUTE
136. HI -- THE HYDRONICS INSTITUTE (See AHRI)
137. HPDC -- HEALTH PRODUCT DECLARATION COLLABORATIVE
138. HPVA -- HARDWOOD PLYWOOD VENEER ASSOCIATION
139. HPW -- H.P. WHITE LABORATORY, INC.
140. IAAF -- INTERNATIONAL AMATEUR ATHLETIC FEDERATION
141. IAPMO -- INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS
142. IAS -- INTERNATIONAL ACCREDITATION SERVICE
143. ICBO -- INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
144. ICBO-ES -- ICBO EVALUATION SERVICE, INC.
145. ICC -- INTERNATIONAL CODE COUNCIL, INC.
146. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
147. ICC-ES -- ICC EVALUATION SERVICE, INC.
148. ICEA -- INSULATED CABLE ENGINEERS ASSOCIATION
149. ICPI -- INTERLOCKING CONCRETE PAVEMENT INSTITUTE
150. ICRI -- INTERNATIONAL CONCRETE REPAIR INSTITUTE
151. IEC -- INTERNATIONAL ELECTROTECHNICAL COMMISSION
152. IEEE -- INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
153. IES/IESNA -- ILLUMINATING ENGINEERING SOCIETY
154. IEST -- Institue of Environmental Sciences and Technology
155. IETF -- INTERNET ENGINEERING TASK FORCE
156. IGMA -- INSULATING GLASS MANUFACTURERS ALLIANCE
157. IGS -- INTERNATIONAL GEOSYNTHETICS SOCIETY
158. IGSHPA -- INTERNATIONAL GROUND SOURCE HEAT PUMP ASSOCIATION
159. IIAR -- INTERNATIONAL INSTITUTE OF AMMONIA REFRIGERATION
160. ILFI -- INTERNATIONAL LIVING FUTURE INSTITUTE
161. ILI -- INDIANA LIMESTONE INSTITUTE OF AMERICA, INC.
162. IMIAWC -- INTERNATIONAL MASONRY INDUSTRY ALL-WEATHER COUNCIL
163. ISA -- INSTRUMENT SOCIETY OF AMERICA
164. ISDI -- INSULATED STEEL DOOR INSTITUTE
165. ISFA - INTERNATIONAL SURFACE FABRICATORS ASSOCIATION
166. ISS -- IRON AND STEEL SOCIETY

167. ISSFA - INTERNATIONAL SOLID SURFACE FABRICATORS ASSOCIATION
168. ISO -- INTERNATIONAL STANDARDS ORGANIZATION
169. ITS -- INTERTEK TESTING SERVICES NA, INC.
170. ITU-T -- International Telecommunications Union -Telecommunication Standardization Sector
171. IWBI -- INTERNATIONAL WELL BUILDING INSTITUTE
172. KCMA -- KITCHEN CABINET MANUFACTURERS ASSOCIATION
173. LIA -- LEAD INDUSTRIES ASSOCIATION, INC.
174. LONMARK -- LONMARK INTERNATIONAL
175. LPI -- LIGHTNING PROTECTION INSTITUTE
176. MBMA -- METAL BUILDING MANUFACTURERS ASSOCIATION
177. M-H -- MCGRAW-HILL BOOK COMPANY
178. MFMA -- MAPLE FLOORING MANUFACTURERS ASSOCIATION
179. MFMA -- METAL FRAMING MANUFACTURERS ASSOCIATION
180. ML/SFA -- METAL LATH/STEEL FRAMING ASSOCIATION - See NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS
181. MODBUS ORGANIZATION
182. MPI -- MASTER PAINTERS INSTITUTE (MASTER PAINTERS AND DECORATORS ASSOCIATION)
183. MMSA -- MATERIALS AND METHODS STANDARDS ASSOCIATION
184. MSS -- MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY, INC.
185. NAA -- NATIONAL ARBORIST ASSOCIATION
186. NAAMM -- THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS
187. NACE -- NACE INTERNATIONAL
188. NADCA -- NATIONAL AIR DUCT CLEANING ASSOCIATION
189. NAGDM -- NATIONAL ASSOCIATION OF GARAGE DOOR MANUFACTURERS
190. NAMM -- NATIONAL ASSOCIATION OF MIRROR MANUFACTURERS
191. NASSPA -- NORTH AMERICAN STEEL SHEET PILE ASSOCIATION
192. NBBI -- THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS
193. NBGQA -- NATIONAL BUILDING GRANITE QUARRIES ASSOCIATION, INC.
194. NBI -- NEW BUILDINGS INSTITUTE
195. NCAA -- NATIONAL COLLEGIATE ATHLETIC ASSOCIATION
196. NCMA -- NATIONAL CONCRETE MASONRY ASSOCIATION
197. NCWPB - NATIONAL CERTIFIED PIPE WELDING BUREAU
198. NCRP -- NATIONAL COUNCIL ON RADIATION PROTECTION AND MEASUREMENTS
199. NEBB -- NATIONAL ENVIRONMENTAL BALANCING BUREAU
200. NECA -- NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION
201. NEII -- NATIONAL ELEVATOR INDUSTRY, INC.
202. NELMA -- NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION, INC.
203. NEMA -- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
204. NETA -- INTERNATIONAL ELECTRICAL TESTING ASSOCIATION
205. NFHS -- NATIONAL FEDERATION OF STATE HIGH SCHOOL ASSOCIATIONS:
206. NFPA -- NATIONAL FIRE PROTECTION ASSOCIATION
207. NFRC -- NATIONAL FENESTRATION RATING COUNCIL, INC.
208. NGA -- National Glass Association
209. NHLA -- NATIONAL HARDWOOD LUMBER ASSOCIATION
210. NLA -- NATIONAL LIME ASSOCIATION
211. NLGA -- NATIONAL LUMBER GRADES AUTHORITY (CANADA)
212. NOFMA -- NATIONAL OAK FLOORING MANUFACTURERS ASSOCIATION
213. NPA -- NATIONAL PARTICLEBOARD ASSOCIATION
214. NPCA -- NATIONAL PAINT AND COATINGS ASSOCIATION

215. NRCA -- NATIONAL ROOFING CONTRACTORS ASSOCIATION
216. NRMCA -- NATIONAL READY MIXED CONCRETE ASSOCIATION
217. NSI -- NATURAL STONE INSTITUTE
218. NSPI -- NATIONAL SPA AND POOL INSTITUTE
219. NSSA - National Storm Shelter Association
220. NSWMA -- NATIONAL SOLID WASTES MANAGEMENT ASSOCIATION
221. NTMA -- NATIONAL TERRAZZO AND MOSAIC ASSOCIATION, INC., THE
222. NTMA -- NATIONAL TILE AND MARBLE ASSOCIATION
223. NWFA -- NATIONAL WOOD FLOORING ASSOCIATION
224. NWWDA -- NATIONAL WOOD WINDOW AND DOOR ASSOCIATION (name changed to WDMA)
225. ODVA -- OPEN DEVICENET VENDOR ASSOCIATION, INC.
226. OEKO-TEX -- OEKO-TEX SERVICE GmbH
227. OPC -- OPEN PLATFORM COMMUNICATIONS FOUNDATION
228. ORACLE -- ORACLE INTEGRATED CLOUD APPLICATIONS & PLATFORM SERVICES
229. OWMA -- OPERABLE WALL MANUFACTURERS ASSOCIATION
230. PCA -- PORTLAND CEMENT ASSOCIATION
231. PCI -- PRECAST/PRESTRESSED CONCRETE INSTITUTE
232. PDCA -- PAINTING AND DECORATING CONTRACTORS OF AMERICA
233. PDI -- PLUMBING AND DRAINAGE INSTITUTE
234. PECI - PORTLAND ENERGY CONSERVATION, INC.
235. PEI -- PORCELAIN ENAMEL INSTITUTE
236. PHCC -- PLUMBING HEATING COOLING CONTRACTORS ASSOCIATION
237. PIP -- Process Industry Practices
238. PPI -- PLASTICS PIPE INSTITUTE
239. PTI -- POST-TENSIONING INSTITUTE
240. QAI -- QAI Laboratories
241. RCSC -- RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS
242. RIS -- REDWOOD INSPECTION SERVICE
243. RFCI -- RESILIENT FLOOR COVERING INSTITUTE
244. RTI - ROOF TILE INSTITUTE
245. SAE -- SAE INTERNATIONAL
246. SBCA -- Structural Building Components Association
247. SBCCI -- SOUTHERN BUILDING CODE CONGRESS INTERNATIONAL, INC.
248. SCAQMD -- SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
249. SCMA -- SOUTHERN CYPRESS MANUFACTURERS ASSOCIATION
250. SCS - SCIENTIFIC CERTIFICATION SYSTEMS
251. SCTE -- SOCIETY OF CABLE TELECOMMUNICATIONS ENGINEERS
252. SDI -- STEEL DECK INSTITUTE
253. SDI -- STEEL DOOR INSTITUTE
254. SEFA -- SCIENTIFIC EQUIPMENT AND FURNITURE ASSOCIATION
255. SEMI -- SEMICONDUCTOR EQUIPMENT AND MATERIALS INSTITUTE
256. SIGMA -- SEALED INSULATING GLASS MANUFACTURERS ASSOCIATION (SEE IGMA)
257. SJI -- STEEL JOIST INSTITUTE
258. SMA -- SCREEN MANUFACTURERS ASSOCIATION
259. SMA -- STUCCO MANUFACTURERS ASSOCIATION, INC.
260. SMACNA -- SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION, INC.
261. SPIB -- SOUTHERN PINE INSPECTION BUREAU, INC.
262. SPIB (GR) - Standard Grading Rules; 2021.
263. SPRI -- SINGLE PLY ROOFING INDUSTRY
264. SRI -- STEEL RECYCLING INSTITUTE

265. SSPC -- SOCIETY FOR PROTECTIVE COATINGS
266. SSPC-SP 1 - Solvent Cleaning; 2015, with Editorial Revision (2016).
267. SSPC-SP 2 - Hand Tool Cleaning; 2024.
268. STC -- SYNTHETIC TURF COUNCIL
269. STI -- STEEL TANK INSTITUTE
270. SWI -- STEEL WINDOW INSTITUTE
271. SWRI -- SEALANT, WATERPROOFING AND RESTORATION INSTITUTE
272. TCNA -- TILE COUNCIL OF NORTH AMERICA, INC.
273. TIA -- TELECOMMUNICATIONS INDUSTRY ASSOCIATION
274. TIMA -- TIMA
275. TMS -- THE MASONRY SOCIETY
276. TPI -- TRUSS PLATE INSTITUTE
277. TPI -- TURFGRASS PRODUCERS INTERNATIONAL
278. UL -- UNDERWRITERS LABORATORIES INC.
279. ULC -- UNDERWRITERS' LABORATORIES OF CANADA
280. USGBC -- U.S. GREEN BUILDING COUNCIL
281. VSI -- VINYL SIDING INSTITUTE, A DIVISION OF THE SOCIETY OF THE PLASTICS INDUSTRY, INC.
282. W3C SSG - Web of Services Standards Collection (HTTP, XML, WSDL, UDDI, and others);Current Edition.
283. WA -- World Athletics
284. WCLIB -- WEST COAST LUMBER INSPECTION BUREAU
285. WCMA -- WINDOW COVERING MANUFACTURERS ASSOCIATION
286. WDMA -- WINDOW AND DOOR MANUFACTURERS ASSOCIATION (formerly NWWDA)
287. WI -- WOODWORK INSTITUTE
288. WMMPA -- WOOD MOULDING AND MILLWORK PRODUCERS ASSOCIATION
289. WRCLA -- WESTERN RED CEDAR LUMBER ASSOCIATION
290. WWPA -- WESTERN WOOD PRODUCTS ASSOCIATION

PART 3 UNITED STATES GOVERNMENT AND RELATED AGENCIES DOCUMENTS

3.01 WHERE ABBREVIATIONS AND ACRONYMS ARE USED IN SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, THEY ARE TO MEAN THE RECOGNIZED NAME OF THE ENTITIES IN THE FOLLOWING LIST. INFORMATION IS SUBJECT TO CHANGE AND IS UP TO DATE AS OF THE DATE OF THE CONTRACT DOCUMENTS.

A. Referenced Federal Standards:
   1. ATBCB -- US ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD (THE ACCESS BOARD)
   2. CEQ -- Council on Environmental Quality Guidance
   3. CFR -- CODE OF FEDERAL REGULATIONS
   4. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
   5. COE -- CORPS OF ENGINEERS, U.S. ARMY
   6. CPSC -- CONSUMER PRODUCTS SAFETY COMMISSION
   7. DAAB -- State of Delaware; Delaware Arctitectural Accessibility Board.
   8. DelDOT -- State of Delaware; Department of Transportation.
   9. DFM -; State of Delaware; Office of Management and Budget; Division of Facilities Management.
   10. DHSS -- State of Delaware; Department of Health and Social Services,
   11. DOA -- State of Delaware; Department of Agriculture.
   12. DOC -- State of Delaware; Department of Correction.
   13. DOE -- State of Delaware; Department of Education.
   14. DOF -- State of Delaware; Department of Finance.
   15. DOI -- State of Delaware; Department of Insurance.
   16. DOJ -- State of Delaware; Department of Justice.

17. DOL -- State of Delaware; Department of Labor.
18. DOS -- State of Delaware; Department of State.
19. DOS -- UNITED STATES DEPARTMENT OF STATE
20. DTI -- State of Delaware; Department of Technology and Information.
21. DSHS -- State of Delaware; Department of Safety and Homeland Security.
22. DSP -- State of Delaware; Delaware State Police.
23. EPA -- ENVIRONMENTAL PROTECTION AGENCY
24. FAA -- FEDERAL AVIATION ADMINISTRATION
25. FDA -- FOOD AND DRUG ADMINISTRATION
26. FEMA -- U.S. FEDERAL EMERGENCY MANAGEMENT AGENCY
27. FHWA -- FEDERAL HIGHWAY ADMINISTRATION
28. FS -- FEDERAL SPECIFICATIONS AND STANDARDS (General Services Administration)
29. GSA -- U.S. GENERAL SERVICES ADMINISTRATION
30. GSS -- State of Delaware; Office of Management and Budget; Government Support Services.
31. HHS -- U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, CENTERS FOR DISEASE CONTROL AND PREVENTION
32. MIL -- MILITARY SPECIFICATIONS AND STANDARDS
33. NASEM -- NATIONAL ACADEMIES OF SCIENCE, ENGINEERING, AND MEDICINE
34. NCSC -- NATIONAL COUNTERINTELLIGENCE AND SECURITY CENTER
35. NIJ -- NATIONAL INSTITUTE OF JUSTICE (DEPT. OF JUSTICE)
36. NPS -- NATIONAL PARK SERVICE (DEPT. OF THE INTERIOR)
37. NSA -- NATIONAL SECURITY AGENCY
38. OMB -- State of Delaware; Office of Management and Budget.
39. PS -- PRODUCT STANDARDS
40. PS 1 - Structural Plywood; 2023.
41. PS 20 - American Softwood Lumber Standard; 2025.
42. USAB -- UNITED STATES ACCESS BOARD
43. USC -- UNITED STATES CODE
44. USDA -- UNITED STATES DEPARTMENT OF AGRICULTURE
45. USDHUD -- UNITED STATES DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
46. USGS -- UNITED STATES GEOLOGICAL SURVEY

PART 4 STATE GOVERNMENT AND RELATED AGENCIES DOCUMENTS

4.01 WHERE ABBREVIATIONS AND ACRONYMS ARE USED IN SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, THEY ARE TO MEAN THE RECOGNIZED NAME OF THE ENTITIES IN THE FOLLOWING LIST. INFORMATION IS SUBJECT TO CHANGE AND IS UP TO DATE AS OF THE DATE OF THE CONTRACT DOCUMENTS.

A. Referenced State of Delaware Standards:
   1. DelDOT; State of Delaware; Department of Transportation; https://deldot.gov/
   2. DFM; State of Delaware; Office of Management and Budget; Division of Facilities Management; https://dfm.delaware.gov/
   3. DHSS; State of Delaware; Department of Health and Social Services; https://dhss.delaware.gov/dhss/
   4. DNREC; State of Delaware; Department of Natural Resources and Environmental Control; https://dnrec.alpha.delaware.gov/
   5. DTCC; Delaware Technical and Community College; https://www.dtcc.edu/
   6. DOA; State of Delaware; Department of Agriculture; https://agriculture.delaware.gov/
   7. DOC; State of Delaware; Department of Correction; https://doc.delaware.gov/
   8. DOE; State of Delaware; Department of Education; https://education.delaware.gov/
   9. DOF; State of Delaware; Department of Finance; https://finance.delaware.gov/
   10. DOI; State of Delaware; Department of Insurance; https://insurance.delaware.gov/

11. DOJ; State of Delaware; Department of Justice; https://attorneygeneral.delaware.gov/
12. DOL; State of Delaware; Department of Labor; https://labor.delaware.gov/
13. DOS; State of Delaware; Department of State; https://sos.delaware.gov/
14. DTI; State of Delaware; Department of Technology and Information; https://dti.delaware.gov/
15. DSHS; State of Delaware; Department of Safety and Homeland Security; https://dshs.delaware.gov/
16. DSP; State of Delaware; Delaware State Police; https://dsp.delaware.gov/
17. GSS; State of Delaware; Office of Management and Budget; Government Support Services, https://gss.omb.delaware.gov/
18. OMB; State of Delaware; Office of Management and Budget; https://omb.delaware.gov/

END OF SECTION 014219

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SECTION 014339
MOCKUP REQUIREMENTS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
1. Integrated interior and/or exterior mock-ups.
2. Refer to technical sections for more product-specific mock-up requirements.
3. Requirements for mock-ups are supplemental to the requirements for material samples and field samples as specified in individual technical sections.
4. Drawings and general provisions of the Contract, including but not limited to General and Supplementary Conditions.
5. Refer to individual specification sections for required mock-ups.

1.02 DEFINITIONS

A. Exterior Mock-ups:
1. Mock-ups of the exterior envelope constructed on-site as freestanding temporary built elements, consisting of multiple products, assemblies, and subassemblies, as indicated on drawings.

1.03 REFERENCE STANDARDS

A. AAMA 501.2 - Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls, and Sloped Glazing Systems; 2025.

B. ASTM E783 - Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors; 2002 (Reapproved 2018).

C. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference; 2015 (Reapproved 2023).

1.04 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.
1. Meet with Owner, Construction Manager, Architect, testing and inspecting agency representative, and installers of major systems whose Work is included in integrated exterior mock-ups.
2. Review locations and extent of mock-ups.
3. Review testing procedures to be performed on mock-ups.
4. Review and finalize schedule for mock-ups, and verify availability of materials, personnel, equipment, and facilities needed to complete mockups and testing and maintain schedule for the Work.

1.05 ACTION SUBMITTALS

A. Shop Drawings: For exterior mock-ups.
1. Include plans, elevations, sections, and mounting, attachment and support details.
2. Indicate manufacturer and model number of individual components, subassemblies, and assemblies.
3. Include site location drawing indicating orientation of mock-up.
4. Revise and resubmit Shop Drawings to reflect approved modifications in details and component interfaces resulting from changes made during testing procedures.

B. Delegated Design Submittal: For temporary structural supports for mockups not attached to building structure, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.06 INFORMATIONAL SUBMITTALS

A. Mock-up Coordination Drawings: Plans and other details, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

B. Qualification Data: For testing agency.

C. Preconstruction Test Reports: For integrated exterior mock-ups.

1.07 QUALITY ASSURANCE

A. Build mock-ups to do the following:
   1. Verify selections made under Sample submittals.
   2. Demonstrate aesthetic effects.
   3. Demonstrate the qualities of products and workmanship.
   4. Demonstrate acceptable coordination between components and systems.
   5. Perform preconstruction testing, such as window air- and water-leakage testing.

B. Fabrication: Before fabricating or installing portions of the Work requiring mock-ups, build mock-ups for each form of construction and finish required. Use materials and installation methods as required for the Work.
   1. Build mock-ups of size indicated.
   2. Build mock-ups in location indicated or, if not indicated, as directed by Architect or Construction Manager.
   3. Employ supervisory personnel who will oversee mock-up construction. Employ workers who will be employed to perform same tasks during the construction at Project.
   4. Demonstrate the proposed range of aesthetic effects and workmanship.
   5. Maintain mock-ups during construction in an undisturbed condition as a standard for judging the completed Work.
   6. Demolish and remove mock-ups when directed unless otherwise indicated.

C. Notifications:
   1. Notify Architect and Construction Manager seven days in advance of the dates and times when mock-ups will be constructed.
   2. Notify Architect and Construction Manager 14 days in advance of the dates and times when mock-ups will be tested.
   3. Allow seven days for initial review and each re-review of each mock-up.

D. Approval: Obtain Architect's and Construction Manager's approval of mock-ups before starting fabrication or construction of corresponding Work.
   1. Unless otherwise indicated, approved mock-ups establish the standard by which the Work will be judged.
   2. Approval of mock-ups does not constitute approval of deviations from the Contract Documents contained in mock-ups unless Architect specifically approves such deviations in writing.

1.08 COORDINATION

A. Coordinate schedule for construction of mock-ups, so construction, testing, and review of mock-ups do not impact Project schedule.

PART 2 PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design support structure for free-standing mock-ups.

B. Structural Performance:
   1. Seismic Performance: Mock-ups and support structure to withstand the effects of earthquake motions determined in accordance with ASCE/SEI 7.
   2. Wind Loads: As indicated on Drawings.

C. Mock-up Testing Performance Requirements: Perform tests using design pressures and performance criteria indicated for assemblies and products that are specified in other Sections and incorporated into integrated exterior mock-ups.

2.02 INTEGRATED EXTERIOR MOCKUPS

A. Construct integrated exterior mock-ups according to approved mock-up Shop Drawings. Construct mock-ups to demonstrate constructability, coordination of trades, and sequencing of Work; and to ensure materials, components, subassemblies, assemblies, and interfaces integrate into a system complying with indicated performance and aesthetic requirements. See drawings for free-standing intigrated exterior mock-up size and configuration.

B. Design and construct foundation and superstructure to support free-standing integrated exterior mock-ups.

C. Build integrated exterior mock-ups using installers and construction methods that will be used in completed construction.

D. Use specified products that have been approved by Architect. Coordinate installation of materials and products specified in individual Specification Sections that include Work included in integrated exterior mock-ups.

E. The Work of integrated exterior mock-ups includes, but is not limited to, the following:
   1. Unit masonry
   2. Masonry veneer.
   3. Cold-formed metal framing and sheathing.
   4. Waterproofing.
   5. Air and weather barriers.
   6. Thermal insulation.
   7. Through-wall flashing.
   8. Flashing and sheet metal trim.
   9. Joint sealants.
   10. Metal roof panels.
   11. Metal wall panels.
   12. Cementitious Wall Panels
   13. Single-ply membrane roofing.
   14. Roof Specialties
   15. Gutters and Downspouts
   16. Roof Accessories
   17. Aluminum-framed storefront
   18. Glazing.

F. Photographic Documentation: Document construction of integrated exterior mock-ups with photographs. Provide photographs showing details of interface of different materials and assemblies.
   1. Document testing procedures, including water leakage and other deficiencies. Photograph modifications to component interfaces intended to correct deficiencies.

G. Provide and document modifications to construction details and interfaces between components and systems required to properly sequence the Work, or to pass performance testing requirements. Obtain Architect's approval for modifications.

H. Retain approved mock-ups constructed in place. Incorporate fully into the Work.

PART 3 EXECUTION

3.01 TESTING OF INTEGRATED EXTERIOR MOCKUPS

A. Integrated Exterior Mock-up Testing Agency: Construction Manager will engage a qualified testing agency to perform tests and inspections.
   1. Testing and inspecting agency will interpret tests and state in each report whether tested Work complies with or deviates from requirements.

B. Integrated Exterior Mock-up Testing Services: Perform the following tests in the following order:
   1. Water-Spray Test: Before installation of interior finishes has begun, test areas designated by Architect in accordance with AAMA 501.2 for evidence of water penetration.
      a. Perform a minimum of two tests in areas as directed by Architect.
   2. Air Leakage: Test in accordance with ASTM E783 at 1.5 times the rate specified in "Mock-up Testing Performance Requirements" Paragraph in "Performance Requirements" Article, but not more than 0.09 cfm/sq. ft. (0.45 L/s per sq. m) at a static-air-pressure differential of 1.57 lbf/sq. ft. (75 Pa).
      a. Perform a minimum of two tests in areas as directed by Architect.
   3. Water Penetration: Test in accordance with ASTM E1105 at a minimum uniform and cyclic static-air-pressure differential of 0.67 times the static-air-pressure differential specified for laboratory testing in "Mock-up Testing Performance Requirements" Paragraph in "Performance Requirements" Article, but not less than 6.24 lbf/sq. ft. (300 Pa), and verify no evidence of water penetration.

C. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and installations, including connections, and also to observe testing for the following systems and assemblies.
   1. Aluminum Storefront System specified in Section 084313 "Aluminum-Framed Storefront."
   2. Metal Roof Panels specified in Section 074113 “Metal Roof Panels”.
   3. Metal Wall Panels specified in Section 074213 “Metal Wall Panels”.

D. Integrated exterior mock-up will be considered defective if it does not pass tests and inspections.

E. Prepare test and inspection reports.

END OF SECTION 014339

SECTION 014500 - QUALITY CONTROL

1. DESCRIPTION

   A. Quality control services include inspections and tests performed by independent agencies and governing authorities, as well as by the Contractor. Inspection and testing services are intended to determine compliance of the work with requirements specified. Specific quality control requirements are specified in individual specification sections.

2. RESPONSIBILITIES

   A. Contractor Responsibilities: Except where indicated as being the Owner's responsibility, quality control services are the Contractor's responsibility, including those specified to be performed by an independent agency and not by the Contractor. The Contractor shall employ and pay an independent agency, testing laboratory or other qualified firm to perform quality control services specified.

      1. The Owner will engage and pay for services of an independent agency to perform the inspections and tests that are specified as Owner's responsibilities.

   B. Retest Responsibility: Where results of inspections or test do not indicate compliance with Contract Documents, retests are the Contractor's responsibility.

   C. Responsibility for Associated Services: The Contractor shall cooperate with independent agencies performing inspections or test. Provide auxiliary services as are reasonable. Auxiliary services include:

      1. Provide access to the Work.

      2. Assist taking samples.

      3. Deliver samples to test laboratory.

   D. Coordination: The Contractor and independent test agency shall coordinate the sequence of their activities and shall avoid removing and replacing work to accommodate inspections and test. The Contractor is responsible for scheduling time for inspections and tests.

   E. Qualifications for Service Agencies: Contractor shall engage only inspection and test service agencies which are pre-qualified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories.

   F. Submittals: Contractor shall submit a certified written report of each test, Inspection or similar service, in duplicate to the Construction Manager. Contractor shall submit additional copies of each report to any governing authority, when the authority so directs.

   G. Report Data: Written inspection or test reports shall include:

1. Name of testing agency or test laboratory.

2. Dates and locations of samples, tests or inspections.

3. Names of individual present.

4. Complete inspection of test data.

5. Test results.

6. Interpretations.

7. Recommendations.

H. Repair and Protection: Upon completion of inspection or testing, Contractor shall repair damaged work and restore substrates and finishes. Contractor shall comply with requirements for "Cutting and Patching."

I. Special Instructions:
   1. Structural tests and special inspections must be conducted by an approved agency (an agency or firm regularly engaged in conducting tests or furnishing inspection services, approved by the authority having jurisdiction.) This means that contractors will no longer be allowed to cast their own test cylinders for example.

   2. Continuous special inspection (the full-time observation of work by an approved special inspector who is present until completion of the work) is required for any steel welds and connections. Critical elements may include: all slip critical bolted connections, complete and partial groove welds, multi-pass fillet welds and single pass fillet welds greater than 5/16".

   3. Continuous special inspection is required during the placement of all concrete and shotcrete for the proper application techniques with a few exceptions.

   4. Periodic special inspection (the part-time observation by an approved special inspector) is required for any steel welds and connections. Critical elements may include: all slip critical bolted connections, complete and partial groove welds, multi-pass fillet welds and single pass fillet welds greater than 5/16".

   5. Spray applied fireproofing requires periodic special inspection for the structural member surface conditions, application, thickness, density and bond strength.

   6. Based on the classification, occupancy, and design of the structure, the code requires periodic special inspection for placement of masonry units and reinforcing steel and continuous special inspection of grout placement.

END OF SECTION

SECTION 015113 - TEMPORARY ELECTRICITY

1. GENERAL

A. RELATED WORK SPECIFIED ELSEWHERE

1. Electrical Basic Materials and Methods, Division 16 or 26.

B. DESCRIPTION OF SYSTEM

1. Power Source

a. Suppliers: Delmarva Power

b. The Electrical Contractor shall provide 277/480 volt, three phase, 60 cycle power service to the site utilizing the existing S&C Switch and Electric Manhole.

c. The Electrical Contractor will make all arrangements for bringing the power supply to the site and for installation of appropriate temporary transformers to provide for the power supply in 1.B.1.b, above.

d. The source will be adequate to service temporary electrical needs of the proposed construction.

2. Electrical Service

a. The electrical subcontractor will bring a source of temporary power to the building pad following construction of the building foundations and slabs. Each subcontractor is responsible for providing their own temporary power source and associated fuel until the temporary service is installed.

b. Contractor will be responsible to pay for all costs associated with providing electrical service from the power source to their respective site office, temporary storage facilities or temporary construction buildings as appropriate.

c. Prior to issuance of the Notice to Proceed for the electrical contract, the Construction Manager will be responsible for providing temporary electrical service as provided in 1.B.2.c, below. After issuance of the Notice to Proceed for the electrical contract, the Electrical Contractor shall become responsible for maintaining all electrical power supply and service facilities installed by the Construction Manager. The Electrical Contractor shall also, from that date forward, be responsible for providing and maintaining temporary electrical service to the site as provided in 1.B.2.c, below.

d. The Electrical Contractor, as provided in 1.B.2.b, above, shall install temporary electric service for items below, throughout the construction period, such that power can be secured at any desired point with no more than a 60 foot extension:

(1) Power Centers for miscellaneous tools and equipment used in the construction work shall be provided with a minimum of four 20-amp, 120 volt grounding type outlets. Each outlet shall be provided with ground fault detecting circuit breaker protection. The distance between each receptacle location shall not exceed 50 feet.

(2) Construction areas, ramps, runways, corridors, offices, shops, and storage areas shall be lighted to not less than the minimum illumination intensities at five (5) foot candles and any additional OSHA requirements. Adequate lighting for safe working conditions and the exterior of the structure shall be provided and maintained on a 24 hour per day basis throughout the building. Voltage of each lighting component must be able to accommodate lighting requirements.

(3) Temporary Exterior lighting shall be provided and maintained on a 24 hour per day basis. Exterior lighting is to be located at each exterior entrance to the building (stairtowers, main entrance, rear entrance).

(4) Power for testing and checking equipment must be supplied.

3. Capacity

a. All electrical power supply and service lines installed shall be of adequate capacity for construction use by all trades during the construction period at the locations necessary.

b. The Electrical Contractor shall notify the Power Company if unusually heavy loads, such as welding units, are anticipated.

4. Power Costs

a. The Construction Manager will pay all costs of temporary electrical power used during construction.

b. The Owner will pay all costs of power used in the permanent wiring.

C. REQUIREMENTS AND REGULATORY AGENCIES

1. The Electrical Contractor will obtain permits as required by local governmental authorities.

2. The temporary electrical service shall comply with National Electrical Code, 1990 Edition and applicable local codes and utility regulations.

D. USE OF PERMANENT SYSTEM

1. The Electrical Contractor shall regulate any part of the permanent electrical system which is used for construction purposes to prevent interference with safety and orderly progress of

the Work.

2. Contractors shall leave permanent electrical services in a condition as good as new and clean.

2. PRODUCTS

A. MATERIALS

1. General

a. The materials may be new or used, but must be adequate in capacity for the purposes intended and must not create unsafe conditions or violate the requirements of applicable codes.

2. Conductors

a. Use wire, cable, or busses of appropriate type, sized in accordance with the National Electrical Code for the applied loads.

b. Use only UL labeled wire and devices.

B. EQUIPMENT

1. Provide appropriate enclosure for the environment in which used in compliance with NEMA standards.

3. EXECUTION

A. GENERAL

1. Install all work with a neat and orderly appearance.

2. Make structurally sound throughout.

3. Maintain to give continuous service and to provide safe working conditions.

4. Modify temporary power and light installation as job progress requires.

B. INSTALLATION

1. Locate so that interference with storage areas, traffic areas and work under other Contracts is avoided.

C. REMOVAL

1. Remove all temporary equipment and materials completely upon completion of construction.

2. Repair all damage caused by the installation and restore to satisfactory condition.

END OF SECTION

SECTION 015123 - TEMPORARY HEATING, COOLING AND VENTILATING

1. GENERAL

A. RELATED REQUIREMENTS SPECIFIED ELSEWHERE

1. Temporary Electric: Section 015113

2. Temporary Facilities: Section 015200

3. Heating Requirements for Cold Weather Installation and Protection of Materials: Respective specification section for each item of work.

B. DEFINITIONS

1. Temporary Enclosures: Sufficient preliminary enclosures of an area of structure, or of an entire building, to prevent entrance or infiltration of rainwater, wind, or other elements and which will prevent undue heat loss from within enclosed area.

2. Permanent Enclosure: Stage of construction at which all moisture and weather protection elements of construction have been installed in accordance with Contract Documents, either for a portion of structure, or for an entire building.

C. DESCRIPTION OF SYSTEM

1. Prior to the building or portion of building being permanently enclosed, each Contractor shall provide temporary heat and ventilation and weather protection necessary for their work, as described below. After permanent enclosure, the Mechanical Contractor provide and maintain temporary heat and ventilation in enclosed areas, coordinated by the Construction Manager, required to:

a. Facilitate progress of Work.

b. Protect Work and products against dampness and cold.

c. Prevent moisture condensation on surfaces.

d. Provide suitable ambient temperatures and humidity levels for installation and curing of materials.
e. Provide adequate ventilation to meet health regulations for safe working environment.

2. Temperatures Required

a. Generally, 24 hours a day: Minimum of 40 degrees F.

b. 24 hours a day during placing, setting, and curing of cementitious materials: As required by specification section for each product.

c. 24 hours a day, seven days prior to, and during, placing of interior finishes: woodwork, resilient floors, painting and finishing: As required by specification section for each product.

d. 24 hours a day after application of finishes, and until Substantial Completion: Minimum of 50 degrees F.

3. Ventilation Required:

a. Contractors shall prevent hazardous accumulations of dusts, fumes, mists, vapors, or gases in areas occupied during construction. Reference OSHA regulations CFR 1926.55 (Gases, vapors, fumes, dusts, and mists). and CFR 1926.57 (Ventilation).

(1) Provide local exhaust ventilation to prevent harmful dispersal of hazardous substances into atmosphere of occupied areas.

(2) Dispose of exhaust materials in manner that will not result in harmful dispersal of hazardous substances into atmosphere of occupied areas.

(3) Continuously ventilate storage spaces containing hazardous or volatile materials.

(4) Contractor/subcontractor must provide and use equipment which is furnished with Exhaust Purifiers/Scrubbers or is electrically power driven when any such equipment produces airborne containments and will be used in an enclosed building.

(5) The Contractor/subcontractor shall verify air quality by the use of air monitoring equipment and document the verified air quality on the daily report. The monitoring equipment shall, at a minimum, be designed with an auditory alarm and shall provide continuous monitoring of those four gasses, Oxygen, Hydrogen Sulfide, Carbon Monoxide and Combustible gasses.

4. Contractors shall provide adequate ventilation for:

a. Curing installed materials.

b. Dispersal of humidity.

c. Temporary sanitary facilities.

5. Duration of Operations:

   a. For Personnel:

      (1) At all times personnel occupy an area subject to hazardous accumulations of harmful elements.

      (2) Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful elements.

   b. For curing installed materials: As required by specification section for respective materials.

   c. For humidity dispersal: Continuously ventilate to provide suitable ambient conditions for work.

   d. The Mechanical Contractor shall maintain supervision and operation of temporary heating and ventilating equipment in order to:

      (1) Enforce conformance with applicable codes and standards.

      (2) Enforce safe practices.

      (3) Prevent abuse of services.

D. COSTS OF INSTALLATION AND OPERATION

1. The Contractor shall be responsible for all installation and operating costs for any heat and ventilation as required in this section until the permanent HVAC system is in operation.

2. After the permanent HVAC system is operational, the Owner will pay the costs of fuel for temporary heat and ventilation. The Contractor will pay the costs for maintaining the system until final acceptance by the Owner.

3. The Mechanical Contractor shall be responsible for all installation and operating costs for any heat required to supplement that which is to be supplied by the Construction Manager in paragraph 1.C.1, above.

E. REQUIREMENTS OF REGULATORY AGENCIES

1. The Construction Manager will obtain and pay for permits as required by governing authorities for those activities required by this Section.

2. Contractor shall comply with Federal, State, and local codes, and utility company regulations.

2. PRODUCTS

A. MATERIALS

1. General

a. Materials may be new or used but must be adequate for purposes intended and must not create unsafe conditions nor violate requirements of applicable codes.

B. EQUIPMENT

1. Standard products, meeting code requirements.

2. Provide required facilities, including piping, wiring and controls.

3. Portable Heaters:

a. Indirect hot air units, located outside with duct entering into the building. Provide a sufficient number of units to meet the temperature and ventilation requirements specified above.

b. Provide Safety Controls against explosion, overheating, and carbon monoxide build up.

c. Provide adequate combustion air.

d. Provide Temperature Controls installed in the building at a location(s) designated by the Construction Manager.

e. Provide temporary barricades around the equipment to protect against damage from other construction equipment.

f. Provide supplementary fans / distribution equipment capable of distributing heated air evenly throughout the space(s).

4. Oil-Fired heaters will not be allowed.

3. EXECUTION

A. GENERAL

1. Comply with applicable sections of Division 26 - Mechanical.

2. Install work in neat and orderly manner.

3. Make structurally, mechanically, and electrically sound throughout.

4. Maintain to give safe, continuous service at required times and to provide safe working conditions.

5. Modify and extend system as work progress requires.

B. INSTALLATION

1. Locate units to provide equitable distribution of heat and air movements.

2. Locate to avoid interference with, or hazards to:

   a. Work or movement of personnel.

   b. Traffic areas.

   c. Materials handling.

   d. Storage areas.

   e. Work of other Contractors.

   f. Finishes.

C. OPERATION OF PERMANENT EQUIPMENT

1. The Construction Manager will coordinate with the mechanical Contractor.

2. The Mechanical Contractor will place permanent HVAC system in operation only upon written authorization by the Construction Manager.

3. Before operating the permanent HVAC equipment, the Contractor shall confirm to the Construction Manager that:

   a. Inspection has been made by proper authorities.

   b. Systems, equipment piping, strainers, filters and associated operating items are sufficiently complete, cleaned, and ready for operation.

c. Controls and safety devices are complete and tested, or adequate temporary controls are provided.

d. Before operating the permanent HVAC equipment, the Contractor shall install temporary filters:

(1) For air handling units.

(2) For permanent ducts.

(3) The mechanical contractor will include monthly changes of the temporary filters for a minimum of six (6) months.

D. REMOVAL

1. The Contractor shall completely remove temporary materials and equipment when no longer required, or on completion of construction.

2. The Contractor shall clean and repair damage caused by temporary installation and restore equipment to specified or original condition.

3. The Contractor shall remove temporary filters and install new filters, or clean permanent filters, in the permanent HVAC system prior to final acceptance by the Owner.

END OF SECTION

SECTION 015200 - CONSTRUCTION FACILITIES & TEMPORARY CONTROLS

1. GENERAL

   A. DESCRIPTION

      1. Construction Manager and Contractors shall provide all temporary facilities throughout the construction period unless otherwise indicated in the Contract Documents.

      2. Construction Manager and Contractors shall pay all costs for providing, maintaining and removing of all temporary facilities unless otherwise indicated in the Contract Documents.

   B. RELATED WORK SPECIFIED ELSEWHERE

      1. Temporary Electric: Section 015113.

2. FACILITIES

   A. TEMPORARY SANITATION FACILITIES

      1. Construction Manager will provide and maintain sanitary facilities for all personnel on the project.

      2. The number of sanitary facilities required shall be based on the total number or workers employed on the site and shall be in accordance with the provisions of the applicable code.

      3. Construction Manager will maintain sanitary facilities in a sanitary and clean condition at all times.

   B. TEMPORARY WATER

      1. Drinking Water: Contractor shall provide potable water for drinking purposes for all his personnel on the site. He shall furnish disposable drinking cups at water stations. Each water station shall be equipped with a suitable trash container for disposal of the drinking cups.

      2. Construction Water: Construction Manager will provide and maintain tap locations for construction water of sufficiently pure and potable quality to avoid deleterious effect on any materials used. Location of construction water tap locations will be determined by the Construction Manager depending on the stage of construction of the incoming water service. Contractor shall provide and maintain all hoses, piping and valves as required for obtaining construction water from taps provided by the Construction Manager.

C. TEMPORARY TELEPHONES

1. Construction Manager will not provide any telephones or fax machines for Contractor's personnel. Each Contractor is responsible for its own phones and fax machines.

D. FIELD OFFICE

1. During the period of the Work and until final acceptance of the project, the Construction Manager will provide a weatherproof building for the Construction Manager's Field Project Manager(s) and Superintendent(s). Contractor shall make provisions for its own field office, subject to approval by the Construction Manager.

E. FIRE PROTECTION

1. The Construction will provide and maintain portable fire extinguishers on each floor level and building area. Number to conform to applicable codes.

2. Contractor shall provide additional fire extinguishers as required by OSHA regulations for its work.

3. Fire extinguishers shall be 10lb, Multi-Purpose (ABC) dry chemical, UL labeled, with a rating of 3a:40bc.

F. ACCESS ROADS AND PARKING AREAS

1. The Construction Manager will provide and maintain access roads on the site.

2. Neither the Construction Manager nor the Owner will provide parking for Contractor's personnel on or about the project site. All parking provisions required for Contractors will be solely the responsibility of the Contractors or their personnel.

G. STORAGE AREAS

1. The Construction Manager will assign storage areas on the site. Storage areas are extremely limited and will be assigned in a manner which will best facilitate the work.

2. Contractor shall provide all other storage space required for its work at off-site locations.

3. All combustible or flammable materials must be safely stored in a secured area in strict accordance with regulations, codes and laws enforced by local, State or Federal agencies, whichsoever is the most stringent.

H. FIRST AID STATION

1. The Contractor's Superintendent or Safety Supervisor shall insure that adequate first aid supplies are available, and that personnel are qualified to administer first aid/CPR, as required by State and/or Federal regulations.

I. SECURITY

1. The Construction Manager will provide the following security measures at the site: security lighting will be provided.

2. All other safety and security measures shall be the responsibility of each Contractor. These measures shall include but are not limited to the provision of secured storage for tools, construction equipment, and materials and equipment scheduled for installation in the building.

J. BENCH MARKS AND BASELINE

1. The Construction Manager will lay out and establish and maintain bench marks and baselines.

2. The Contractor shall lay out his own work and shall be responsible for the accuracy of same.

3. Contractor shall check grades, lines, levels and dimensions as shown on the drawings and shall promptly report errors or inconsistencies in same to the Construction Manager before Work proceeds.

4. The Contractor is responsible for damaging or altering the bench marks and baselines established by the Construction Manager and shall bear the costs of replacing same.

K. FIELD OFFICE AND STORAGE TRAILERS

1. Contractor shall provide and maintain its own field office and storage trailers as required.

2. Contractor shall provide temporary heat and power for its field office and storage trailer.

3. Contractor’s field offices and storage trailers shall be located as directed by the Construction Manager.

L. PROJECT SIGN

1. The Construction Manager will provide a Project Sign naming the major participants, as determined by the Owner.

M. TRASH DISPOSAL

1. Each Contractor shall be responsible for daily clean up and depositing its **common trash** in the dumpsters provided by the Construction Manager. All sitework related spoils and trash will be disposed of by Sitework Contractor, in a receptacle furnished by the Sitework Contractor.

N. HOISTING

1. Contractor shall provide its own materials hoists and cranes. No personnel hoist will be provided.

O. SCAFFOLDING AND WORKING PLATFORMS

1. No scaffolding shall be provided by the Construction Manager. Each Contractor shall provide all scaffolding required to perform its Work.

P. SAFETY BARRICADES AND RAILINGS

1. The Structural Contractor shall provide barricades **and protective barriers** around elevator, stair, shaft and cut openings in floors and roofs, and edges of floors and roofs. The methods and materials used in barricading shall be in accordance with OSHA and local code regulations. Barricades and protective barriers will be installed immediately after the installation of the floor slab on any level or part of a level on the Building. Until a level has been fully barricaded, the Structural Contractor will be responsible for maintenance of the barricades. When a warning barricade is used to prohibit employees from entering a restricted work area. The "warning barricade" shall meet the requirements of CFR 1926.502 (f)(2). The supported rope, wire, or chain shall be flagged at not more than 6-foot (1.8 m) intervals with high-visibility material and maintain between 34 and 39 inches above the walking/working surface; Warning signs and tags shall be used in accordance with Subpart G of CFR OSHA Construction Industry Regulations.

2. After the barricades and protective barriers are no longer needed, the Structural Contractor will remove the barricades from the site. The Construction Manager will determine the location and scheduling of barriers to be removed.

3. Contractor shall provide for its own barricades at all other trenches, excavations, and locations not specifically identified in Paragraph 1 above.

4. Contractors who remove barricades shall be responsible for replacing them. If, after proper notification, in writing, from the Construction Manager the responsible Contractor does not correct his deficiencies in safety barricade placement, the

Construction Manager reserves the right to undertake this work and backcharge the responsible Contractor(s).

5. During the execution of his work, Contractor will provide daily maintenance of, and upon completion of same, restore all barricades in a manner acceptable to prevailing safety standards enforced by local, State or Federal ordinance, whichsoever is most stringent. The intent is to leave no floor penetration or perimeter opening in an unsafe condition.

6. The Construction Manager shall arrange for temporary ladders required for access to each of the floor levels after the completion of floor slab work, and until the final stairs are ready for use.

Q. PUMPING AND DRAINAGE

1. Contractor shall provide its own pumping and drainage.

2. When an area is released by one Contractor to another, the Contractor releasing an area shall be responsible for leaving it in a drained condition. The incoming Contractor shall assume responsibility for drainage on the day that he is scheduled to start work in the area. If the incoming Contractor is late in starting work, he shall assume responsibility for pumping and drainage arising as a result.

R. TEMPORARY BUILDING ENCLOSURES

1. The Construction Manager will equip all temporary exterior doors of the building with self-closing hardware and padlocks.

2. All other temporary enclosures and protection shall be provided by the Contractor requiring the protection.

3. Temporary enclosures required due to late delivery of materials or untimely installation of work shall be the responsibility of the Contractor responsible for the delay.

S. TEMPORARY POWER AND LIGHTING

1. Contractor shall provide all extension cords and outlets as required for obtaining electric power from power centers provided by the Electrical Contractor. Refer to Section 015113 - TEMPORARY ELECTRIC.

2. Contractor shall provide its own additional temporary lighting of sufficient lighting levels to properly install his work.

T. TEMPORARY HEAT

1. CM shall provide temporary heat as required for its operations. Once a building has reached the "Permanent Enclosure" stage, temporary heat will be provided as specified in Section 015123 - TEMPORARY HEAT AND VENTILATION.

U. PROTECTION OF ADJACENT MATERIALS

1. Contractor shall protect adjacent materials and finishes from damage as a result of its work.

V. CLEAN UP

1. Contractor shall arrange for clean up and removal of debris resulting from its operations, and shall dispose of debris in accordance with the provisions of Paragraph 2.13 above. Clean up shall be on a continual basis to ensure that building, grounds and public properties are maintained free from accumulations of waste materials and trash.

2. The Contractor will limit use of and ensure that all materials, including waste, that are combustible or flammable will be removed from the building continually, as work progresses, **and at a minimum** at the end of each work day. All trash which is potentially edible or may attract rodents or insects will be disposed of in metal containers and removed by the end of the work day.

3. At completion of its Work, each Contractor shall remove waste materials, rubbish, tools, equipment, and clean up all exposed surfaces in preparation for final cleaning.

4. If, after notification in writing from the Construction Manager, the Contractor does not correct its deficiencies in housekeeping within twenty four (24) hours, the Construction Manager reserves the right to undertake the Work and to backcharge the Contractor.

5. Final clean up prior to Owner occupancy shall be arranged for by the Construction Manager.

W. DUST PROTECTION

1. Contractor shall erect and maintain dust proof protection whenever its operations will produce dust and dirt that might filter through the building into occupied or finished areas. Contractor shall be responsible for all cleaning required due to its failure to provide adequate dust protection.

X. PROTECTION OF EXISTING CONSTRUCTION

1. Contractor shall be responsible for all damage that it may cause to materials and

equipment stored or installed by other Contractors.

Y. OTHER

1. Contractor shall provide any other Temporary Facilities and services that it requires and which are not specifically identified above.

3. PERMITS

3.1 The Construction Manager will obtain the Building Permit. All other permits are to be obtained and paid for by the Contractor requiring them.

4. EXECUTION

A. GENERAL

1. Contractor shall install all temporary facilities in accordance with applicable codes.

2. Contractor shall maintain temporary facilities for which it is responsible throughout the construction period.

3. Contractor shall remove all temporary facilities for which it is responsible when they are no longer required or when the Construction Manager directs the removal of same.

4. Contractor shall repair all damage to the Project Site caused by the installation of its temporary facilities.

END OF SECTION

SECTION 016116
VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Requirements for Indoor-Emissions-Restricted products.

B. Requirements for VOC-Content-Restricted products.

C. Requirement for installer certification that they did not use any non-compliant products.

1.02 RELATED REQUIREMENTS

A. Section 013300 - Submittals Procedures.

B. Section 079200 - Joint Sealants: Emissions-compliant sealants.

1.03 DEFINITIONS

A. Indoor-Emissions-Restricted Products: All products in the following product categories, whether specified or not:
   1. Interior paints and coatings applied on site.
   2. Interior adhesives and sealants applied on site, including flooring adhesives.
   3. Flooring.
   4. Composite wood.
   5. Products making up wall and ceiling assemblies.
   6. Thermal and acoustical insulation.
   7. Free-standing furniture.
   8. Other products when specifically stated in the specifications.

B. VOC-Content-Restricted Products: All products in the following product categories, whether specified or not:
   1. Exterior and interior paints and coatings applied on site.
   2. Exterior and interior adhesives and sealants applied on site, including flooring adhesives.
   3. Wet-applied roofing and waterproofing.
   4. Other products when specifically stated in the specifications.

C. Interior of Building: Anywhere inside the exterior weather barrier.

D. Adhesives: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.

E. Sealants: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.

F. Inherently Non-Emitting Materials: Products composed wholly of minerals or metals, unless they include organic-based surface coatings, binders, or sealants; and specifically the following:
   1. Concrete.
   2. Clay brick.
   3. Metals that are plated, anodized, or powder-coated.
   4. Glass.
   5. Ceramics.

1.04 REFERENCE STANDARDS

A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; Current Edition.

B. ASTM D3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings; 2025.

C. BIFMA e3 - Furniture Sustainability Standard; 2024.

D. CAL (CDPH SM) - Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers Version 1.2; 2017.

E. CARB (ATCM) - Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products; Current Edition.

F. CARB (SCM) - Suggested Control Measure for Architectural Coatings; California Air Resources Board; 2020.

G. CHPS (HPPD) - High Performance Products Database; Current Edition.

H. CRI (GLP) - Green Label Plus Testing Program - Certified Products; Current Edition.

I. GreenSeal GS-36 - Standard for Adhesives for Commercial Use; 2025, with Editorial Revision (2026).

J. SCAQMD 1113 - Architectural Coatings; 1977, with Amendment (2016).

K. SCAQMD 1168 - Adhesive and Sealant Applications; 1989, with Amendment (2022).

L. SCS (CPD) - SCS Certified Products; Current Edition.

M. UL (GGG) - GREENGUARD Gold Certified Products; Current Edition.

1.05 SUBMITTALS

A. See Section 013300 - Submittals Procedures: for submittal procedures.

B. Product Data: For each VOC-restricted product used in the project, submit evidence of compliance.

C. Installer Certifications Regarding Prohibited Content: Require each installer of any type of product (not just the products for which VOC restrictions are specified) to certify that either 1) no adhesives, joint sealants, paints, coatings, or composite wood or agrifiber products have been used in the installation of installer's products, or 2) that such products used comply with these requirements.

1.06 QUALITY ASSURANCE

A. Indoor Emissions Standard and Test Method: CAL (CDPH SM), using Standard Private Office exposure scenario and the allowable concentrations specified in the method, and range of total VOC's after 14 days.
   1. Wet-Applied Products: State amount applied in mass per surface area.
   2. Paints and Coatings: Test tinted products, not just tinting bases.
   3. Evidence of Compliance: Acceptable types of evidence are the following;
      a. Current UL (GGG) certification.
      b. Current SCS (CPD) Floorscore certification.
      c. Current SCS (CPD) Indoor Advantage Gold certification.
      d. Current listing in CHPS (HPPD) as a low-emitting product.
      e. Current CRI (GLP) certification.
      f. Test report showing compliance and stating exposure scenario used.
   4. Product data submittal showing VOC content is NOT acceptable evidence.
   5. Manufacturer's certification without test report by independent agency is NOT acceptable evidence.

B. VOC Content Test Method: 40 CFR 59, Subpart D (EPA Method 24), or ASTM D3960, unless otherwise indicated.
   1. Evidence of Compliance: Acceptable types of evidence are:
      a. Report of laboratory testing performed in accordance with requirements.
      b. Published product data showing compliance with requirements.
      c. Certification by manufacturer that product complies with requirements.

C. Composite Wood Emissions Standard: CARB (ATCM) for ultra-low emitting formaldehyde (ULEF) resins.
   1. Evidence of Compliance: Acceptable types of evidence are:
      a. Current SCS "No Added Formaldehyde (NAF)" certification; www.scscertified.com.
      b. Report of laboratory testing performed in accordance with requirements.

c. Published product data showing compliance with requirements.
d. Certification by manufacturer that product complies with requirements.

D. Furnishings Emissions Standard and Test Method: BIFMA e3 Sections 7.6.1 and 7.6.2, tested in accordance with BIFMA M7.1.
1. Evidence of Compliance:
a. Test report showing compliance and stating exposure scenario used.

E. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

PART 2 PRODUCTS

2.01 MATERIALS

A. All Products: Comply with the most stringent of federal, State, and local requirements, or these specifications.

B. Indoor-Emissions-Restricted Products: Comply with Indoor Emissions Standard and Test Method, except for:
1. Composite Wood, Wood Fiber, and Wood Chip Products: Comply with Composite Wood Emissions Standard or contain no added formaldehyde resins.
2. Furnishings: Comply with Furnishings Emissions Standard and Test Method.
3. Inherently Non-Emitting Materials.

C. VOC-Content-Restricted Products: VOC content not greater than required by the following:
1. Adhesives, Including Flooring Adhesives: SCAQMD 1168 Rule.
2. Aerosol Adhesives: GreenSeal GS-36.
3. Joint Sealants: SCAQMD 1168 Rule.
4. Paints and Coatings: Each color; most stringent of the following:
a. 40 CFR 59, Subpart D.
b. SCAQMD 1113 Rule.
c. CARB (SCM).
5. Wet-Applied Roofing and Waterproofing: Comply with requirements for paints and coatings.

PART 3 EXECUTION

3.01 FIELD QUALITY CONTROL

A. Owner reserves the right to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to Owner.

B. Additional costs to restore indoor air quality due to installation of non-compliant products will be borne by Contractor Manager.

END OF SECTION 016116

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SECTION 016200 - MATERIAL AND EQUIPMENT

1. GENERAL CONDITIONS

   A. The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary and other Conditions, if any) and Division 1 as appropriate apply to the Work specified in this Section.

   B. Where work is to be executed under Separate Prime Contracts, the provisions of this Section apply to each Contract.

2. REQUIREMENTS INCLUDED

   A. All materials and equipment incorporated into the Work shall:

      1. be new;

      2. conform to applicable specifications and standards; and

      3 comply with size, make, type and quality specified, or as specifically approved in writing by the Architect.

   B. Manufactured and Fabricated Products shall conform to the following requirements:

      1. Designed, fabricated and assembled in accord with the best engineering and shop practices.

      2 Manufactured like parts of duplicate units to standard sizes and gauges, to be interchangeable.

      3. Two or more items of the same kind shall be identical, by the same manufacturer.

      4 Products shall be suitable for service conditions.

      5. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.

   C. Contractor shall not use materials or equipment for any purpose other than that for which it is designated or is specified.

   D. Materials removed from existing structures shall not be reused in the completed work unless specifically indicated or specified.

   E. For materials and equipment specifically indicated or specified to be reused in the Work:

      1. Contractor shall use special care on removal, handling storage and reinstallation, to assure proper function in the completed Work.

2. Arrange for transportation, storage and handling of products which require off-site storage, restoration or renovation. Pay all costs for such work.

3. MANUFACTURER'S INSTRUCTIONS

A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, Contractor shall obtain and distribute copies of such instructions to parties involved in the installation, including two copies to Construction Manager.

1. Maintain one set of complete instructions at the job site during installation and until completion.

B. Contractor shall handle, install, connect, clean, condition and adjust products in strict accord with such instructions and in conformity with specified requirements.

1. Should job conditions or specified requirements conflict with manufacturer's instructions, Contractor shall consult with Construction Manager for further instructions.

2. Contractor shall perform work in accord with manufacturer's instructions. Contractor shall not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

4. TRANSPORTATION AND HANDLING

A. Contractor shall arrange deliveries of Products in accord with construction schedules, coordinate to avoid conflict with work and conditions at the site.

1. Deliver Products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.

2. Contractor shall immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents and approved submittals, and that Products are properly protected and undamaged.

B. Contractor shall provide equipment and personnel to handle Products by methods to prevent soiling or damage to Products or packaging.

5. STORAGE AND PROTECTION

A. Contractor shall store Products in accord with manufacturer's instructions, with seals and labels intact and legible.

1. Contractor shall store Products subject to damage by the elements in weathertight enclosures.

2. Contractor shall maintain temperature and humidity within the ranges required by

manufacturer's instructions.

B. Exterior Storage

1. Contractor shall store fabricated Products above the ground, on blocking or skids, to prevent soiling or staining. Cover Products which are subject to deterioration with impervious sheet coverings; provide adequate ventilation to avoid condensation.

2. Contractor shall store loose granular materials in a well-drained area on soiled surfaces to prevent mixing with foreign matter.

C. Contractor shall arrange storage in a manner to provide easy access for inspection. Contractor shall make periodic inspections of stored Products to assure that Products are maintained under specified conditions, and free from damage or deterioration.

D. Contractor shall store flammable materials so as to prevent contact with flames and fire. Conform with manufacturer's recommendations and local laws. Pay particular attention to storage of:

1. Roof insulation.

2. Roofing materials, including solvents.

3. Paint materials.

4. Cleaning and other solvents.

5. Fuels.

E. Protection after Installation:

1. Contractor shall provide substantial coverings as necessary to protect installed Products from damage from traffic and subsequent construction operations. Remove when no longer needed.

6. SUBSTITUTIONS AND PRODUCT OPTIONS

A. Product List.

1. Within 30 days after Contract Date, Contractor shall submit to Construction Manager a complete list of major products proposed to be used, with the name of the manufacturer and the installing Contractor.

B. Contractor's Options.

1. For Products specified only by reference standard, Contractor shall select any Product

meeting that standard.

2. For Products specified by naming several Products or manufacturers, Contractor shall select any one of the Products or manufacturers named which complies with the specifications.

3. For Products specified by naming one or more Products or manufacturers and "or equal", Bidders must, during the bidding period, submit a request for substitutions for any Product or manufacturer not specifically named. See provisions in Paragraph 6.C, below.

4. For Products specified by naming only one Product and manufacturer, there is no option; and Contractor shall provide the precise Product specified.

C. Substitutions.

1. The materials, products and equipment described in the Bidding Documents establish a standard of quality, required function, dimension, and appearance to be met by any proposed substitution. The specification of a particular manufacturer or model number is not intended to be proprietary in any way. Substitutions of products for those named will be considered, providing that the Vendor certified that the function, quality, and performance characteristics of the material offered is equal or superior to that specified. It shall be the Bidder's responsibility to assure that the propose4d substitution will not affect the intent of the design, and to make any installation modifications required to accommodate the substitution.

2. Requests for substitutions shall be made in writing to the Architect at least ten days prior to the date of the Bid Opening. Such requests shall include a complete description of the proposed substitution, drawings, performance and test data, explanation of required installation modifications due the substitution, and any other information necessary for an evaluation. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval shall be final. The Architect is to notify Owner prior to any approvals.

3. Until a date no later than seven (7) days before the date Bids are due, Architect will consider written requests from bidders for substitution of Products. **The contractor will submit any substitution requests to the Construction Manager for transmittal to the Architect. The** architect will review requests and will notify Bidders in an Addendum if the requested substitution is acceptable.

4. Should the Bidder desire a substitution, it shall submit a separate request for each Product, supported with complete data, with drawings and samples as appropriate, including:

   a. Comparison of the qualities of the proposed substitution with that specified.

   b. Changes required in other elements of the Work because of the substitution.

   c. Effect on the construction schedule.

d. Cost data comparing the proposed substitution with the Product specified.

e. Any required license fees or royalties.

f. Availability of maintenance service, and source of replacement materials.

5. Architect, in its sole discretion, shall be the judge of the acceptability of the proposed substitution.

6. A request for a substitution constitutes a representation that Bidder:

a. has investigated the proposed Product and determined that it is equal to or superior in all respects to that specified;

b. will provide the same warranties or bonds for the substitution as for the Product specified;

c. will coordinate the installation of an accepted substitution into the Work, and make such other changes as may be required to make the Work complete in all respects; and

d. waives all claims for additional costs, under his responsibility, which may subsequently become apparent.

D. Architect will review requests for substitutions with reasonable promptness, and notify Bidders, in writing, through the Construction Manager, of the decision to accept or reject the requested substitution. Any decision to accept a substitution must be confirmed in an Addendum issued during the bidding period in order to be valid. Oral approvals will not be binding.

E. The Architect shall have no obligation to consider any substitutions after the Contract award.

END OF SECTION

SECTION 017123 - FIELD ENGINEERING

1. GENERAL PROVISIONS

   A. The general provisions of the Contract, including the Conditions of the Contract, (General, Supplementary and other Conditions, if any) and Division 1 as appropriate, apply to the Work specified in this Section.

   B. The provisions of the section apply to all contracts.

2. SURVEY

   A. The Owner has had a site survey prepared by Becker Morgan Group. This information has been included in this Bid Pac.

3. CONSTRUCTION MANAGER

   A. The Construction Manager will establish a bench mark and base line from which structures and grades shall be laid out by Contractors as designated in this section. The total extent of this layout is shown on the site drawings. One bench elevation shall be provided.

END OF SECTION

SECTION 017329 - CUTTING AND PATCHING

1. GENERAL

A. Definition: "Cutting and Patching" includes cutting into existing construction to provide for the installation or performance of other work and subsequent fitting and patching required to restore surfaces to their original condition.

B. Refer to Other Sections of these specifications for specific cutting and patching requirements and limitations applicable to individual units of work.

C. Structural Work: Do not cut and patch structural work in a manner resulting in a reduction of load carrying capacity or load deflection ratio. Submit proposal and request and obtain Architect's/Engineer's approval before proceeding with cut and patch of structural work.

D. Operational/Safety Limitations: Do not cut and patch operational elements and safety components in a manner resulting in decreased performance, shortened useful life, or increased maintenance. Submit proposals and requests and obtain Architect's/Engineer's approval before proceeding with cut and patches of structural work.

E. Visual/Quality Limitations: Do not cut and patch work exposed to view (exterior and interior) in manner resulting in noticeable reduction of aesthetic qualities and similar qualities, as judged by Architect/Engineer.

1. Engage the original Installer/Fabricator, or (if not available) an acceptable equivalent entity, to cut and patch the following categories of exposed work but not limited to

2. Exterior wall materials, ie., curtain wall

3. Finish floor materials, ie., substrate, carpet, ceramic tile

4. Walls

5. Ceilings

F. Limitation on Approvals: Architect's/Engineer's approval to proceed with cutting and patching does not waive right to later acquire removal/replacement of work found to be cut and patched in an unsatisfactory manner, as judged by Architect/Engineer.

2. MATERIALS

A. General: Use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials for cutting and patching that will result in equal or better performance characteristics.

3. EXECUTION

A. Inspection: Before cutting, examine surfaces to be cut and patched and conditions under which the work is to be performed. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding with the work.

B. Temporary Support: To prevent failure provide temporary support of work to be cut.

C. Protection: Protect other work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for that part of the project that may be exposed during cutting and patching operations.

1. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

2. Take precautions not to cut existing pipe, conduit or duct serving the building but scheduled to be relocated until provisions have been made to bypass them.

D. Cutting: Cut the work using methods that are least likely to damage work to be retained or adjoining work. Where possible review proposed procedures with the original installer; comply with original installer's recommendations.

1. Where cutting is required use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut through concrete and masonry using a cutting machine such as a carborundum saw or core drill. Cut holes and slots neatly to size required with minimum disturbance of adjacent work. To avoid marring existing finished surfaces, cut and drill from the exposed or finished side into concealed surfaces. Temporarily cover openings when not in use.

E. Patching: Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work.

1. Restore exposed finishes of patched areas and where necessary extend finish restoration into retained adjoining work in a manner which will eliminate evidence of patching and finishing.

END OF SECTION

WASTE MANAGEMENT PROGRESS REPORT

	Disposed in Municipal Solid Waste Landfill	Diverted From Landfill by Recycling, Salvage or Reuse		
Material Category		Recycled	Salvaged	Reused
1. Acoustical Ceiling Tiles				
2. Asphalt				
3. Asphalt Shingles				
4. Cardboard Packaging				
5. Carpet and Carpet Pad				
6. Concrete				
7. Drywall				
8. Fluorescent Lights and Ballasts				
9. Land Clearing Debris (vegetation, stumpage, dirt)				
10. Metals				
11. Paint (through hazardous waste outlets)				
12. Wood				
13. Plastic Film (sheeting, shrink wrap, packaging)				
14. Window Glass				
15. Field Office Waste (office paper, aluminum cans, glass, plastic, and coffee cardboard)				
16. Other (insert description)				
17. Other (insert description)				
Total (In Weight)		(TOTAL OF ALL ABOVE VALUES – IN WEIGHT)		
	Percentage of Waste Diverted	(TOTAL WASTE DIVIDED BY TOTAL DIVERTED)		

SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT

PART 1 – GENERAL

1.1 SUMMARY

A. Section includes: Administrative and procedural requirements for construction waste management activities.

1.2 DEFINITIONS

A. Construction, Demolition, and Land clearing (CDL) Waste: Includes all non-hazardous solid wastes resulting from construction, remodeling, alterations, repair, demolition and land clearing. Includes material that is recycled, reused, salvaged or disposed as garbage.

B. Salvage: Recovery of materials for on-site reuse, sale or donation to a third party.

C. Reuse: Making use of a material without altering its form. Materials can be reused on-site or reused on other projects off-site. Examples include, but are not limited to the following: Crushing or grinding of concrete for use as sub-base material. Chipping of land clearing debris for use as mulch.

D. Recycling: The process of sorting, cleaning, treating, and reconstituting materials for the purpose of using the material in the manufacture of a new product.

E. Source-Separated CDL Recycling: The process of separating recyclable materials in separate containers as they are generated on the job-site. The separated materials are hauled directly to a recycling facility or transfer station.

F. Co-mingled CDL Recycling: The process of collecting mixed recyclable materials in one container on-site. The container is taken to a material recovery facility where materials are separated for recycling.

G. Approved Recycling Facility: Any of the following:

1. A facility that can legally accept CDL waste materials for the purpose of processing the materials into an altered form for the manufacture of a new product.

2. Material Recovery Facility: A general term used to describe a waste-sorting facility. Mechanical, hand-separation, or a combination of both procedures, are used to recover recyclable materials.

H. Universal waste components (UWC) are as follows: electric motors, PCB ballasts, non PCB ballasts, capacitors, contactors, circuit breakers, elemental and liquid mercury containing articles, transformers, lead acid batteries, fluorescent light bulbs, and all HID light bulbs.

1.3 SUBMITTALS

A. Contractor shall develop a Waste Management Plan: Submit 3 copies of plan within 14 days of date established for the **Notice to Proceed**.

B. Contractor shall provide Waste Management Report: Concurrent with each Application for Payment, submit **3** copies of report.

1.4 PERFORMANCE REQUIREMENTS

A. General: Divert a minimum of **75%** CDL waste, by weight, from the landfill by one, or a combination of the following activities:

1. Salvage
2. Reuse
3. Source-Separated CDL Recycling
4. Co-mingled CDL Recycling

B. CDL waste materials that can be salvaged, reused or recycled include, but are not limited to, the following:

1. Acoustical ceiling tiles
2. Asphalt
3. Asphalt shingles
4. Cardboard packaging
5. Carpet and carpet pad
6. Concrete
7. Drywall
8. Fluorescent lights and ballasts
9. Land clearing debris (vegetation, stumpage, dirt)
10. Metals
11. Paint (through hazardous waste outlets)
12. Wood
13. Plastic film (sheeting, shrink wrap, packaging)
14. Window glass
15. Wood
16. Field office waste, including office paper, aluminum cans, glass, plastic, and office cardboard.

1.5 QUALITY ASSURANCE

A. Waste Management Coordinator Qualifications: Experienced firm, with a record of successful waste management coordination of projects with similar requirements, that employs a LEED Accredited Professional, certified by the USGBC as waste management coordinator.

B. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.

C. Regulatory Requirements: Conduct construction waste management activities in accordance with hauling and disposal regulations of all authorities having jurisdiction and all other applicable laws and ordinances.

D. Preconstruction Conference: Schedule and conduct meeting at Project site prior to construction activities.

1. Attendees: Inform the following individuals, whose presence is required, of date and time of meeting.

a. Owner
b. Architect
c. Contractor's superintendent
d. Major subcontractors
e. Waste Management Coordinator
f. Other concerned parties.

2. Agenda Items: Review methods and procedures related to waste management including, but not limited to, the following:

   a. Review and discuss waste management plan including responsibilities of Waste Management Coordinator.
   b. Review requirements for documenting quantities of each type of waste and its disposition.
   c. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
   d. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
   e. Review waste management requirements for each trade.

3. Minutes: Record discussion. Distribute meeting minutes to all participants.
   Note: If there is a Project Architect, they will perform this role.

1.6 WASTE MANAGEMENT PLAN – Contactor shall develop and document the following:

A. Develop a plan to meet the requirements listed in this section at a minimum. Plan shall consist of waste identification, waste reduction plan and cost/revenue analysis. Distinguish between demolition and construction waste. Indicate quantities by weight throughout the plan.

B. Indicate anticipated types and quantities of demolition, site-cleaning and construction waste generated by the project. List all assumptions made for the quantities estimates.

C. List each type of waste and whether it will be salvaged, recycled, or disposed of in an landfill. The plan should included the following information:

   1. Types and estimated quantities, by weight, of CDL waste expected to be generated during demolition and construction.

   2. Proposed methods for CDL waste salvage, reuse, recycling and disposal during demolition including, but not limited to, one or more of the following:

      a. Contracting with a deconstruction specialist to salvage materials generated,
      b. Selective salvage as part of demolition contractor’s work,
      c. Reuse of materials on-site or sale or donation to a third party.

   3. Proposed methods for salvage, reuse, recycling and disposal during construction including, but not limited to, one or more of the following:

      a. Requiring subcontractors to take their CDL waste to a recycling facility;
      b. Contracting with a recycling hauler to haul recyclable CDL waste to an approved recycling or material recovery facility;
      c. Processing and reusing materials on-site;

d. Self-hauling to a recycling or material recovery facility.

4. Name of recycling or material recovery facility receiving the CDL wastes.

5. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on project site where materials separation will be located.

D. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Include the following:

1. Total quantity of waste.
2. Estimated cost of disposal (cost per unit). Include hauling and tipping fees and cost of collection containers for each type of waste.
3. Total cost of disposal (with no waste management).
4. Revenue from salvaged materials.
5. Revenue from recycled materials.
6. Savings in hauling and tipping fees by donating materials.
7. Savings in hauling and tipping fees that are avoided.
8. Handling and transportation costs. Including cost of collection containers for each type of waste.
9. Net additional cost or net savings from waste management plan.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 CONSTRUCTION WASTE MANAGEMENT, GENERAL

A. Provide containers for CDL waste that is to be recycled clearly labeled as such with a list of acceptable and unacceptable materials. The list of acceptable materials must be the same as the materials recycled at the receiving material recovery facility or recycling processor.

B. The collection containers for recyclable CDL waste must contain no more than 10% non-recyclable material, by volume.

C. Provide containers for CDL waste that is disposed in a landfill clearly labeled as such.

D. Use detailed material estimates to reduce risk of unplanned and potentially wasteful cuts.

E. To the greatest extent possible, include in material purchasing agreements a waste reduction provision requesting that materials and equipment be delivered in packaging made of recyclable material, that they reduce the amount of packaging, that packaging be taken back for reuse or recycling, and to take back all unused product. Insure that subcontractors require the same provisions in their purchase agreements.

F. Conduct regular visual inspections of dumpsters and recycling bins to remove contaminants.

3.2 SOURCE SEPARATION

A. General: Contractor shall separate recyclable materials from CDL waste to the maximum extent possible.

Separate recyclable materials by type.

1. Provide containers, clearly labeled, by type of separated materials or provide other storage method for managing recyclable materials until they are removed from Project site.
2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water and to minimize pest attraction. Cover to prevent windblown dust.
3. Stockpile materials away from demolition area. Do not store within drip line of remaining trees.
4. Store components off the ground and protect from weather.

3.3 CO-MINGLED RECYCLING

A. General: Do not put CDL waste that will be disposed in a landfill into a co-mingled CDL waste recycling container.

3.4 REMOVAL OF CONSTRUCTION WASTE MATERIALS

A. Remove CDL waste materials from project site on a regular basis. Do not allow CDL waste to accumulate on-site.

B. Transport CDL waste materials off Owner's property and legally dispose of them.

C. Burning of CDL waste is not permitted.

3.5 UNIVERSAL WASTE DIVERSION

A. Remove all universal waste from fixtures, panels, and related devices for proper diversion and reclamation.

B. Store all universal waste in containers provided by contact person within facilities operations.

C. Store all universal waste in a secured location and request periodic removal from assigned contact person.

D. Exemption: electric motors, circuit breakers, transformers and lighting contactors are exempt from this provision provided the contractor chooses to salvage or reuse the components.

E. No identified universal waste will be discarded into the waste stream.

END OF SECTION

WASTE MANAGEMENT PROGRESS REPORT				
	DISPOSED IN MUNICIPAL SOLID WASTE LANDFILL	**DIVERTED FROM LANDFILL BY RECYCLING, SALVAGE OR REUSE**		
MATERIAL CATEGORY		Recycled	Salvaged	Reused
1. Acoustical Ceiling Tiles				
2. Asphalt				
3. Asphalt Shingles				
4. Cardboard Packaging				
5. Carpet and Carpet Pad				
6. Concrete				
7. Drywall				
8. Fluorescent Lights and Ballasts				
9. Land Clearing Debris (vegetation, stumpage, dirt)				
10. Metals				
11. Paint (through hazardous waste outlets)				
12. Wood				
13. Plastic Film (sheeting, shrink wrap, packaging)				
14. Window Glass				
15. Field Office Waste (office paper, aluminum cans, glass, plastic, and coffee cardboard)				
16. Other (insert description)				
17. Other (insert description)				
Total (In Weight)		(TOTAL OF ALL ABOVE VALUES – IN WEIGHT)		
	Percentage of Waste Diverted	(TOTAL WASTE DIVIDED BY TOTAL DIVERTED)		

Reset Print Form

DELAWARE FORM 8821DE

Authorization to Release Tax Information

Completion and submission of this form authorizes the Delaware Division of Revenue to release confidential information of the Taxpayer(s) named below to the authorized person(s) or organization named below for the tax type(s) specified below. This form does not give Power of Attorney and does not grant the authorized person(s) or organization any powers of representation. Unauthorized disclosure of tax information is a criminal offense.

Print or Type

Read the instructions below before completing this form.

Your name or name of entity

Social Security or Federal Employer ID number

Spouse's name, if joint (or corporate officer, partner or fiduciary if a business)

Spouse's Social Security number (if a joint return)

Street address

City State ZIP Code -

Authorized Person or Organization

I authorize the following person or organization to inspect and/or receive private and non-public information in regard to the tax types and periods provided below.

Name of person or organization to receive tax information

Name of firm (if applicable)

Street address

City State ZIP Code -

Phone Number Fax Number

Tax Information

The above person or organization is authorized to receive the following tax information *(check all that apply)*:

Type of Tax	Year(s) or Period(s)			
☐ Individual Income	from	MM DD YY	to	MM DD YY
☐ Corporate Income	from	MM DD YY	to	MM DD YY
☐ Pass-through Return	from	MM DD YY	to	MM DD YY
☐ Gross Receipts	from	MM DD YY	to	MM DD YY
☐ Withholding	from	MM DD YY	to	MM DD YY
☐ Other (*please specify*):	from	MM DD YY	to	MM DD YY

The authorization to release tax information is not valid until it is signed and dated. It will expire 60 days after the information is released. By signing this form, I hereby certify that the Delaware Division of Revenue is authorized to release any and all confidential information concerning the above mentioned release any and all confidential information concerning the above mentioned Taxpayer under penalty of law. A copy of this form will be mailed to the individual(s) authorizing the release.

Sign Here

Your Signature	Date	Spouse's Signature (if joint)	Date
	MM DD YY		MM DD YY
Print Name		Print Spouse's Name (if joint)	
Print Title (if applicable)		Phone	
Phone			

Mail to: Delaware Division of Revenue, 820 North French Street, Wilmington, DE 19801

Form 8821DE Instructions

Purpose of this form

You must complete, sign and return this form if you want to authorize a person ororganization to inspect and/or receive certain private or nonpublic information concerning your state taxes. By completing and signing this form, you are authorizing the Division of Revenueto release tax information to the person or organization you have indicated. Revenue *will* accept copies of the form,including those from a FAX machine. This authorization will expire 60 days after the information is released to the person or organization you have indicated.

Your Signature

The authorization to release tax information is not valid until it is signed and dated. Your spouse must also sign if joint returns are listed.Your signature at the bottom of this form authorizes the individual or organization you designate to only be able to inspect and/or receive confidential tax information on your behalf.

Questions?

If you have questions on how to complete this form or to fax this form, call (302) 577-8200 for a staff contact who will provide you with a fax number. You must include a Division of Revenue contact name on all faxed authorization forms.

SECTION 017700 – CONTRACT CLOSEOUT

1. DESCRIPTION OF REQUIREMENTS

   A. Provisions of this section apply to the procedural requirements for the actual close out of the Work, not to the administrative matters such as final payment or the change over of insurance. Close out requirements relate to both substantial and final completion of the Work; they also apply to individual portions of completed work as well as the Total work. Specific requirements contained in other sections have precedence over the general requirements contained in this section.

2. PROCEDURES AT SUBSTANTIAL COMPLETION

   A. Prerequisites: Contractor shall comply with the General Conditions and complete the following before requesting inspection of the Work, or a designated portion of the Work, for certification of substantial completion:

      1. submit executed warranties, workmanship bonds, maintenance agreements, inspection certificates, releases of liens, tax certification and similar required documentation for specific units of work, and documents needed to enable Owner's unrestricted occupancy and use;

      2. submit record documentation, maintenance manuals, tools, spare parts, keys and similar operational items;

      3. complete instructions of Owner's operating personnel, and start up of systems; and

      4. complete final cleaning and remove temporary facilities and tools.

   B. Inspection Procedures: Upon receipt of Contractor's request, Architect/Engineer will either proceed with inspection or advise Construction Manger of prerequisites not fulfilled. Following initial inspection, Architect/Engineer will either prepare certificate of substantial completion, or advise Construction Manager of work which must be performed prior to issuance of certificate. The Architect/Engineer will repeat the inspection when requested and assure that the work has been substantially completed. Results of the completed inspection will form the initial "punch list" for final acceptance.

   C. Punch List Procedures: Each Contractor shall be given a copy of the punch list with its appropriate work identified. Each Contractor shall be given 9 (nine) calendar work days to complete their punch list work. On the 10th day or as determined by the Construction Manager the Construction Manager shall employ other Contractors, as required, to complete any incomplete punch list work and retain from the appropriate Contractors retainage all costs incurred.

3. PROCEDURES AT FINAL ACCEPTANCE

   A. Reinspection Procedure: The Architect/Engineer will reinspect the Work upon receipt of the

Contractor's notice that, except for those items whose completion has been delayed due to circumstances that are acceptable to the Architect/Engineer, the Work has been completed, including punch list items from earlier inspections. Upon completion of reinspection, the Architect/Engineer will either recommend final acceptance and final payment, or will advise the Contractor of work not completed or obligations not fulfilled as required for final acceptance. If necessary, this procedure will be repeated.

4. RECORD DOCUMENTATION

A. Record Drawings: Contractor shall maintain a complete set of either blue or black line prints of the contract documents and shop drawings for record mark-up purposes throughout the Contract Time. Contractor shall mark up these drawings during the course of the Work to show both changes and the actual installation, in sufficient detail to form a complete record for Owner's purposes giving particular attention to work that will be concealed and difficult to measure and record at a later date, and Work which may require servicing or replacement during the life of the project. Require the entities marking prints to sign and date each mark up. Bind prints into manageable sets, with durable paper cover, appropriately labeled.

B. Installation, Operation and Maintenance Manual: Contractor shall provide 3-ring vinyl covered binders containing required maintenance manuals, properly identified and indexed and including operating and maintenance instructions extended to cover emergencies, spare parts, warranties, inspection procedures, diagrams, safety, security, and similar appropriate data for each system of equipment item.

C. State Tax Certification: Contractor shall provide recent Delaware State Tax Certification form as issued by State of Delaware, Department of Finance, Division of Revenue, Carvel State Office Building, 820 N. French Street, Wilmington, Delaware 19801. To obtain this certificate, the contractor will be required to provide the Division of Revenue with the completed State Form 8821 DE along with a processing fee of $40.

D. AIA Documents: Contractors shall provide the following AIA documents with their final payment application submission:
- AIA G732, Application for Payment for 100% Complete
- AIA G732, Final Application for Payment for Retainage
- AIA G734-CMA, Certificate of Substantial Completion – 4 originals
- AIA G706, Affidavit of Payment of Debts & Claims
- AIA G706A, Affidavit of Release of Liens
- AIA G707, Consent of Surety

E. Release of Liens: Contractors shall provide the following release of liens with their final payment application submission:
- Prime Contractor's Release of Liens
- Subcontractors' & Suppliers' Release of Liens (major subs and suppliers)

5. GENERAL CLOSE OUT REQUIREMENTS

A. Operator Instruction: Contractor shall require each Installer of systems requiring continued operation and maintenance by Owner's operating personnel, to provide on location instruction to Owner's personnel, sufficient to ensure safe, secure, efficient, non-failing utilization and operation of systems. Contractor shall provide instructions for the following categories of work:

1. Mechanical/electrical/electronic systems (not limited to work of Division 15 and 16).

2. Roofing, flashing, joint sealers.

3. Floor finishes.

4. Door hardware

6. FINAL CLEANING

A. At the time of project close out Contractor shall clean or re-clean the Work to the condition expected from a normal, commercial building cleaning and maintenance program. Complete the following cleaning operations before requesting the Architect/Engineer's inspection for certification of substantial completion:

1. Remove non-permanent protections and labels.

2. Polish glass.

3. Clean exposed finishes.

4. Touch up minor finish damage.

5. Clean or replace mechanical systems filters.

6. Remove debris.

7. Broom clean unoccupied spaces.

8. Sanitize plumbing and food service facilities.

9. Clean light fixtures and replace burned out lamps.

10. Sweep and wash paved areas.

11. Police yards and grounds.

END OF SECTION

SECTION 017900
DEMONSTRATION AND TRAINING

PART 1 GENERAL

1.01 SUMMARY

A. Demonstration of products and systems to be commissioned and where indicated in specific specification sections.

B. Training of Owner personnel in operation and maintenance is required for:
   1. All software-operated systems.
   2. HVAC systems and equipment.
   3. Plumbing equipment.
   4. Electrical systems and equipment.
   5. Landscape irrigation.
   6. Items specified in individual product Sections.

C. Training of Owner personnel in care, cleaning, maintenance, and repair is required for:
   1. Roofing, waterproofing, and other weather-exposed or moisture protection products.
   2. Finishes, including flooring, wall finishes, ceiling finishes.
   3. Fixtures and fittings.
   4. Items specified in individual product Sections.

1.02 RELATED REQUIREMENTS

A. Section 017800 - Closeout Submittals: Operation and maintenance manuals.

B. Other Specification Sections: Additional requirements for demonstration and training.

1.03 SUBMITTALS

A. See Section 013300 - Submittal Proceedures, for submittal procedures; except:
   1. Make all submittals specified in this section, and elsewhere where indicated for commissioning purposes, directly to the Commissioning Provider.
   2. Submit one copy to the Commissioning Provider, not to be returned.
   3. Make commissioning submittals on time schedule specified by Commissioning Provider.
   4. Submittals indicated as "Draft" are intended for the use of the Commissioning Provider in preparation of overall Training Plan; submit in editable .rtf or .docx electronic format unless otherwise approved.

B. Draft Training Plans: Owner will designate personnel to be trained; tailor training to needs and skill-level of attendees.
   1. Submit to Contractor Manager for transmittal to Owner.
   2. Submit to Commissioning Provider for review and inclusion in overall training plan.
   3. Submit not less than four weeks prior to start of training.
   4. Revise and resubmit until acceptable.
   5. Provide an overall schedule showing all training sessions.
   6. Include at least the following for each training session:
      a. Identification, date, time, and duration.
      b. Description of products and/or systems to be covered.
      c. Name of firm and person conducting training; include qualifications.
      d. Intended audience, such as job description.
      e. Objectives of training and suggested methods of ensuring adequate training.
      f. Methods to be used, such as classroom lecture, live demonstrations, hands-on, etc.
      g. Media to be used, such a slides, hand-outs, etc.
      h. Training equipment required, such as projector, projection screen, etc., to be provided by Contractor Manager.

C. Training Manuals: Provide training manual for each attendee; allow for minimum of two attendees per training session.

1. Include applicable portion of O&M manuals.
2. Include copies of all hand-outs, slides, overheads, video presentations, etc., that are not included in O&M manuals.
3. Provide one extra copy of each training manual to be included with operation and maintenance data.

D. Training Reports:
1. Identification of each training session, date, time, and duration.
2. Sign-in sheet showing names and job titles of attendees.
3. List of attendee questions and written answers given, including copies of and references to supporting documentation required for clarification; include answers to questions that could not be answered in original training session.
4. Include Commissioning Provider's written acceptance of training session.

E. Video Recordings: Submit digital video recording of each demonstration and training session for Owner's subsequent use.
1. Format: DVD Disc.
2. Label each disc and container with session identification and date.

1.04 QUALITY ASSURANCE

A. Instructor Qualifications: Familiar with design, operation, maintenance and troubleshooting of the relevant products and systems.
1. Provide as instructors the most qualified trainer of those contractors and/or installers who actually supplied and installed the systems and equipment.
2. Where a single person is not familiar with all aspects, provide specialists with necessary qualifications.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 DEMONSTRATION - GENERAL

A. Demonstrations conducted during system start-up do not qualify as demonstrations for the purposes of this section, unless approved in advance by Owner.

B. Demonstrations conducted during Functional Testing need not be repeated unless Owner personnel training is specified.

C. Demonstration may be combined with Owner personnel training if applicable.

D. Operating Equipment and Systems: Demonstrate operation in all modes, including start-up, shut-down, seasonal changeover, emergency conditions, and troubleshooting, and maintenance procedures, including scheduled and preventive maintenance.
1. Perform demonstrations not less than two weeks prior to Substantial Completion.
2. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.

E. Non-Operating Products: Demonstrate cleaning, scheduled and preventive maintenance, and repair procedures.
1. Perform demonstrations not less than two weeks prior to Substantial Completion.

3.02 TRAINING - GENERAL

A. Conduct training on-site unless otherwise indicated.

B. Owner will provide classroom and seating at no cost to Contractor Manager.

C. Do not start training until Functional Testing is complete, unless otherwise specified or approved by the Commissioning Provider.

D. Provide training in minimum two hour segments.

E. The Commissioning Provider is responsible for determining that the training was satisfactorily completed and will provide approval forms.

F. Training schedule will be subject to availability of Owner's personnel to be trained; re-schedule training sessions as required by Owner; once schedule has been approved by Owner failure to conduct sessions according to schedule will be cause for Owner to charge Contractor Manager for personnel "show-up" time.

G. Review of Facility Policy on Operation and Maintenance Data: During training discuss:
   1. The location of the O&M manuals and procedures for use and preservation; backup copies.
   2. Typical contents and organization of all manuals, including explanatory information, system narratives, and product specific information.
   3. Typical uses of the O&M manuals.

H. Product- and System-Specific Training:
   1. Review the applicable O&M manuals.
   2. For systems, provide an overview of system operation, design parameters and constraints, and operational strategies.
   3. Review instructions for proper operation in all modes, including start-up, shut-down, seasonal changeover and emergency procedures, and for maintenance, including preventative maintenance.
   4. Provide hands-on training on all operational modes possible and preventive maintenance.
   5. Emphasize safe and proper operating requirements; discuss relevant health and safety issues and emergency procedures.
   6. Discuss common troubleshooting problems and solutions.
   7. Discuss any peculiarities of equipment installation or operation.
   8. Discuss warranties and guarantees, including procedures necessary to avoid voiding coverage.
   9. Review recommended tools and spare parts inventory suggestions of manufacturers.
   10. Review spare parts and tools required to be furnished by Contractor Manager.
   11. Review spare parts suppliers and sources and procurement procedures.

I. Be prepared to answer questions raised by training attendees; if unable to answer during training session, provide written response within three days.

END OF SECTION 017900

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SECTION 019113
GENERAL COMMISSIONING REQUIREMENTS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

A. This Section includes general requirements that apply to implementation of commissioning without regard to systems, subsystems, and equipment being commissioned.

B. Related Sections include the following:

1. Division 01 Section "HVAC Commissioning Requirements" for specific requirements for commissioning HVAC systems.

2. Division 01 Section "Electrical Commissioning Requirements" for specific requirements for commissioning electrical systems.

3. Division 01 Section "Plumbing System Commissioning Requirements" for specific requirements for commissioning Plumbing systems.

4. Division 01 Section "Contract Closeout" for specific requirements for closeout at substantial and final completion.

5. Division 01 Section "Contract Closeout" for Specific Requirements for training and demonstration of systems to Owner.

6. Division 01 Section "Contract Closeout" for Specific Requirements related to the Preparation of systems operation and maintenance manuals.

1.03 DEFINITIONS

A. CxA: Commissioning Authority.

B. OPR: Owner's Project Requirements.

C. Systems, Subsystems, and Equipment: Where these terms are used together or separately, they shall mean "as-built" systems, subsystems, and equipment.

D. TAB: Testing, Adjusting, and Balancing.

1.04 COMMISSIONING TEAM

A. Members Appointed by Contractor(s): Individuals, each having authority to act on behalf of the entity he or she represents, explicitly organized to implement the commissioning process through coordinated actions. The commissioning team shall consist of, but not be limited to, representatives of Contractor, including Project superintendent and subcontractors, installers, suppliers, and specialists deemed appropriate by the CxA.

B. Members Appointed by Owner:

1. CxA: The designated person, company, or entity that plans, schedules, and coordinates the commissioning team to implement the commissioning process. Owner will engage the CxA under a separate contract.

2. All contractor commissioning requirements and costs associated with commissioning the project shall be included in the base bid.

3. Representatives of the facility user and operation and maintenance personnel.

4. Architect and Engineering design professionals.

1.05 OWNER'S RESPONSIBILITIES

A. Assign operation and maintenance personnel and schedule them to participate in commissioning team activities including, but not limited to, the following:

1. Coordination meetings.

2. Training in operation and maintenance of systems, subsystems, and equipment.

3. Testing meetings.

4. Demonstration of operation of systems, subsystems, and equipment.

1.06 CONTRACTOR'S RESPONSIBILITIES

A. Provide utility services required for the commissioning process.

B. Contractor shall assign representatives with expertise and authority to act on behalf of the Contractor and schedule them to participate in and perform commissioning team activities including, but not limited to, the following:

1. Participate in commissioning and construction-phase coordination meetings.

2. Participate in maintenance orientation and inspection.

3. Participate in operation and maintenance training sessions.

4. Participate in final review at acceptance meeting.

5. Certify that Work is complete and systems are operational according to the Contract Documents, including calibration of instrumentation and controls.

6. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.

7. Review and approve final commissioning documentation.

8. Certify that all pre-test work and pre-testing of functional performance tests are complete and operational prior to scheduling performed testing by CxA. Submit completed functional performance test forms with data from pre-testing.

9. During functional performance testing, a representative from the mechanical contractor, controls contractor, and test/balance engineer must be present and

participate in testing.

C. Subcontractors shall assign representatives with expertise and authority to act on behalf of subcontractors and schedule them to participate in and perform commissioning team activities including, but not limited to, the following:

1. Pre-test all systems/equipment prior to engaging CxA for Functional Performance Testing.

2. Participate in commissioning and construction-phase coordination meetings.

3. Participate in maintenance orientation and inspection.

4. Participate in procedures meeting for testing.

5. Participate in final review at acceptance meeting.

6. Provide schedule for operation and maintenance data submittals, equipment startup, and testing to CxA for incorporation into the commissioning plan. Update schedule on a weekly basis throughout the construction period.

7. Provide information to the CxA for developing construction-phase commissioning plan.

8. Participate in training sessions for Owner's operation and maintenance personnel.

9. Provide updated Project Record Documents to the CxA on a daily basis.

10. Gather and submit operation and maintenance data for systems, subsystems, and equipment to the CxA, as specified in Division 01 Section "Operation and Maintenance Data."

11. Provide technicians who are familiar with the construction and operation of installed systems and who shall develop specific test procedures and participate in testing of installed systems, subsystems, and equipment.

12. The test/balance subcontractor, mechanical contractor, and automatic temperature controls subcontractor must be on-site and provide assistance during all functional performance testing.

D. Contractors and subcontractors must pre-inspect and pre-test all equipment and systems prior to requesting functional performance testing by the CxA. All pre-start/start-up checklists and functional performance test forms must be completed and submitted to Engineer prior to scheduling formal functional performance testing.

1.07 CXA'S RESPONSIBILITIES

A. Organize and lead the commissioning team.

B. Prepare a construction-phase commissioning plan. Collaborate with Contractor and with subcontractors to develop test and inspection procedures. Include design changes and scheduled commissioning activities coordinated with overall Project schedule. Identify commissioning team member responsibilities, by name, firm, and trade specialty, for performance of each commissioning task.

C. Convene commissioning team meetings for the purpose of coordination, communication, and conflict resolution; discuss progress of the commissioning processes. Responsibilities include arranging for facilities, preparing agenda and attendance lists, and notifying participants. The CxA shall prepare and distribute minutes to commissioning team members and attendees within five workdays of the commissioning meeting.

D. At a mutually agreed upon time, conduct an initial construction-phase coordination meeting for the purpose of reviewing the commissioning activities and establishing tentative schedules for operation and maintenance submittals; operation and maintenance training sessions; TAB Work; and Project completion.

E. Observe and inspect construction and report progress and deficiencies. In addition to compliance with the Contract Documents, inspect systems and equipment installation for adequate accessibility for maintenance and component replacement or repair.

F. Prepare Project-specific test and inspection procedures and checklists.

G. Schedule, direct, witness, and document tests, inspections, and systems startup.

H. Compile test data, inspection reports, and certificates and include them in the systems manual and commissioning report.

I. Certify date of acceptance and startup for each item of equipment for start of warranty periods.

J. Review Project Record Documents for accuracy. Request revisions from Contractor to achieve accuracy. Project Record Documents requirements are specified in Division 01 Section "Project Record Documents."

K. Review and comment on operation and maintenance documentation and systems manual outline for compliance with the Contract Documents. Operation and maintenance documentation requirements are specified in Division 01 Section "Operation and Maintenance Data."

L. Assemble the final commissioning documentation, including the commissioning report and Project Record Documents.

1.08 COMMISSIONING DOCUMENTATION

A. Commissioning Plan: A document, prepared by CxA, that outlines the schedule, allocation of resources, and documentation requirements of the commissioning process, and shall include, but is not limited to the following:

1. Plan for delivery and review of submittals, systems manuals, and other documents and reports. Identification of the relationship of these documents to other functions and a detailed description of submittals that are required to support the commissioning processes. Submittal dates shall include the latest date approved submittals must be received without adversely affecting commissioning plan.

2. Description of the organization, layout, and content of commissioning documentation (including systems manual) and a detailed description of documents to be provided along with identification of responsible parties.

3. Identification of systems and equipment to be commissioned.

4. Description of schedules for testing procedures along with identification of parties involved in performing and verifying tests.

5. Identification of items that must be completed before the next operation can proceed.

6. Description of responsibilities of commissioning team members.

7. Description of observations to be made.

8. Description of requirements for operation and maintenance training, including required training materials.

9. Description of expected performance for systems, subsystems, equipment, and controls.

10. Schedule for commissioning activities with specific dates coordinated with overall construction schedule.

11. Identification of installed systems, subsystems, and equipment, including design changes that occurred during the construction phase.

12. Process and schedule for documenting changes on a continuous basis to appear in Project Record Documents.

13. Process and schedule for completing prestart and startup checklists for systems, subsystems, and equipment to be verified and tested.

14. Step-by-step procedures for testing systems, subsystems, and equipment with descriptions for methods of verifying relevant data, recording the results obtained, and listing parties involved in performing and verifying tests.

B. Test Checklists: CxA, with assistance of Contractor and Subcontractors, shall develop test checklists for each system, subsystem, or equipment including interfaces and interlocks, and include a separate entry, with space for comments, for each item to be tested. Prepare separate checklists for each mode of operation and provide space to indicate whether the mode under test responded as required. Provide space for testing personnel to sign off on each checklist. Specific checklist content requirements are specified in Division 01 Section "HVAC Commissioning Requirements", "Electrical Commissioning Requirements" and "Plumbing System Commissioning Requirements". Test checklists will be jointly developed as the project progresses. Each checklist, regardless of system, subsystem, or equipment being tested, shall include, but not be limited to, the following:

1. Name and identification code of tested item.

2. Test number.

3. Time and date of test.

4. Indication of whether the record is for a first test or retest following correction of a problem or issue.

5. Dated signatures of the person performing test and of the witness, if applicable.

6. Individuals present for test.

7. Deficiencies.

8. Issue number, if any, generated as the result of test.

C. Certificate of Readiness: Certificate of Readiness shall be signed by Contractor, Subcontractor(s), Installer(s), and CxA certifying that systems, subsystems, equipment, and associated controls are ready for testing. Completed test checklists signed by the responsible parties shall accompany this certificate.

D. Test and Inspection Reports: CxA shall record test data, observations, and measurements on test checklists. Photographs, forms, and other means appropriate for the application shall be included with data. CxA shall compile test and inspection reports and test and inspection certificates and include them in systems manual and commissioning report.

E. Corrective Action Documents: CxA shall document corrective action taken for systems and equipment that fail tests. Include required modifications to systems and equipment and revisions to test procedures, if any. Retest systems and equipment requiring corrective action and document retest results.

F. Issues Log: CxA shall prepare and maintain an issues log that describes design, installation, and performance issues that are at variance with the Contract Documents. Identify and track issues as they are encountered, documenting the status of unresolved and resolved issues.

1. Creating an Issues Log Entry:

   a. Identify the issue with unique numeric or alphanumeric identifier by which the issue may be tracked.
   b. Assign a descriptive title of the issue.
   c. Identify date and time of the issue.
   d. Identify test number of test being performed at the time of the observation, if applicable, for cross-reference.
   e. Identify system, subsystem, and equipment to which the issue applies.
   f. Identify location of system, subsystem, and equipment.
   g. Include information that may be helpful in diagnosing or evaluating the issue.
   h. Note recommended corrective action.
   i. Identify commissioning team member responsible for corrective action.
   j. Identify expected date of correction.
   k. Identify person documenting the issue.

2. Documenting Issue Resolution:

   a. Log date correction is completed or the issue is resolved.
   b. Describe corrective action or resolution taken. Include description of diagnostic steps taken to determine root cause of the issue, if any.
   c. Identify changes to the Contract Documents that may require action.
   d. State that correction was completed and system, subsystem, and equipment is ready for retest, if applicable.
   e. Identify person(s) who corrected or resolved the issue.
   f. Identify person(s) documenting the issue resolution.

3. Issues Log Report: On a periodic basis, but not less than for each commissioning team meeting, CxA shall prepare a written narrative for review of outstanding issues and a status update of the issues log. As a minimum, CxA shall include the

following information in the issues log and expand it in the narrative:

a. Issue number and title.
b. Date of the identification of the issue.
c. Name of the commissioning team member assigned responsibility for resolution.
d. Expected date of correction.

G. Commissioning Report: CxA shall document results of the commissioning process including unresolved issues and performance of systems, subsystems, and equipment. The commissioning report shall indicate whether systems, subsystems, and equipment have been completed and are performing according to the Contract Documents. The commissioning report shall include, but is not limited to, the following:

1. Lists and explanations of substitutions; compromises; variances in the Contract Documents; record of conditions; and, if appropriate, recommendations for resolution. This report shall be used to evaluate systems, subsystems, and equipment and shall serve as a future reference document during Owner occupancy and operation. It shall describe components and performance that exceed requirements of the Contract Documents and those that do not meet requirements of the Contract Documents. It may also include a recommendation for accepting or rejecting systems, subsystems, and equipment.

2. Commissioning plan.

3. Testing plans and reports.

4. Corrective modification documentation.

5. Issues log.

6. Completed test checklists.

7. Punch Lists.

8. Test/Balance Reports.

9. Listing of off-season test(s) not performed and a schedule for their completion.

10. All commissioning documents must be submitted to the building Owner within 90 days of the date of receipt of the Certificate of Occupancy.

H. Systems Manual: CxA shall gather required information and compile systems manual. Systems manual shall include, but is not limited to, the following:

1. Project Record Documents as specified in Division 01 Section "Project Record Documents."

2. Final commissioning plan.

3. Commissioning report.

4. Operation and maintenance data as specified in Division 01 Section "Operation and Maintenance Data."

1.09 SUBMITTALS

A. Test Checklists and Report Forms: CxA shall submit sample checklists and forms to Contractor quality-control manager and subcontractors for review and comment. Submit two copies of each checklist and report form.

B. Test and Inspection Reports: CxA shall submit test and inspection reports.

C. Corrective Action Documents: CxA shall submit corrective action documents.

1.10 QUALITY ASSURANCE

A. Instructor Qualifications: Factory-authorized service representatives, experienced in training, operation, and maintenance procedures for installed systems, subsystems, and equipment.

B. Test Equipment Calibration: Comply with test equipment manufacturer's calibration procedures and intervals. Recalibrate test instruments immediately whenever instruments have been repaired following damage or dropping. Affix calibration tags to test instruments. Instruments shall have been calibrated within six months prior to use.

1.11 COORDINATION

A. Coordinating Meetings: CxA shall conduct coordination meetings of the commissioning team to review progress on the commissioning plan, to discuss scheduling conflicts, and to discuss upcoming commissioning process activities.

B. Pretesting Meetings: CxA shall conduct pretest meetings of the commissioning team to review startup reports, pretest inspection results, testing procedures, testing personnel and instrumentation requirements, and manufacturers' authorized service representative services for each system, subsystem, equipment, and component to be tested.

C. Testing Coordination: CxA shall coordinate sequence of testing activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

D. Manufacturers' Field Services: CxA and Contractor shall coordinate services of manufacturers' field services.

1.12 ALTERNATES

A. Refer to Division 01 Section, “Alternates” for description of work under this section affected by alternates.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 OPERATION AND MAINTENANCE TRAINING REQUIREMENTS

A. Training Preparation Conference: Before operation and maintenance training, CxA shall convene a training preparation conference to include Owner's operation and maintenance personnel, Contractor, and subcontractors. In addition to requirements specified in

Division 01 Section "Demonstration and Training," perform the following:

1. Review installed systems, subsystems, and equipment.

2. Review instructor qualifications.

3. Review instructional methods and procedures.

4. Review training module outlines and contents.

5. Review course materials (including operation and maintenance manuals).

6. Inspect and discuss locations and other facilities required for instruction.

7. Review and finalize training schedule and verify availability of educational materials, instructors, audiovisual equipment, and facilities needed to avoid delays.

8. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

B. Training Modules: Develop an instruction program that includes individual training modules for each system, subsystem, and equipment as specified in Division 01 Section "Demonstration and Training."

END OF SECTION 019113

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SECTION 019114
PLUMBING COMMISSIONING REQUIREMENTS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

A. This Section includes requirements for commissioning the plumbing system and its subsystems and equipment. This Section supplements the general requirements specified in Division 01 Section "General Commissioning Requirements."

B. Related Sections include the following:

1. Division 01 Section "General Commissioning Requirements" for general requirements for commissioning processes that apply to this Section.

C. The following systems and/or equipment shall be commissioned:

1. Backflow preventers.
2. Compressed air systems/equipment.
3. Condensate Neutralizers.
4. Domestic Hot Water Expansion Tanks.
5. Domestic hot water heaters. (Gas, Tankless, and Electric)
6. Domestic hot water re-circulating system.
7. Domestic water meter (including interlock to ATC system).
8. Domestic water pumps.
9. Emergency eyewash/face systems, emergency mixing valves, and equipment.
10. Gas Pressure Regulators.
11. Makeup Water Meters.
12. Plumbing Fixtures.
13. Plumbing Pumps.
14. Pressure Reducing Valves.
15. Roof Hydrants.
16. Shower head flow rates.

17. Thermostatic mixing valves below hand sinks/lavs.

18. Trap priming stations.

1.03 DEFINITIONS

A. Architect: Includes Architect identified in the Contract for Construction between Owner and Contractor, plus consultant/design professionals responsible for design of plumbing systems, electrical, communications, controls for plumbing systems, and other related systems.

B. CxA: Commissioning Authority.

C. Systems, Subsystems, and Equipment: Where these terms are used together or separately, they shall mean "as-built" systems, subsystems, and equipment.

D. TAB: Testing, Adjusting, and Balancing.

1.04 CONTRACTOR'S RESPONSIBILITIES

A. The following responsibilities are in addition to those specified in Division 01 Section "General Commissioning Requirements."

B. Contractor:

1. Attend procedures meeting for TAB Work.

2. Certify that TAB Work is complete.

3. Assist performing functional performance tests.

C. Mechanical Contractor:

1. Attend TAB verification testing.

2. Provide measuring instruments and logging devices to record test data, and data acquisition equipment to record data for the complete range of testing for the required test period.

3. Assist performing functional performance tests.

4. Assist testing flow rates of all plumbing fixtures and plumbing equipment.

D. HVAC Instrumentation and Control Contractor: With the CxA, review control designs for compliance with the Contract Documents, controllability with respect to actual equipment to be installed, and recommend adjustments to control designs and sequence of operation descriptions.

E. TAB Subcontractor:

1. Contract Documents Review: With the CxA, review the Contract Documents before developing TAB procedures.

a. Verify the following:
1) Accessibility of equipment and components required for TAB

Work.

2) Verify flush valve gallons per flush matches schedules/submittals.
3) Adequate number and placement of balancing valves to allow proper balancing and recording of water flow.
4) Adequate number and placement of test ports and test instrumentation to allow reading and compilation of system and equipment performance data needed to conduct both TAB and commissioning testing.
5) Flow rates and aerations have been specified and compared to central equipment output capacities.

b. Identify discontinuities and omissions in the Contract Documents.
c. This review of the Contract Documents by the TAB Subcontractor satisfies requirements for a design review report as specified in Division 23 Section "Testing Adjusting & Balancing for HVAC & Plumbing."
d. Assist performing functional performance tests.

2. Additional Responsibilities: Participate in tests specified in Division 23 Sections "Instrumentation & Controls of HVAC & Plumbing Systems."

F. Electrical Contractor:

1. With the Mechanical Contractor, coordinate installations and connections between and among electrical and plumbing systems, subsystems, and equipment.

2. Attend TAB verification testing.

1.05 COMMISSIONING DOCUMENTATION

A. The following are in addition to documentation specified in Division 01 Section "General Commissioning Requirements."

B. Test Checklists: CxA with assistance of Contractor shall develop test checklists for plumbing systems, subsystems, and equipment, including interfaces and interlocks with other systems. CxA shall prepare separate checklists for each mode of operation and provide space to indicate whether the mode under test responded as required. In addition to the requirements specified in Division 01 Section "General Commissioning Requirements," checklists shall include, but not be limited to, the following:

1. Calibration of sensors and sensor function.

2. Testing conditions under which test was conducted, including (as applicable) ambient conditions, set points, override conditions, and status and operating conditions that impact the results of test.

3. Control sequences for plumbing systems and equipment.

4. Strength of control signal for each set point at specified conditions.

5. Responses to control signals at specified conditions.

6. Sequence of response(s) to control signals at specified conditions.

7. Electrical demand or power input at specified conditions.

8. Power quality and related measurements.

9. Expected performance of systems, subsystems, and equipment at each step of test.

10. Narrative description of observed performance of systems, subsystems, and equipment. Notation to indicate whether the observed performance at each step meets the expected results.

11. Interaction of auxiliary equipment.

12. Issues log.

1.06 SUBMITTALS

A. The following submittals are in addition to those specified in Division 01 Section "General Commissioning Requirements."

B. Testing Procedures: CxA shall submit detailed testing plan, procedures, and checklists for each series of tests. Submittals shall include samples of data reporting sheets that will be part of the reports.

C. Certificate of Readiness: CxA shall compile certificates of readiness from Contractor certifying that systems, subsystems, equipment, and associated controls are ready for testing.

D. Certificate of Completion of Installation, Prestart, and Startup: CxA shall certify that installation, prestart, and startup activities have been completed. Certification shall include completed checklists provided by TAB Subcontractor as specified in Division 23 Section "Testing Adjusting & Balancing for HVAC & Plumbing."

E. Certified Pipe Cleaning and Flushing Report: CxA shall certify that pipe cleaning, flushing, hydrostatic testing, and chemical treating have been completed.

F. Test and Inspection Reports: CxA shall compile and submit test and inspection reports and certificates, and shall include them in systems manual and commissioning report.

G. Corrective Action Documents: CxA shall submit corrective action documents.

H. Certified TAB Reports: CxA shall submit verified, certified TAB reports.

1.07 ALTERNATES

A. Refer to Division 01 Section, “Alternates” for description of work under this section affected by alternates.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 TESTING PREPARATION

A. Prerequisites for Testing:

1. Certify that plumbing systems, subsystems, and equipment have been

completed, calibrated, and started; are operating according to the Contract Documents; and that Certificates of Readiness are signed and submitted.

2. Certify that plumbing instrumentation and control systems have been completed and calibrated; are operating according to the Contract Documents; and that pretest set points have been recorded.

3. Certify that plumbing procedures have been completed, and that TAB reports have been submitted, discrepancies corrected, and corrective work approved.

4. Test systems and intersystem performance after approval of test checklists for systems, subsystems, and equipment.

5. Set systems, subsystems, and equipment into operating mode to be tested (e.g., normal shut down, normal auto position, normal manual position, unoccupied cycle, emergency power, and alarm conditions).

6. Verify each operating cycle after it has been running for a specified period and is operating in a steady-state condition.

7. Inspect and verify the position of each device and interlock identified on checklists. Sign off each item as acceptable, or failed. Repeat this test for each operating cycle that applies to system being tested.

8. Check safety cutouts, alarms, and interlocks with life-safety systems during each mode of operation.

9. Annotate checklist or data sheet when a deficiency is observed.

10. Verify equipment interface with monitoring and control system and TAB criteria; include the following:

    a. Backflow preventer cross connection tests.
    b. Compressor operation including refrigerated air dryers.
    c. Discharge temperatures of water heaters.
    d. Domestic water meter total volume in gallons.
    e. Flow rates for domestic re-circulating systems.
    f. Flow rates in gallons per minute for showerheads.
    g. Thermostatic and emergency thermostatic mixing valve temperatures and water flow rates.
    h. Re-circ. pump pressures and flow rates.
    i. Roof hydrant operation and freeze protection.
    j. Temperature for emergency eyewash systems.
    k. Trap priming station water discharge.
    l. Water heater temperatures and set points.
    m. Water meter flow rates and calibration.

11. Verify proper responses of monitoring and control system controllers and sensors to include the following:

    a. For each controller or sensor, record the indicated monitoring and control system reading and the test instrument reading. If initial test indicates that the test reading is outside of the control range of the installed device, check calibration of the installed device and adjust as required. Retest malfunctioning devices and record results on checklist or data

sheet.

b. Report deficiencies and prepare an issues log entry.

12. Verify that plumbing equipment field quality-control testing has been completed and approved. CxA shall direct, witness, and document field quality-control tests, inspections, and startup specified in individual Division 22 Sections.

13. Verify flow rates of all aerators.

14. Verify the operation and flow rates of all plumbing fixtures and plumbing equipment.

B. Testing Instrumentation: Install measuring instruments and logging devices to record test data for the required test period. Instrumentation shall monitor and record full range of operating conditions and shall allow for calculation of total capacity of system for each mode of operation. Operational modes include the following:

1. Occupied and unoccupied.

2. Emergency power supply.

3. Life-safety and safety systems.

4. Temporary upset of system operation.

5. Partial occupancy conditions.

6. Special cycles.

7. Alarm conditions.

8. All alarms.

3.02 TAB VERIFICATION

A. TAB Subcontractor shall coordinate with CxA for work required in Division 23 Section "Testing Adjusting & Balancing for HVAC & Plumbing." TAB Subcontractor shall copy CxA with required reports, sample forms, checklists, and certificates.

B. Contractor, Plumbing Contractor, and CxA shall witness TAB Work.

C. TAB Preparation:

1. TAB Subcontractor shall provide CxA with data required for "Pre-Field TAB Engineering Reports" specified in Division 23 Section "Testing Adjusting & Balancing for HVAC & Plumbing."

a. CxA shall use this data to certify that prestart and startup activities have been completed for systems, subsystems, and equipment installation.

D. Verification of Final TAB Report:

1. CxA shall select, at random, 10 percent of report for field verification.

2. CxA shall notify TAB Subcontractor 10 days in advance of the date of field

verification; however, notice shall not include data points to be verified. The TAB Subcontractor shall use the same instruments (by model and serial number) that were used when original data were collected.

3. Failure of an item is defined as follows:

   a. A deviation of more than 10 percent.

4. Failure of more than 10 percent of selected items shall result in rejection of final TAB report.

E. If deficiencies are identified during verification testing, CxA shall notify the HVAC Contractor and Architect and shall take action to remedy the deficiency. Architect shall review final tabulated checklists and data sheets to determine if verification is complete and that system is operating according to the Contract Documents.

F. CxA shall certify that TAB Work has been successfully completed.

3.03 TESTING

A. Test systems and intersystem performance after test checklists for systems, subsystems, and equipment have been approved.

B. Perform tests using design conditions whenever possible.

1. Simulate conditions by imposing an artificial load when it is not practical to test under design conditions and when written approval for simulated conditions is received from CxA. Before simulating conditions, calibrate testing instruments. Set and document simulated conditions and methods of simulation. After tests, return settings to normal operating conditions.

2. Alter set points when simulating conditions is not practical and when written approval is received from CxA.

3. Alter sensor values with a signal generator when design or simulating conditions and altering set points are not practical. Do not use sensor to act as signal generator to simulate conditions or override values.

C. Scope of Plumbing Contractor Testing:

1. Testing scope shall include entire plumbing installation, from central hot water heating equipment for heat generation through distribution systems to each fixture. It shall include measuring capacities and effectiveness of operational and control functions.

2. Test all operating modes, interlocks, control responses, responses to abnormal or emergency conditions, and verify proper response of building automation system controllers and sensors.

3. Test all plumbing fixtures.

4. Test time to reach temperature and temperature of hot water at all fixtures with thermostatic mixing valves.

5. Test discharge temperature of emergency mixing valves.

6. Test discharge of water at all trap priming stations.

7. Verify that all backflow preventers have been tested. Document in writing.

8. Test operation of all water meters.

9. Test domestic hot water heater, safeties, and operating controls.

10. Test water meters and interlock with ATC system.

11. Test operation, set points, and safeties of water heaters.

12. Test discharge of water at all trap priming stations.

13. Test makeup water valve train flow meter.

14. Verify PRV setpoints.

D. Detailed Testing Procedures: CxA, with Plumbing Contractor, TAB Subcontractor, and Plumbing Instrumentation and Control Contractor, shall prepare detailed testing plans, procedures, and checklists for plumbing systems, subsystems, and equipment.

E. HVAC Instrumentation and Control System Testing:

1. Field testing plans and testing requirements are specified in Division 23 Section "Instrumentation & Controls of HVAC & Plumbing Systems." The CxA, Plumbing Contractor, and the HVAC Instrumentation and Control Contractor shall collaborate to prepare testing plans.

2. CxA shall convene a meeting of appropriate entities to review test report of HVAC instrumentation and control systems.

F. Plumbing System Testing: Plumbing Contractor shall prepare a testing plan to verify performance of water heaters, emergency eyewash systems, domestic re-circulating systems, backflow preventers, plumbing fixtures, trap priming stations, emergency fixture mixing valves, domestic pumps, domestic water meters, compressed air systems, thermostatic mixing valves. Plan shall include the following:

1. Sequence of testing and testing procedures for each item of equipment and section of pipe to be tested, identified by identification marker. Markers shall be keyed to Drawings for each pipe section showing the physical location of each item of equipment and pipe test section. Drawings shall be formatted to allow each item of equipment and section of piping to be physically located and identified when referred to in the system testing plan.

2. Tracking checklist for managing and ensuring that all pipe sections have been tested.

3. Design and actual measurements for all equipment.

G. Deferred Testing:

1. If tests cannot be completed because of a deficiency outside the scope of the plumbing system, the deficiency shall be documented and reported to Owner. Deficiencies shall be resolved and corrected by appropriate parties and test

rescheduled.

2. If the testing plan indicates specific seasonal testing, appropriate initial performance tests shall be completed and documented and additional tests scheduled.

H. Testing Reports:

1. Reports shall include measured data, data sheets, and a comprehensive summary describing the operation of systems at the time of testing.

2. Include data sheets for each controller to verify proper operation of the control system, the system it serves, the service it provides, and its location. For each controller, provide space for recording its readout, the reading at the controller's sensor(s), plus comments. Provide space for testing personnel to sign off on each data sheet.

3. Prepare a preliminary test report. Deficiencies will be evaluated by Architect to determine corrective action. Deficiencies shall be corrected and test repeated.

END OF SECTION 019114

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SECTION 019115
HVAC COMMISSIONING REQUIREMENTS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

A. This Section includes requirements for commissioning the HVAC system and its subsystems and equipment. This Section supplements the general requirements specified in Division 01 Section "General Commissioning Requirements."

B. Related Sections include the following:

1. Division 01 Section "General Commissioning Requirements" for general requirements for commissioning processes that apply to this Section.

C. The following systems and/or equipment shall be commissioned:

1. Air Flow Monitoring Stations.
2. Air Separators.
3. Air Curtains.
4. Automatic Glycol Feeders.
5. Automatic Temperature Control System.
6. Boiler alarms.
7. Boilers and burners.
8. Carbon Dioxide Sensors.
9. Carbon Monoxide Sensors.
10. Chilled water system.
11. Chiller alarms.
12. Condensate Block Switch Alarms (Condensing Boilers).
13. Condensate overflow alarms.
14. Condensate pumps.
15. Dampers.
16. Demand Meter/ATC Interface.

17. Differential Pressure Bypass Valves.
18. Differential Static Pressure Controllers.
19. Duct smoke detectors.
20. Ductless heat pumps.
21. Electric Heaters/Radiant Heat Panels/Infrared Electric Heaters.
22. Electric Panel Monitoring and Control.
23. Electric Heat Tracing.
24. Energy recovery ventilators (Including variable frequency drives).
25. Energy Recovery Modules.
26. Expansion tanks.
27. Exhaust Fans and ventilation fans.
28. Fan coil systems.
29. Flame Failure Alarms.
30. Flow measuring stations.
31. Flow Switches.
32. Freeze protection pumps.
33. Heat Pipes.
34. High and low temperature alarms.
35. Hydronic Unit Heaters.
36. Hot water systems.
37. HVAC controls and sequences of operation.
38. Lighting interface to ATC system.
39. Low Water Cut-Offs and Alarms.
40. Makeup water meter flow rates and alarms.
41. Minimum Flow Bypass Valves/Controls.
42. Pressure Independent Control Valves.
43. Pumps.
44. Pump VFD Alarms.

45. Refrigerant Mitigation Controls.

46. Relative Humidity Sensors.

47. Refrigerant Leak Detectors.

48. Supply Air Fans.

49. Temperature Sensors.

50. Unit Heaters.

51. Variable frequency drives.

52. Ventilation Fans.

53. Water meter/ATC interface.

1.03 DEFINITIONS

A. Architect: Includes Architect identified in the Contract for Construction between Owner and Contractor, plus consultant/design professionals responsible for design of HVAC, electrical, communications, controls for HVAC systems, and other related systems.

B. CxA: Commissioning Authority.

C. Systems, Subsystems, and Equipment: Where these terms are used together or separately, they shall mean "as-built" systems, subsystems, and equipment.

D. TAB: Testing, Adjusting, and Balancing.

1.04 CONTRACTOR'S RESPONSIBILITIES

A. The following responsibilities are in addition to those specified in Division 01 Section "General Commissioning Requirements."

B. Contractor:

1. Attend procedures meeting for TAB Work.

2. Certify that TAB Work is complete.

3. Assist performing functional performance tests.

C. Mechanical Contractor:

1. Attend TAB verification testing.

2. Provide measuring instruments and logging devices to record test data, and data acquisition equipment to record data for the complete range of testing for the required test period.

3. Assist performing functional performance tests.

D. HVAC Instrumentation and Control Contractor: With the CxA, review control designs for

compliance with the Contract Documents, controllability with respect to actual equipment to be installed, and recommend adjustments to control designs and sequence of operation descriptions. Assist with performing functional performance tests.

E. TAB Subcontractor:

1. Contract Documents Review: With the CxA, review the Contract Documents before developing TAB procedures.

   a. Verify the following:
      1) Accessibility of equipment and components required for TAB Work.
      2) Adequate number and placement of duct balancing dampers to allow proper balancing while minimizing sound levels in occupied spaces.
      3) Adequate number and placement of balancing valves to allow proper balancing and recording of water flow.
      4) Adequate number and placement of test ports and test instrumentation to allow reading and compilation of system and equipment performance data needed to conduct both TAB and commissioning testing.
      5) Air and water flow rates have been specified and compared to central equipment output capacities.
   b. Identify discontinuities and omissions in the Contract Documents.
   c. This review of the Contract Documents by the TAB Subcontractor satisfies requirements for a design review report as specified in Division 23 Section "Testing Adjusting & Balancing for HVAC & Plumbing."
   d. Assist performing functional performance tests.

2. Additional Responsibilities: Participate in tests specified in Division 23 Sections "Instrumentation & Controls of HVAC & Plumbing Systems."

F. Electrical Contractor:

1. With the Mechanical Contractor, coordinate installations and connections between and among electrical and HVAC systems, subsystems, and equipment.

2. Attend TAB verification testing.

1.05 COMMISSIONING DOCUMENTATION

A. The following are in addition to documentation specified in Division 01 Section "General Commissioning Requirements."

B. Test Checklists: CxA with assistance of Contractor shall develop test checklists for HVAC systems, subsystems, and equipment, including interfaces and interlocks with other systems. CxA shall prepare separate checklists for each mode of operation and provide space to indicate whether the mode under test responded as required. In addition to the requirements specified in Division 01 Section "General Commissioning Requirements," checklists shall include, but not be limited to, the following:

1. Calibration of sensors and sensor function.

2. Testing conditions under which test was conducted, including (as applicable) ambient conditions, set points, override conditions, and status and operating

conditions that impact the results of test.

3. Control sequences for HVAC systems.

4. Strength of control signal for each set point at specified conditions.

5. Responses to control signals at specified conditions.

6. Sequence of response(s) to control signals at specified conditions.

7. Electrical demand or power input at specified conditions.

8. Power quality and related measurements.

9. Expected performance of systems, subsystems, and equipment at each step of test.

10. Narrative description of observed performance of systems, subsystems, and equipment. Notation to indicate whether the observed performance at each step meets the expected results.

11. Interaction of auxiliary equipment.

12. Issues log.

1.06 SUBMITTALS

A. The following submittals are in addition to those specified in Division 01 Section "General Commissioning Requirements."

B. Testing Procedures: CxA shall submit detailed testing plan, procedures, and checklists for each series of tests. Submittals shall include samples of data reporting sheets that will be part of the reports.

C. Certificate of Readiness: CxA shall compile certificates of readiness from Contractor certifying that systems, subsystems, equipment, and associated controls are ready for testing.

D. Certificate of Completion of Installation, Prestart, and Startup: CxA shall certify that installation, prestart, and startup activities have been completed. Certification shall include completed checklists provided by TAB Subcontractor as specified in Division 23 Section "Testing Adjusting & Balancing for HVAC & Plumbing."

E. Test and Inspection Reports: CxA shall compile and submit test and inspection reports and certificates, and shall include them in systems manual and commissioning report.

F. Corrective Action Documents: CxA shall submit corrective action documents.

G. Certified TAB Reports: CxA shall submit verified, certified TAB reports.

1.07 ALTERNATES

A. Refer to Division 01 Section, “Alternates” for description of work under this section affected by alternates.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 TESTING PREPARATION

A. Prerequisites for Testing:

1. Certify that HVAC systems, subsystems, and equipment have been completed, calibrated, and started; are operating according to the Contract Documents; and that Certificates of Readiness are signed and submitted.

2. Certify that HVAC instrumentation and control systems have been completed and calibrated; are operating according to the Contract Documents; and that pretest set points have been recorded.

3. Certify that TAB procedures have been completed, and that TAB reports have been submitted, discrepancies corrected, and corrective work approved.

4. Test systems and intersystem performance after approval of test checklists for systems, subsystems, and equipment.

5. Set systems, subsystems, and equipment into operating mode to be tested (e.g., normal shut down, normal auto position, normal manual position, unoccupied cycle, emergency power, and alarm conditions).

6. Verify each operating cycle after it has been running for a specified period and is operating in a steady-state condition.

7. Inspect and verify the position of each device and interlock identified on checklists. Sign off each item as acceptable, or failed. Repeat this test for each operating cycle that applies to system being tested.

8. Check safety cutouts, alarms, and interlocks with duct detectors and life-safety systems during each mode of operation.

9. Annotate checklist or data sheet when a deficiency is observed.

10. Verify equipment interface with monitoring and control system and TAB criteria; include the following:

    a. Automatic Glycol Feeder operation and ATC interlocks.
    b. All pump status alarms, pump operation, flow rates, and controls.
    c. All temperature alarms.
    d. Air curtain operation, safeties, and door interlock switches.
    e. Boiler temperatures, flow rates, low water cut-off interlock, flame failure interlocks, covered gas dryer interlocks, flow switches, and amperage.
    f. Chiller flow rates, temperatures, set points, and safeties.
    g. Differential bypass valves and transmitters.
    h. Duct Smoke detectors operation and interlocks with fire alarm system.
    i. Ductless heat pumps with air flow rates, and temperatures.
    j. Electric heating equipment volts, amps, and temperature rise.
    k. Electric Heat Tracing.
    l. Electric Meter Monitoring of Energy (kWh) and Power (kW).
    m. Electric Radiant Heat Panel/Infrared Heater Temperature Sensors and

Surface Temperatures.

n. Fan coil unit air/water flow rates and temperatures.
o. Flow switch equipment shutdown and alarm.
p. Freeze protection pump flow rate, pressure, amperage, cut-in/cut-out temperatures.
q. Head pressure controls for air cooled heat pump units or chillers.
r. Energy recovery modules, unit operation, temperatures, and air flow rates.
s. Hot water and chilled water coils, airflow rates, pressure drops, temperatures, and fluid flow rate.
t. Hydronic unit heater temperature and flow rates.
u. Lighting interface and start/stop by ATC system.
v. Minimum outdoor-air intake in each operational mode and at minimum and maximum airflows.
w. Operation of heat pump units in both heating and cooling cycles.
x. Operation/Accuracy of air and fluid flow measuring stations at various flow rates.
y. Pump flow rates, pressure and amperage at each operating mode.
z. Refrigeration mitigation controls, interlocks, and leak detection system operation.
aa. Sequences of operation of all HVAC equipment.
bb. Set point and operation of high temperature alarms.
cc. Split system condensing units.
dd. Supply and return air flow rates for all HVAC equipment.
ee. Supply and return flow rates for VAV and constant volume systems in each operational mode.
ff. Supply, outside air, exhaust and return air flow rates for ERVs in each operating mode.
gg. Test all flow switches including operation and alarms.
hh. Test boiler low water cut-off, condensate overflow switches, and flame failure alarms.
ii. Test freeze protection pumps.
jj. Test safeties and operation of air curtains.
kk. Total exhaust airflow and total outdoor-air intake.
ll. Unit heaters operation and control.
mm. Variable speed drive parameters at each operated mode.

11. Verify proper responses of monitoring and control system controllers and sensors to include the following:

    a. For each controller or sensor, record the indicated monitoring and control system reading and the test instrument reading. If initial test indicates that the test reading is outside of the control range of the installed device, check calibration of the installed device and adjust as required. Retest malfunctioning devices and record results on checklist or data sheet.
    b. Report deficiencies and prepare an issues log entry.

12. Verify that HVAC equipment field quality-control testing has been completed and approved. CxA shall direct, witness, and document field quality-control tests, inspections, and startup specified in individual Division 23 Sections.

B. Testing Instrumentation: Install measuring instruments and logging devices to record test data for the required test period. Instrumentation shall monitor and record full range of operating conditions and shall allow for calculation of total capacity of system for each mode of operation. For individual room cooling tests, provide temporary heaters to impose a cooling load. Operational modes include the following:

1. Heating/Cooling Mode.
2. Occupied and unoccupied.
3. Warm up and cool down.
4. Fluid flow rates, pressure, and temperatures for all hydronic equipment.
5. Life-safety and safety systems.
6. Duct detectors.
7. Fire safety.
8. Temporary upset of system operation.
9. Partial occupancy conditions.
10. Special cycles.
11. ERV supply/exhaust air flow at partial CO2 levels.
12. Lead/lag/standby modes of operation where redundant equipment is indicated.
13. All alarms.
14. Flow switch shut-down and alarm.
15. Condensate overflow safety switch shut-down and alarm.
16. Condensate pump operation.
17. Test operation and accuracy of air/fluid flow measuring stations and make-up water meters.
18. Test refrigerant mitigation controls including fan interlocks and refrigerant leak detection sensors.

3.02 TAB VERIFICATION

A. TAB Subcontractor shall coordinate with CxA for work required in Division 23 Section "Testing Adjusting & Balancing for HVAC & Plumbing." TAB Subcontractor shall copy CxA with required reports, sample forms, checklists, and certificates.

B. Contractor, HVAC Contractor, and CxA shall witness TAB Work.

C. TAB Preparation:

1. TAB Subcontractor shall provide CxA with data required for "Pre-Field TAB Engineering Reports" specified in Division 23 Section "Testing Adjusting & Balancing for HVAC & Plumbing."

    a. CxA shall use this data to certify that prestart and startup activities have been completed for systems, subsystems, and equipment installation.

D. Verification of Final TAB Report:

1. CxA shall select, at random, 10 percent of report for field verification.

2. CxA shall notify TAB Subcontractor 10 days in advance of the date of field verification; however, notice shall not include data points to be verified. The TAB Subcontractor shall use the same instruments (by model and serial number) that were used when original data were collected.

3. Failure of an item is defined as follows:

a. For all readings a deviation of more than 10 percent.

4. Failure of more than 10 percent of selected items shall result in rejection of final TAB report.

E. If deficiencies are identified during verification testing, CxA shall notify the HVAC Contractor and Architect, and shall take action to remedy the deficiency. Architect shall review final tabulated checklists and data sheets to determine if verification is complete and that system is operating according to the Contract Documents.

F. CxA shall certify that TAB Work has been successfully completed.

3.03 TESTING

A. Test systems and intersystem performance after test checklists for systems, subsystems, and equipment have been approved.

B. Contractors and subcontractors must pre-inspect and pre-test all equipment and systems prior to requesting functional performance testing by the CxA. All pre-start/start-up checklists and functional performance test forms must be completed and submitted to Engineer prior to scheduling formal functional performance testing.

C. Perform tests using design conditions whenever possible.

1. Simulate conditions by imposing an artificial load when it is not practical to test under design conditions and when written approval for simulated conditions is received from CxA. Before simulating conditions, calibrate testing instruments. Set and document simulated conditions and methods of simulation. After tests, return settings to normal operating conditions.

2. Alter set points when simulating conditions is not practical and when written approval is received from CxA.

3. Alter sensor values with a signal generator when design or simulating conditions and altering set points are not practical. Do not use sensor to act as signal generator to simulate conditions or override values.

D. Scope of HVAC Contractor Testing:

1. Testing scope shall include entire HVAC installation, from central equipment for heat generation and refrigeration through distribution systems to each conditioned space. It shall include measuring capacities and effectiveness of operational and control functions.

2. Test all operating modes, interlocks, control responses, responses to abnormal or emergency conditions, and verify proper response of building automation system controllers and sensors.

E. Detailed Testing Procedures: CxA, with HVAC Contractor, TAB Subcontractor, and HVAC Instrumentation and Control Contractor, shall prepare detailed testing plans, procedures, and checklists for HVAC systems, subsystems, and equipment.

F. HVAC Instrumentation and Control System Testing:

1. Field testing plans and testing requirements are specified in Division 23 Section "Instrumentation & Controls of HVAC & Plumbing Systems". The CxA, HVAC Contractor, Equipment Provider/Manufacturer and the HVAC Instrumentation and Control Contractor shall collaborate to prepare testing plans.

2. CxA shall convene a meeting of appropriate entities to review test report of HVAC instrumentation and control systems.

G. Energy Supply System Testing: HVAC Contractor shall prepare a testing plan to verify performance of gas systems and equipment. Plan shall include the following:

1. Sequence of testing and testing procedures for each equipment item and pipe section to be tested, identified by pipe zone or sector identification marker. Markers shall be keyed to Drawings for each pipe sector showing the physical location of each designated pipe test section. Drawings keyed to pipe zones or sectors shall be formatted to allow each section of piping to be physically located and identified when referred to in system testing plan.

2. Tracking checklist for managing and ensuring that all pipe sections have been tested.

H. Heat-Generation System Testing: HVAC Contractor shall prepare a testing plan to verify performance of air handling units, heat pumps, energy recovery ventilators, energy recovery modules, unit heaters, radiant heat panels, radiant heat panels, hydronic unit heaters, infrared heaters, fan coil units, boilers, and fan coil units. Plan shall include the following:

1. Sequence of testing and testing procedures for each item of equipment and section of pipe to be tested, identified by identification marker. Markers shall be keyed to Drawings for each pipe sector showing the physical location of each item of equipment and pipe test section. Drawings shall be formatted to allow each item of equipment and section of piping to be physically located and identified when referred to in the system testing plan.

2. Tracking checklist for managing and ensuring that all pipe sections have been tested.

I. Refrigeration/Heat Rejection System Testing: HVAC Contractor shall prepare a testing plan to verify performance of heat pumps, chillers, refrigerant compressors, condensers, ductless units, ERV units, heat pipes, fan coil units, unit heaters, and other refrigeration systems. Plan shall include the following:

1. Sequence of testing and testing procedures for each item of equipment and section of pipe to be tested, identified by identification marker. Markers shall be keyed to Drawings showing the physical location of each item of equipment and pipe test

section. Drawings shall be formatted to allow each item of equipment and section of piping to be physically located and identified when referred to in the system testing plan.

2. Tracking checklist for managing and ensuring that all pipe sections have been tested.

J. HVAC Distribution System Testing: HVAC Contractor shall prepare a testing plan to verify performance of air, air handling units, and hydronic distribution systems, pumps, special exhaust, ERV unit supply and exhaust, gas fired clothes dryer interlocks, and other distribution systems. Include HVAC terminal equipment and unitary equipment. Plan shall include the following:

1. Sequence of testing and testing procedures for each item of equipment and section of pipe to be tested, identified by identification marker. Markers shall be keyed to Drawings showing the physical location of each item of equipment and pipe test section. Drawings shall be formatted to allow each item of equipment and section of piping to be physically located and identified when referred to in the system testing plan.

2. Tracking checklist for managing and ensuring that all pipe sections have been tested.

3. Equipment, air flow rates, air temperatures, fluid flow rates, safeties, freeze protection pump operation, and demand controlled ventilation.

K. Deferred Testing:

1. If tests cannot be completed because of a deficiency outside the scope of the HVAC system, the deficiency shall be documented and reported to Owner. Deficiencies shall be resolved and corrected by appropriate parties and test rescheduled.

2. If the testing plan indicates specific seasonal testing, appropriate initial performance tests shall be completed and documented and additional tests scheduled.

L. Testing Reports:

1. Reports shall include measured data, data sheets, and a comprehensive summary describing the operation of systems at the time of testing.

2. Include data sheets for each controller to verify proper operation of the control system, the system it serves, the service it provides, and its location. For each controller, provide space for recording its readout, the reading at the controller's sensor(s), plus comments. Provide space for testing personnel to sign off on each data sheet.

3. Prepare a preliminary test report. Deficiencies will be evaluated by Architect, to determine corrective action. Deficiencies shall be corrected and test repeated.

END OF SECTION 019115

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SECTION 019116
ELECTRICAL SYSTEMS COMMISSIONING REQUIREMENTS

PART 1. GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

A. This Section includes requirements for commissioning the electrical system and its subsystems and equipment. This Section supplements the general requirements specified in Division 01 Section "General Commissioning Requirements."

B. Related Sections include the following:

1. Division 01 Section "General Commissioning Requirements" for general requirements for commissioning processes that apply to this Section.

C. The following systems and/or equipment shall be commissioned.

1. Emergency lighting systems.

2. Fire Alarm System.

3. Exterior lighting and associated controls.

4. Athletic Field lighting and associated controls.

5. Electrical distribution system.

a. Main switchboard.
b. Distribution panelboards.
c. Motor starters.
d. Lighting contactors.

1.03 DEFINITIONS

A. Architect: Includes Architect identified in the Contract for Construction between Owner and Contractor, plus consultant/design professionals responsible for design of electrical systems, electrical, communications, and other related systems.

B. CxA: Commissioning Authority.

C. Systems, Subsystems, and Equipment: Where these terms are used together or separately, they shall mean "as-built" systems, subsystems, and equipment.

1.04 CONTRACTOR'S RESPONSIBILITIES

A. The following responsibilities are in addition to those specified in Division 01 Section "General Commissioning Requirements."

B. Electrical Contractor:

1. Provide certified and calibrated measuring instruments and logging devices to record test data, and data acquisition equipment to record data for the complete range of testing for the required test period.

C. Electrical Contractor:

1. With the Mechanical Contractor, coordinate installations and connections between and among electrical and HVAC systems, subsystems, and equipment.
2. Attend TAB verification testing.

1.05 COMMISSIONING DOCUMENTATION

A. The following are in addition to documentation specified in Division 01 Section "General Commissioning Requirements."

B. Test Checklists: CxA with assistance of Contractor shall develop test checklists for electrical systems, subsystems, and equipment, including interfaces and interlocks with other systems. CxA shall prepare separate checklists for each mode of operation and provide space to indicate whether the mode under test responded as required. In addition to the requirements specified in Division 01 Section "General Commissioning Requirements," checklists shall include, but not be limited to, the following:

1. Calibration of sensors and sensor function.

2. Testing conditions under which test was conducted, including (as applicable) ambient conditions, set points, override conditions, and status and operating conditions that impact the results of test.

3. Control sequences for electrical and emergency generator systems.

4. Strength of control signal for each set point at specified conditions.

5. Responses to control signals at specified conditions.

6. Sequence of response(s) to control signals at specified conditions.

7. Electrical demand or power input at specified conditions.

8. Power quality and related measurements.

9. Expected performance of systems, subsystems, and equipment at each step of test.

10. Narrative description of observed performance of systems, subsystems, and equipment. Notation to indicate whether the observed performance at each step meets the expected results.

11. Interaction of auxiliary equipment.

12. Issues log.

1.06 SUBMITTALS

A. The following submittals are in addition to those specified in Division 01 Section "General Commissioning Requirements."

B. Testing Procedures: CxA shall submit detailed testing plan, procedures, and checklists for each series of tests. Submittals shall include samples of data reporting sheets that will be part of the reports.

C. Certificate of Readiness: CxA shall compile certificates of readiness from Contractor certifying that systems, subsystems, equipment, and associated controls are ready for testing.

D. Certificate of Completion of Installation, Prestart, and Startup: CxA shall certify that installation, prestart, and startup activities have been completed.

E. Test and Inspection Reports: CxA shall compile and submit test and inspection reports and certificates, and shall include them in systems manual and commissioning report.

F. Corrective Action Documents: CxA shall submit corrective action documents.

PART 2. PRODUCTS (Not Used)

PART 3. EXECUTION

3.01 TESTING PREPARATION

A. Prerequisites for Testing:

1. Certify that electrical systems, subsystems, and equipment have been completed, calibrated, and started; are operating according to the Contract Documents; and that Certificates of Readiness are signed and submitted.

2. Certify that electrical instrumentation and control systems have been completed and calibrated; are operating according to the Contract Documents; and that pretest set points have been recorded.

3. Test systems and intersystem performance after approval of test checklists for systems, subsystems, and equipment.

4. Set systems, subsystems, and equipment into operating mode to be tested (e.g., normal shut down, normal auto position, normal manual position, unoccupied cycle, emergency power, and alarm conditions).

5. Verify each operating cycle after it has been running for a specified period and is operating in a steady-state condition.

6. Inspect and verify the position of each device and interlock identified on checklists. Sign off each item as acceptable, or failed. Repeat this test for each operating cycle that applies to system being tested.

7. Check safety cutouts, alarms, and interlocks with **[smoke control]** and life-safety systems during each mode of operation.

8. Annotate checklist or data sheet when a deficiency is observed.

9. Verify proper responses of monitoring and control system controllers and sensors to include the following:

   a. For each controller or sensor, record the indicated monitoring and control system reading and the test instrument reading. If initial test indicates that the test reading is outside of the control range of the installed device, check calibration of the installed device and adjust as required. Retest malfunctioning devices and record results on checklist or data sheet.

   b. Report deficiencies and prepare an issues log entry.

3.02 TESTING

A. Test systems and intersystem performance after test checklists for systems, subsystems, and equipment have been approved.

B. Perform tests using design conditions whenever possible.

1. Simulate conditions by imposing an artificial load when it is not practical to test under design conditions and when written approval for simulated conditions is received from CxA. Before simulating conditions, calibrate testing instruments. Set and document simulated conditions and methods of simulation. After tests, return settings to normal operating conditions.

C. Scope of Electrical Contractor Testing:

1. Testing scope shall include entire electrical installation, from incoming service through distribution systems to each space. It shall include measuring voltages and currents and effectiveness of operational and control functions.

2. Test all operating modes, interlocks, control responses, responses to abnormal or emergency conditions, and verify proper response of building automation system controllers and sensors.

D. Detailed Testing Procedures: CxA, with Electrical Contractor shall prepare detailed testing plans, procedures, and checklists for electrical systems, subsystems, and equipment.

E. Electrical System Testing: Electrical Contractor shall prepare a testing plan to verify performance of emergency generator, electrical distribution systems, fire alarm system, exterior lighting control systems. Plan shall include the following:

1. Sequence of testing and testing procedures for each item of equipment and section of wiring to be tested, identified by identification marker. Markers shall be keyed to Drawings for each wiring sector showing the physical location of each item of equipment and electrical wiring test section. Drawings shall be formatted to allow each item of equipment and section of wiring to be physically located and identified when referred to in the system testing plan.

2. Tracking checklist for managing and ensuring that all wiring systems have been tested.

F. Deferred Testing:

1. If tests cannot be completed because of a deficiency outside the scope of the electrical system, the deficiency shall be documented and reported to Owner. Deficiencies shall be resolved and corrected by appropriate parties and test rescheduled.

2. If the testing plan indicates specific seasonal testing, appropriate initial performance tests shall be completed and documented and additional tests scheduled.

G. Testing Reports:

1. Reports shall include measured data, data sheets, and a comprehensive summary describing the operation of systems at the time of testing.

2. Include data sheets for each electrical system to verify proper operation of the electrical systems, the system it serves, the service it provides, and its location. Provide space for testing personnel to sign off on each data sheet.

3. Prepare a preliminary test report. Deficiencies will be evaluated by Architect to determine corrective action. Deficiencies shall be corrected and test repeated.

END OF SECTION 019116

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