



**ROCKFORD BOARD OF EDUCATION  
INVITATION FOR BID ON SUPPLIES, MATERIALS, EQUIPMENT OR SERVICES  
FOR SCHOOL DISTRICT NO. 205  
ROCKFORD, ILLINOIS**

**IFB No. 20-01 Security Cameras at Auburn H.S. and Guilford H.S.**

**DATE: July 5, 2019**

**OFFERS WILL BE RECEIVED UNTIL: 2:00 P.M. (CDST) on Thursday, August 1, 2019**

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**RE: IFB No. 20-01 Security Cameras at Auburn H.S. and Guilford H.S.** The purpose of this Invitation for Bid (IFB) is to solicit bids for the Security Camera Project at Auburn H.S., 5110 Auburn St., Rockford, IL 61101 and Guilford H.S., 5620 Spring Creek Rd., Rockford, IL 61114.

**IFB Opening: Thursday, August 1, 2019 at 2:00 p.m., Rockford Board of Education, 6th floor Conference Room, 501 Seventh St., Rockford, IL 61104.**

**If you plan to hand deliver your IFB submission on the due date, please note that you must check in on the 2<sup>nd</sup> floor prior to coming to the bid opening on 6<sup>th</sup> floor. Please allow time for this as late submissions will not be accepted.**

Copies of the bidding documents are available from Onvia DemandStar, DG Digital Printing, YCS Printing, Inc., or by download from the District's Purchasing Bids-RFPs webpage at <http://www3.rps205.com/departments/Purchasing/Pages/Bids-RFPs.aspx>.

**A MANDATORY PRE-BID MEETING WILL BE CONDUCTED ON THURSDAY, JULY 18, 2019 AT 10:30 A.M. (CDST), AT AUBURN H.S., 5110 AUBURN ST., ROCKFORD IL 61101. THE MEETING WILL CONTINUE AT 11:30 A.M AT GUILFORD H.S., 5620 SPRING CREEK RD., ROCKFORD, IL 61114. MEET IN THE FRONT MAIN ENTRY.**

Direct all questions relative to this Invitation for Bid including specifications, Instructions to Bidders, and Conditions in writing to the Director of Purchasing via email at [PurchasingDeptStaff@rps205.com](mailto:PurchasingDeptStaff@rps205.com). During the time the bid is in the **open solicitation and unawarded phase**, Bidders may not contact any District staff or design consultants to inquire about the bidding process or any of the details contained in the Bid Package except in writing and by email to Director of Purchasing.

**Communication with District staff or representatives in a manner other than identified herein may result in disqualification.**

**ROCKFORD BOARD OF EDUCATION**

By: Dane Youngblood  
Director of Purchasing

## INVITATION FOR BID

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### IFB No. 20-01 Security Cameras at Auburn H.S. and Guilford H.S.

<b>Project</b>	Security Cameras at Auburn H.S. and Guilford H.S.
<b>Location</b>	Auburn H.S. 5110 Auburn St. Rockford, Illinois 61101  Guilford H.S. 5620 Spring Creek Rd. Rockford, Illinois 61114
<b>Owner</b>	Rockford School District No. 205 501 Seventh Street Rockford, Illinois 61104
<b>Design Professional</b>	Rockford School District No. 205 501 7 <sup>th</sup> St. Rockford, IL 61104 Debra Dimmick T: 815-981-5101 Email: <a href="mailto:debra.dimmick@rps205.com">debra.dimmick@rps205.com</a>
<b>Bid Scope</b>	Security Cameras at Auburn H.S. and Guilford H.S.
<b>Bid Due Date</b>	2:00 P.M. (CDST), Thursday, August 1, 2019
<b>Pre-Bid Meeting:</b>	Mandatory Meeting: 10:30 A.M. (CDST), Thursday, July 18, 2019 Auburn H.S. 5110 Auburn St. Rockford, IL 61101 Meet at Front Main Entry 11:30 A.M. (CDST) Guilford H.S. 5620 Spring Creek Rd. Rockford, Illinois 61114.
<b>Addenda</b>	Last RFI accepted: 12:00 P.M, July 24, 2019 Last addendum issued; July 26, 2019
<b>Other Key Dates</b>	Tuesday, August 13, 2019; RPS Board Meeting Wednesday, August 14, 2019; Award/Notice to Proceed
<b>Bid Security</b>	5% of Base Bid.
<b>Obtain Bid Documents By</b>	Download from the District's Purchasing Bids-RFPs webpage at <a href="http://www3.rps205.com/departments/Purchasing/Pages/Bids-RFPs.aspx">http://www3.rps205.com/departments/Purchasing/Pages/Bids-RFPs.aspx</a> , or by contacting the following:  Onvia Demandstar

## INVITATION FOR BID

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DG Digital Printing  
214 N. Rockton Avenue  
Rockford, IL 61103  
P. (815) 961-0000  
F. (815) 961-0004  
<http://www.dgdplanroom.com/>

YCS Printing, Inc.  
305 E. Riverside Blvd.  
Loves Park, IL 61111  
P. (815) 636-2058  
F. (815) 636-2059  
[print@ycsprinting.com](mailto:print@ycsprinting.com)

**Performance Bond and Labor  
And Material Payment Bond**

Furnish in the amount of 100% of the Contract after award.

**Rights Reserved by Owner**

The District reserves the right to waive any irregularities and/or reject any or all bids when, in the opinion of the District, such action will serve the best interests of the District.

**Withdrawal of Bids**

No bid may be withdrawn for a period of 60 days after the opening of bids without written consent of the District.

**ROCKFORD PUBLIC SCHOOL DISTRICT NO. 205**

**SEALED BID PROPOSAL**

**BID NO.: 20-01**

**OPENING DATE: Thursday, August 1, 2019**

**OPENING TIME: 2:00 PM (CDST or CST)**

**DESCRIPTION: Security Cameras at Auburn H.S. and Guilford H.S.**

**ATTN: PURCHASING DEPT.**

**DATED MATERIAL-DELIVER IMMEDIATELY**

**PLEASE CUT OUT AND AFFIX THIS BID  
LABEL TO THE OUTERMOST ENVELOPE OF  
YOUR PROPOSAL TO HELP ENSURE PROPER  
DELIVERY!**

**LATE OFFERS CANNOT AND WILL NOT BE ACCEPTED!**



# **AIA® Document A701™ – 1997**

## ***Instructions to Bidders***

for the following PROJECT:

Construction Bid Documents

### **THE OWNER:**

*(Name, legal status and address)*

Board of Education  
Rockford School District No. 205  
Winnebago and Boone Counties, Illinois  
501 Seventh Street  
Rockford, Illinois 61104

### **THE ARCHITECT:**

*(Name, legal status and address)*

As identified in the Invitation for Bid.

### **PROJECT MANAGEMENT:**

Owner may self manage the project through its own project manager or designate a third-party project manager. The project manager is identified in the final Agreement.

### **TABLE OF ARTICLES**

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### **ADDITIONS AND DELETIONS:**

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

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

## ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Invitation for Bid, Instructions to Bidders, Supplementary Instructions to Bidders, the bid form, and other sample bidding and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201 as revised by Owner, or in other Contract Documents are applicable to the Bidding Documents.

§ 1.3 Addenda are written or graphic instruments issued by the Owner prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.

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

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

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

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

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

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

## ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 The Bidder by making a Bid represents that:

§ 2.1.1 The Bidder has read and understands the Bidding Documents or Contract Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, being bid concurrently or presently under construction.

§ 2.1.2 The Bid is made in compliance with the Bidding Documents and includes all information, documents and certifications required by the Owner as set forth in the Invitation for Bid and any Owner issued Addenda.

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

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

## ARTICLE 3 BIDDING DOCUMENTS

### § 3.1 COPIES

§ 3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office and from the other sources designated in the Invitation for Bid in electronic form. Hard copy sets of Bidding Documents may also be obtained from Owner upon payment of a deposit. The deposit will be refunded to Bidders who submit a bona fide Bid and return the Bidding Documents in good condition within ten days after receipt of Bids. The cost of replacement of missing or damaged documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the Bidding Documents and the Bidder's deposit will be refunded.



§ 3.1.2 Bidding Documents will not be issued directly to Sub-bidders unless specifically offered in the Invitation for Bid, or in supplementary instructions to bidders.

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

§ 3.1.4 The Owner 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 at once report to the Owner and Architect errors, inconsistencies or ambiguities discovered.

§ 3.2.2 Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall submit all such inquiries in the manner specified in section 3.2.3.

§ 3.2.3 Interpretations, corrections and changes of the Bidding Documents will be made by Addendum only. Interpretations, corrections and changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them. All inquiries regarding the Bidding Documents must be submitted in writing to the Owner's Director of Purchasing at Owner's address or as specified in the Bidding Documents. Verbal inquiries will not be accepted.

### § 3.3 SUBSTITUTIONS

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

§ 3.3.2 No substitution will be considered prior to receipt of Bids unless written request for approval has been submitted to the Owner's Director of Purchasing at least five days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the work of other contracts that incorporation of the proposed substitution would require, shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The Owner's and Architect's decision of approval or disapproval of a proposed substitution shall be final. Approved substitutions will be identified in one or more Addenda issued by Owner.

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

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

### § 3.4 ADDENDA

§ 3.4.1 Addenda will be transmitted to all who are known by the issuing office to have received a complete set of 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 Addenda will be issued no later than four days prior to the date for receipt of Bids except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

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

## **ARTICLE 4 BIDDING PROCEDURES**

### **§ 4.1 PREPARATION OF BIDS**

**§ 4.1.1** Bids shall be submitted on the forms included with the Bidding Documents.

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

**§ 4.1.3** Sums shall be expressed in both words and figures. In case of discrepancy, the amount written in words shall govern.

**§ 4.1.4** Interlineations, alterations and erasures must be initialed by the signer of the Bid.

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

**§ 4.1.6** Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall make no additional stipulations on the bid form nor qualify the Bid in any other manner.

**§ 4.1.7** Each copy of the Bid shall state the legal name of the Bidder and the nature of legal form of the Bidder. The Bidder shall provide evidence of legal authority to perform within the jurisdiction of the Work. 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 the agent's authority to bind the Bidder.

### **§ 4.2 BID SECURITY**

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

**§ 4.2.2** If a surety bond is required, it shall be written on AIA Document A310, Bid Bond, unless otherwise provided in the Bidding Documents, and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.

**§ 4.2.3** The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until either (a) the Contract has been executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn or (c) all Bids have been rejected.

### **§ 4.3 SUBMISSION OF BIDS**

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

**§ 4.3.2** Bids shall be deposited at the designated location prior to the time and date for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

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

**§ 4.3.4** Oral, telephonic, telegraphic, facsimile or other electronically transmitted bids will not be considered.



#### **§ 4.4 MODIFICATION OR WITHDRAWAL OF BID**

**§ 4.4.1** A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid.

**§ 4.4.2** Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder. Written confirmation over the signature of the Bidder shall be received, and date- and time-stamped by the receiving party on or before the date and time set for receipt of Bids. A change shall be so worded as not to reveal the amount of the original Bid.

**§ 4.4.3** Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders.

**§ 4.4.4** Bid security, if required, shall be in an amount sufficient for the Bid as resubmitted.

#### **ARTICLE 5 CONSIDERATION OF BIDS**

##### **§ 5.1 OPENING OF BIDS**

This bid is for a public contract and a project of the Rockford Public Schools. The bidding process, including advertisement, submission and opening of bids and selection of the successful bidder (if any) shall adhere to the provisions of applicable Illinois law particularly the School Code including, without limitation, the provisions of 105 ILCS 5/10-20.21. Properly identified Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders.

##### **§ 5.2 REJECTION OF BIDS**

The Owner shall have the right to reject any or 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 nonresponsive, incomplete or irregular is subject to rejection.

##### **§ 5.3 ACCEPTANCE OF BID (AWARD)**

**§ 5.3.1** It is the intent of the Owner to award a Contract to the lowest responsible Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's own best interests.

**§ 5.3.2** The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

#### **ARTICLE 6 INFORMATION**

##### **§ 6.1 CONTRACTOR'S QUALIFICATION STATEMENT**

Bidders shall submit with their Bid a properly completed and fully executed AIA Document A305, Contractor's Qualification Statement and such other or further reference documents and information as may be required in the Bidding Documents.

**§ 6.2** Intentionally Deleted.

##### **§ 6.3 SUBMITTALS**

**§ 6.3.1** The Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, after notification of selection for the award of a Contract, furnish to the Owner through Owner's project manager and to the Architect in writing:

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

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

§ 6.3.3 Prior to the execution of the Contract, the Architect will notify the Bidder in writing if either the Owner, Owners project manager or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, (1) withdraw the Bid or (2) submit an acceptable substitute person or entity. The Owner may accept the substitute person or entity or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

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

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

### **§ 7.1 BOND REQUIREMENTS**

§ 7.1.1 The successful Bidder shall furnish, prior to commencing work, bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder in an amount equal to 100% of the contract. Bonds may be secured through the Bidder's usual sources unless otherwise specified in the Bidding Documents.

§ 7.1.2 If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid.

§ 7.1.3 Intentionally Deleted.

### **§ 7.2 TIME OF DELIVERY AND FORM OF BONDS**

§ 7.2.1 The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract; or if no written contract is required, prior to commencing work on the project. In every event, bonds must be delivered to Owner prior to commencing work.

§ 7.2.2 Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond. Both bonds shall be written in the full amount of the Contract Sum.

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

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

## **ARTICLE 8 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR**

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 as revised by Owner along with General Conditions on AIA Document A201 as revised by Owner and subject to the General Terms and Conditions and Supplementary Conditions issued by Owner in the Bidding Documents.

**SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

- “District” means: Rockford School District No. 205, Winnebago and Boone Counties, Illinois.  
“IFB” means: Invitation for Bid issued by the District at any time or times, identified by a unique bid number.  
“Bidder” means: a person or entity submitting a bid to the District in response to an IFB; including successful Bidders depending on context.  
“Contractor” means: the firm, person or entity awarded a bid.

1. SPECIAL NOTICE TO BIDDERS:

- A. Bids shall be enclosed in a sealed envelope, with name of the project clearly identified, and bearing the words “SEALED BID ENCLOSED”. Use of the included BID LABEL is recommended.
- B. Bids shall be based upon the drawing and specifications included in the IFB and any District issued Addenda and each bidder shall acknowledge the receipt and inclusion of any further instruction or addenda which may be issued prior to receipt of proposal.
- C. Bids shall be opened publicly by the District, immediately after bid closing time at the office of the Board of Education, 501 Seventh Street, Rockford, Illinois.

2. METHOD OF BIDDING

Bids will be received for a single contract.

3. SIGNING BIDS:

- A. Bids which are signed for a partnership shall be signed by all partners or by an Attorney-In-Fact. If signed by an Attorney-In-Fact, there shall be attached to the bid, a Power of Attorney evidencing such authority.
- B. Bids which are signed for a corporation shall have the correct corporation name thereon and the signature of the president or other authorized officer of the corporation.
- C. Bids shall be made on the form provided which shall not be altered in any way.

4. QUALIFICATIONS:

Statement as to whether the bidder has adequate equipment to do the work properly and expeditiously and Bidder’s shall submit a Qualification Statement on AIA form A305-1986.

5. AWARD

A bid shall be deemed as having been awarded when selected by the Board of Education and formal written notice shall have been duly served by an officer or agent of the District duly authorized to give such notice.

6. TAXES:

The bidder shall not include any Illinois Retailers Occupation or use taxes on tangible property purchased in the State of Illinois in his bid. Exemption Certificates for these taxes will be furnished by the District to the Contractor when requested by him/her in writing. See Section 17 of these instructions regarding sales of tangible property into the State of Illinois.

7. FORM OF CONTRACT:

The agreement shall be the Standard Form of Agreement between District and Contractor, AIA Document A101-2007 (or current form) as revised by District for the specific project, (a form included in bidding

**SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

documents), including the General Conditions AIA form A201-2007 (or current form) as revised by District (a form included in Invitation for Bid), the Addendum included in the Invitation for Bid and revised for the specific project, the Invitation for Bid, all amendments and addenda to the Invitation for Bid issued by the District, and the successful bidders bid; provided that the District may require execution of a formal written contract.

8. ACCEPTANCE OR REJECTION OF BIDS:

The District reserves the right to reject any or all bids and to waive informalities in order to accept the bid that in its judgment will serve the best interests of the District. Any Bidder may withdraw a bid by written request received by the District at any time prior to the scheduled closing time for receipt of bids.

9. QUESTIONS ON BIDDING DOCUMENTS:

All questions relative to the Invitation to Bid, including specifications, Instructions to Bidders, and Conditions shall be in writing addressed to the District Director of Purchasing only (email addressed to [PurchasingDeptStaff@rps205.com](mailto:PurchasingDeptStaff@rps205.com) accepted). Verbal in person and telephonic questions will not be accepted other than at the pre-bid meeting. No questions may be directed to other District staff or design consultants or representatives other than at the pre-bid meeting. Changes to bidding documents will only apply if contained in an addendum issued by the District.

10. BID DEPOSIT, BONDS AND INSURANCE:

Each Bidder shall provide a Bid Deposit by Bond, Certified Check or Bank Draft in the amount of 5% of the bid total. Bid deposits will be returned to unsuccessful Bidders within (30) days after award. Bid deposits will be returned to the successful Bidder as soon as a Contract is signed and accepted for this IFB. Bidder shall provide to the District prior to commencing work, if awarded a bid, a performance bond and labor and materials payment bond for 100% of its contract and a certificate of insurance on Acord form 25 in the required amount of insurance.

11. EXAMINATION OF SITE:

Bidder shall examine the site(s) of the work prior to bidding. Bidder shall satisfy himself/herself/itself as to existing conditions, local facilities and governing factors under which Bidder will be obliged to operate in performing the work, or that may in any manner affect the work under this contract. No allowance shall be granted for any error or negligence by Bidder resulting from a failure to adequately examine the site(s).

12. PREVAILING WAGE:

This Bid requires that the successful Contractor comply with all statutes, both Federal and State, governing payment of wages to employees. The Contractor certifies that by submitting his bid that he will pay the prevailing rate of wage in this area, for the particular type of labor, in accordance with State of Illinois Codes and the Illinois department of Labor. The Contractor and each Subcontractor shall keep an accurate record to show names and occupation of all workmen employed by them in connection with this IFB. The actual hourly wage paid to each shall be recorded. These records shall be open for inspection during all working hours to any authorized District's agent and any authorized agent of the Illinois Dept. of Labor. The following clause shall be a part of this contract. *"If during the course of this contract the Department of Labor revises the prevailing rate hourly wages to be paid under this contract for any trade or occupation, the prevailing rate of wage is available on the Department of Labor official website. Contractor is directed to such website. Contractor shall have the sole responsibility and duty to ensure that the revised prevailing rate of hourly wage is paid by Contractor and all Subcontractors to each worker to whom a revised rate is applicable. Revisions to the prevailing wage as set forth above shall not result in an increase in the contract sum."*

13. DOCUMENTS TO BE RETURNED:

Forwarded with this bidding document is one complete set of specifications and bidding forms. The bidding forms are included within the bidding document. One copy of the bidding forms are to be returned as your



**SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

Bidding Document, along with the Bid Deposit, signatures, and other required information. A self-addressed label, properly identified, is provided for your use.

It is required that the Bidder's signature appears on the following bidding forms:

- A. Statement of No Interest (if applicable)
- B. Bid-Rigging Certification
- C. Minority and Women Owned Business Form
- D. Certification Regarding Debarment Form
- E. Certificate Regarding Lobbying Form
- F. OFAC Compliance Form
- G. Bidder's Certification
- H. Vendor Conflict of Interest Disclosure Form
- I. Bid Offer Form
- J. Certified Cleared Employee List
- K. AIA form A305-1986 Qualification Statement
- L. Form W-9 or substitute form W-9.
- M. Asbestos Notification

14. ILLINOIS FAIR EMPLOYMENT PRACTICES

The bidder's signature on the bid form is acceptance of and willingness to comply with all provisions of the Acts of the General Assembly of the State of Illinois relating to wages of laborers, preferences and discrimination and intimidation of employees. The Bidder is specifically subject to the Equal Employment Opportunity requirements of the Illinois Fair Employment Practices Commission and the policies of the Rockford Board of Education. Bidder agrees to comply in all respect with Federal, State and local laws and ordinances pertaining to this bid and to the performance of the Contract in the event bidder is awarded the bid. Provisions of applicable statutes and regulations are hereby incorporated by reference and are a part of the IFB, the awarded bid and any resulting contract as though fully set forth herein.

15. EMPLOYMENT OF ILLINOIS WORKERS ON PUBLIC WORKS ACT

Pursuant to the Employment of Illinois Workers on Public Works Act, during any time of excessive unemployment (defined as any month immediately following 2 consecutive calendar months during which the level of unemployment in the State of Illinois has exceeded 5% as measured by the United States Bureau of Labor Statistics in its monthly publication of employment and unemployment figures) any person or entity charged with the duty, either by law or contract, of (1) constructing or building any public works, as defined in this Act, or (2) the clean-up and on-site disposal of hazardous waste for the State of Illinois or any political subdivision of the State, and that clean-up or on-site disposal is funded or financed in whole or in part with State funds or funds administered by the State of Illinois, then that person or entity shall employ at least 90% Illinois laborers on such project. Persons or entities entering into a contract with the Rockford Public Schools in which they are obligated to construct or build any public works (defined as any fixed work construction or improvements funded in whole or part by the State of Illinois) agree to abide by the requirements of the Employment of Illinois Workers on Public Works Act.

16. TAX IDENTIFICATION NUMBER:

Under Federal Law and in accordance with instructions from the Department of Treasury and the Internal Revenue Service, the District is required to have on file appropriated tax identification information concerning the Bidder. Bidders will provide a completed form W-9 or substitute form W-9 as included in the IFB.

17. CONTRACTOR RESPONSIBILITY TO COLLECT AND REMIT ILLINOIS USE TAX:

Bidders acknowledge and understand that any resulting contract for goods and services awarded to a Bidder requires that as a contractor the person or entity and all affiliates of the person or entity will collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the

**SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

provisions of the Illinois Use Tax Act (35 ILCS 105/1 et seq.) regardless of whether the person/entity or affiliate is a "retailer maintaining a place of business within this State" as defined by the Use Tax Act (35 ILCS 105/2). (Reference the School Code of Illinois; 105 ILCS 5/10-20.21(b))

18. **PERFORMANCE and PAYMENT BOND:**

The successful bidder will be required to furnish a Performance Bond and a Labor & Materials Payment Bond satisfactory to the Board of Education. The amount of said bond shall be equal to 100% of the bid award and the cost of any said bond shall be included in the bid. Bonds are to be submitted on AIA form A312-2010 (or current form).

19. **SUBSTITUTE PRODUCTS OR MATERIALS PREQUALIFICATION:**

Products or materials proposed as "equal to" or substitute products or materials may not be bid unless pre-qualified by submission of proposed substitutes to the Director of Purchasing including all depictions, supporting documentation and specifications at least five (5) working days before the bid opening and approved by addendum issued by the District. Substitutes not approved by District issued addendum will not be accepted. Substitute proposals may be offered on more than one manufacturer.

20. **PREQUALIFICATION OF BIDDER:**

Bidders are required to furnish evidence satisfactory to the District that the Bidder's proposed subcontractors have sufficient means and experience in the types of work required to assure completion of the project in a satisfactory manner. All bidders are required to properly complete and execute AIA Document A305, "Contractor's Qualification Statement" and submit with the bid.

21. **MINORITY AND FEMALE OWNED BUSINESSES**

District #205 supports the policy of the State of Illinois to support Minority Owned Business Enterprise (MBE) and Female Owned Business Enterprise (FBE). The District seeks to identify and encourage the amount of minority and female involvement in each of the construction-related contracts issued by the District. A bidder will be required to submit the minority certification form enclosed with the bid documents. Additionally, in the event and to the extent State of Illinois funds in excess of \$250,000.00 are awarded to and used by the District for capital construction costs and design services on a school construction project, and goals are established for MBE and FBE participation in such school construction project involving the use of State of Illinois funds, and to the extent such goals are not inconsistent with Federal guidelines the District will follow such goals unless waived. The successful bidder agrees to cooperate with the District to provide necessary information to meet state funding requirements and on participation by MBE and WBE and to assist in meeting goals through certification as a MBE or WBE or certification of subcontractors. If the funds threshold is met for a project, the Invitation for Bid will so designate.

-END OF SUPPLEMENTARY INSTRUCTIONS TO BIDDERS-

## GENERAL TERMS AND CONDITIONS

“District” means the Board of Education of and Rockford School District No. 205, Winnebago and Boone Counties, Illinois.

“IFB” means an Invitation for Bid issued by the District at any time or times, identified by a unique bid number.

“Bidder” means a person or entity submitting a bid to the District in response to an IFB; including successful Bidders.

“Contract” means the agreement between the Board and Bidder arising from the award of a bid, including a written contract.

“Contractor” means the Bidder awarded a bid.

### 1. BID OPENING.

**1.01** Sealed bids will be received at the District Purchasing Department until the date and time specified at which time they shall be opened in public. No other bids will be considered after this date and time unless it is evidenced and determined that the bid was in the District’s possession prior to the scheduled bid opening time and date. Late bids shall be rejected and shall remain unopened. The District does not prescribe the method by which bids are to be transmitted; therefore, it is not responsible for any delay, regardless of the reason, in transmission of the bids. All bids delivered in person shall be deposited with the District Purchasing Department, 6th Floor, 501 Seventh Street, Rockford, IL, 61104. Use of the BID LABEL included in the IFB is recommended.

**1.02** Please return the required forms and the bid response in a SEALED envelope with the bid number, subject and your firm’s name and address clearly indicated on the envelope. NOTE: FAXED and LATE bids are not acceptable and will be rejected as non-responsive.

**1.03** Bids to be addressed as follows: **Rockford Public School District Purchasing Department  
501 Seventh St., 6<sup>th</sup> Floor  
Rockford, IL 61104  
Attn: Purchasing Department**

**1.04** No bids may be withdrawn after the official opening. All bids submitted must be valid for a minimum period of sixty (60) days after the date set for the bid opening.

### 2. BID PREPARATION.

**2.01** Bids must be submitted on the Bid Offer Form provided in the IFB and all information and certifications called for must be furnished. Bids submitted in any other manner, or which fail to furnish all information or certificates required, may be summarily rejected. Bids may be modified or withdrawn prior to the time specified for the opening of the bids.

**2.02** Bids shall be filled out legibly in ink or typewritten with all erasures, strikeouts and corrections initialed in ink by the person signing the bid. The bid shall include the legal name of the bidder, the complete mailing address, and be signed in ink by a person or persons legally authorized to bind the bidder to a contract. The name of person signing should be typed or printed below the signature. Bidder’s signature on the bid documents must be an actual signature; stamped, facsimile or typewritten signatures may disqualify the bid.

**2.03** A Bid Checklist Form is included in the IFB for use to assure all required documents are submitted. Complete and submit the Checklist form with the bid.

**3. BID ENVELOPES.** Envelopes containing bids must be sealed and addressed to the District Purchasing Department. The name and address of the Bidder and the bid number must be shown on the envelope. Use of the BID LABEL included in the IFB is recommended.

**4. ERRORS IN BIDS.** Bidders are cautioned to verify their bids before submission. Negligence or errors on the part of the Bidder in preparing the bid confers no right for withdrawal or modification of the bid after it has been opened. In case of error in the extension of prices in the bid, the unit prices will govern.

### 5. RESERVED RIGHTS.

**5.01** The District reserves the right at any time and for any reason to cancel an IFB, accept or reject any or all bids or any portion thereof, or to accept an alternate offer. The District reserves the right to waive any minor informality or defect in any IFB. Unless otherwise specified, the District will award a bid or reject bids within 60 days. The District may seek clarification from any Bidder at any time and failure to respond promptly is cause for rejection.

**5.02** The Board of Education reserves the right to have any product analyzed at a laboratory to ascertain compliance with specifications. Expense of such testing shall be by the Board of Education unless such tests prove noncompliance with specifications at which time the expense shall be the responsibility of the Contractor.

**6. INCURRED COSTS.** The District will not be liable for any costs incurred by Bidders in responding to an IFB.

**7. AWARD.** The District will evaluate bids and will award a contract to the lowest responsive and responsible Bidder

## GENERAL TERMS AND CONDITIONS

whose bid, conforming to the solicitation and Invitation for Bid will be most advantageous to the District. Determination of the lowest responsible Bidder and bid conforming to the solicitation shall not be restricted to the price quotation alone, but will include such other factors (where applicable) as (a) adherence to all conditions and requirements of the technical specifications; (b) price; (c) qualifications of the Bidder, including past performance, financial responsibility, general reputation, experience, service capabilities, and facilities; (d) delivery or completion date; (e) product appearance, workmanship, finish, taste, feel, overall quality, and results of product testing; (f) maintenance costs and warranty provisions; (g) repurchase or residual value; and (h) other such related items. The District is interested in obtaining the best overall value and reserves the right to make a selection based on its judgment of the bid that is best suited for the purpose intended. The District may (1) reject any or all bids, (2) accept other than the lowest Bidder, and (3) waive informalities or minor irregularities in bids received. The District may accept any item or group of items of an offer, unless the Bidder qualifies the bid by specific limitations. The District reserves the right to determine the lowest responsible Bidder and bid on the basis of an individual item, groups of items, or in any way determined to be in the best interests of the District. A written award or acceptance of a bid mailed or otherwise furnished to the successful Bidder within the time for acceptance specified in the bid shall result in a binding contract without further action by either party. The District, in its discretion, may require the execution of a formal written contract

### 8. PRICING.

**8.01** The price quoted for each item is the full purchase price, **including delivery to destination**, and includes all transportation and handling charges, premiums on bonds, material or service costs, patent royalties and all other overhead charges of every kind and nature. Unless otherwise specified, prices shall remain firm for the Contract period.

**8.02** If at any time after a contract is awarded, the successful Bidder(s) makes a general price reduction in the comparable price of any material covered by the contract to customers generally, an equivalent price reduction based on similar quantities and/or considerations shall apply to the contract for the duration of the contract period (or until the price is further reduced). Such price reduction shall be effective at the same time and in the same manner as the reduction in the price to customers generally. For the purpose of this provision, a "general price reduction" shall mean any horizontal reduction in the price of an article or service offered (1) to successful Bidder's customers generally, or (2) in the successful Bidder's price schedule for the class of customers, i.e., wholesalers, jobbers, retailers, etc., which was used as the basis for bidding on this contract. An occasional sale at a lower price, or sale of distressed merchandise at a lower price, would not be considered a "general price reduction" under this provision. The successful Bidder shall invoice the District at such reduced prices indicating on the invoice that the reduction is pursuant to the "price reduction" provision of this contract. The successful Bidder, in addition, shall within ten (10) days of any general price reduction, notify the Executive Director of Budget and Purchasing of such reduction by letter. Failure to do so may result in termination of the Contract.

**9. DISCOUNTS.** Prices quoted must be net after deducting all trade and quantity discounts.

**10. SPECIFICATIONS.** Reference to brand names and numbers is descriptive, but not restrictive, unless otherwise specified. Bids on equivalent items will be considered only when the bidder has submitted a request for approval of a substitute or "as equal" product or material and the District has approved the product or material as a substitute in an addendum. Bids including non-approved substitutes may be rejected as nonresponsive. Bidder is offering a referenced brand item as specified or is bidding as specified when no brand is referenced, and does not propose to furnish an "equal." The District reserves the right to determine whether a substitute offer is equivalent to and meets the standard of quality and salient characteristics indicated by the brand name and number.

**11. SAMPLES.** Samples of items, when called for, must be furnished free of expense. Individual samples must be labeled with the Bidder's name, bid number, item reference, manufacturer's brand name and number. If samples are requested, they must be sent under separate cover and not included with bid. The District will not be responsible for any bid enclosed with sample boxes.

**12. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS.** Bidders shall promptly notify the District of any ambiguity, inconsistency or error which they may discover upon examination of the IFB documents. Interpretations, corrections and changes will be made by addendum issued by the District. Each Bidder shall ascertain prior to submitting a bid that all addenda have been received and acknowledged in the offer.

### 13. INDEMNIFICATION AND HOLD HARMLESS.

The Board shall not be responsible for the acts or omissions of any Bidder and the Bidder's employees. The term Board and District, for purposes of this section 13, shall mean and include the Board of Education and Rockford School District No. 205. Bidder agrees to defend, hold harmless and indemnify the Board and every Board member, officer, agent, attorney,

## GENERAL TERMS AND CONDITIONS

servant or employee of the Board from any lawsuit, action, proceeding, liability, judgment, claim, or demand which may arise out of:

- a) Any injury to person or damage to property sustained by Bidder, its officers, agents, servants or employees or by any person, firm, or corporation employed directly or indirectly by them upon or in connection with their performance or failure to perform under the Contract, except for such injury or damage wherein it is finally determined that the Board, its board members, officers, agents, attorneys, servants or employees were grossly negligent or committed willful misconduct;
- b) Any injury to person or damage to property sustained by any person, firm, or corporation, caused by any negligent or intentional act, default, error or omission of Bidder, its officers, agents, representatives, servants, or employees or of any person, firm, or corporation, directly or indirectly employed by them upon or in connection with performance under the Contract;
- c) Fines, penalties, costs and expenses which may be incurred by or levied and assessed against the Board, or any board member, officer, agent, attorney, servant or employee of the Board in connection with Bidder's performance or failure to perform under the Contract.

Bidder at its own expense and risk shall defend any legal proceedings that may be brought against the Board, or any Board member, officer, agent, attorney, servant, or employee of the Board on any such claim or demand, and shall satisfy any judgment, fine or penalty which may be rendered or assessed against the Board, its Board member(s), or any officer, agent, attorney, servant, or employee of the Board arising out of any such claim or demand. The Board has and reserves the right to disapprove any attorney or law firm selected by Bidder to defend any such legal proceeding and to select an attorney or law firm to defend any such legal proceeding. The Board shall have the right to set off against any sums due Bidder under the Contract the amount of any indemnity cost, expense and claim under this section 13.

This indemnification, defense and hold harmless agreement shall apply to any lawsuit, action, proceeding, liability, judgment, claim or demand, of whatever name or nature, arising from or relating to acts or omissions of Bidder and/or its employees or agents with regard to the personnel, services, materials and goods provided by Bidder under the Contract, notwithstanding that Bidder may deem the same to be frivolous or without merit. It is intended that this Indemnity be interpreted in the broadest manner possible so as to insulate all of the entities, parties and individuals named above from any liability, cost or judgment, monetary or otherwise, as the same may relate to the personnel, services, material and goods provided by Bidder; provided however, this indemnification, defense, and hold harmless agreement shall not apply to any lawsuit, action, proceeding, liability, judgment, claim, demand, fine or penalty to the extent and wherein it is finally determined that the Board, its Board members, officers, agents, servants or employees were grossly negligent or committed willful misconduct which caused damage.

When required by statute, this Indemnity and Hold Harmless provision shall be construed in accordance with the Construction Contract Indemnification for Negligence Act (740 ILCS 35/1).

The provisions of this Section 13 and the assumption of defense, indemnity, liability and loss hereunder shall survive termination of the Contract.

**14. DEFAULT.** If delivery of acceptable items or rendering of services is not completed by the time promised, the District reserves the right, without liability, in addition to its other rights and remedies, to terminate the Contract by notice effective when received by Bidder, as to stated items not yet shipped or services not yet rendered and to purchase substitute items or services elsewhere and charge the Seller with any or all losses incurred. The District shall be entitled to recover its attorney fees and expenses in any successful action by the District to enforce the Contract.

**15. INSPECTION.** Materials or equipment purchased are subject to inspection and approval at the District's destination. The District reserves the right to reject and refuse acceptance of items which are not in accordance with the IFB, instructions, specifications, drawings or data or Bidder's warranty (express or implied). Rejected materials or equipment shall be removed by, or at the expense of, the Bidder promptly after rejection and if not removed within 10-calendar days after notice, such shall be returned via collect shipping.

**16. WARRANTY.** Bidder warrants that all materials, goods and services furnished hereunder will conform in all respects to the terms of the IFB and all District issued Addenda, including any drawings, specification or standards incorporated

## GENERAL TERMS AND CONDITIONS

herein, and that they will be free from latent and patent defects in materials, workmanship and title, and will be free from such defects in design to the best of the Bidder's knowledge. In addition, Bidder warrants that said materials, goods and services are suitable for, and will perform in accordance with, the purposes for which they are purchased, fabricated, manufactured and designed or for such other purposes as are expressly specified in this solicitation. The Bidder also warrants that installation of materials and products are performed in accordance with manufacturer requirements and otherwise in accordance with industry standards. The District may return any nonconforming or defective items to the Bidder or require correction or replacement of the item if improperly installed at the time the defect is discovered, all at the Bidder's risk and expense. Acceptance shall not relieve the Bidder of its responsibility.

**17. REGULATORY COMPLIANCE.** Bidder represents and warrants that the goods or services furnished hereunder (including all labels, packages and container for said goods) comply with all applicable standards, rules and regulations in effect under the requirements of all Federal, State and local laws, rules and regulations as applicable, including without limitation, the Occupational Safety and Health Act as amended and the rules and regulations of the Illinois State Board of Education, with respect to design, construction, manufacture or use for their intended purpose of said goods or services. Bidder shall furnish "Material Safety Data Sheets" in compliance with the Illinois Toxic Substances Disclosure to Employees Act, if applicable.

**18. ROYALTIES AND PATENTS.** Bidder shall pay all royalties and license fees. Bidder shall defend all suits or claims for infringement of any patent, copyright or trademark rights and shall hold the District harmless from loss on account thereof pursuant to the standard set forth in section 13.

**19. COMPLIANCE WITH LAWS AND REGULATIONS.** Bidder represents and warrants that throughout the term of any contract arising from award of a bid and any extension thereof, Bidder and all products shall be and shall remain in compliance with all applicable federal, state, and local laws and regulations including without limitation, the rules and regulations of the Illinois State Board of Education and the Regional Office of Education for Winnebago and Boone Counties.

**20. TERMINATION FOR CAUSE.**

(a) The District may terminate the Contract for cause in whole or in part, without liability:

- i. if deliveries are not made at the time and in the quantities specified,
- ii. if the Bidder fails to perform any of the provisions of the IFB, its bid and the Contract, or so fails to make such progress as to endanger performance of the Contract in accordance with its terms, and in either of these circumstances does not cure such failure within such period of time as the District may direct,
- iii. if it is determined the successful Bidder knowingly falsified information provided to the District,
- iv. if it is determined the successful Bidder offered substantial gifts or gratuities to a District official, employee, or agent whether in their official capacity or not,
- v. In the event Bidder is or becomes disqualified from holding public contracts or otherwise provides false information on any certification required in the IFB, or
- vi. in the event of a breach or failure of the Contractor to comply with any of the other terms or conditions herein.

The District, in the event cause, in the opinion of the District is curable, shall notify the Contractor in writing of the specific nature of the breach and shall request that it be cured. If the Contractor does not cure the breach within thirty (30) days of such notice, the District may immediately terminate the Contract. To terminate, the District shall give notice to the Contractor in writing, and to the extent specified therein, Contractor shall immediately terminate deliveries under the contract. Termination of the Contract shall not preclude the District from pursuing any and all remedies available to it at law or at equity.

(b) Any termination by the District, whether for cause or otherwise, shall be without prejudice to any claims for damages or other rights of the District against Contractor.

(c) The District shall have the right to audit all elements of any termination claim and Contractor shall make available to the District on request all books, records, and papers relating thereto.

(d) The Contractor shall be paid only for the performance of work up to the date of termination if the District exercises its right to terminate.

**21. TERMINATION WITHOUT CAUSE.** Unless otherwise specified in the Invitation for Bid, a contract formed by

## GENERAL TERMS AND CONDITIONS

award of a bid or a written formal contract arising from award of a bid may be unilaterally terminated by the District, for any or no reason, upon sixty (60) days written advance notice to the Contractor. Contractor may submit claims for actual work performed up to and including the day of notice of termination with appropriate documentation supporting such claim for materials, labor, or acquired inventory for equitable adjustment and any such material shall become the property of the District upon settlement.

**22. ASSIGNMENT.** The Bidder may not assign, subcontract, delegate or otherwise transfer a Contract or any of its rights or obligations hereunder, nor may it contract with third parties to perform any of its obligations hereunder except as contemplated in this contract, without the District's prior written consent. Subcontractors identified within a construction bid or forming part of a Bidder's bid subject to the right of the District to accept or reject any bid and District rights relating to acceptance of subcontractors, are approved without further written consent.

**23. FORCE MAJEURE.** The obligations of the Contractor to perform under the Contract will be excused during each period of delay caused by acts of God or by shortages of power or materials or government orders which are beyond the reasonable control of the Contractor obligated to perform ("Force Majeure Event"). In the event that the Contractor ceases to perform its obligations under any contract formed by award of bid or written contract arising therefrom due to the occurrence of a Force Majeure Event, the Contractor shall: (1) immediately notify the District in writing of such Force Majeure Event and its expected duration; (2) take all reasonable steps to recommence performance of its obligations under this contract as soon as possible. In the event that any Force Majeure Event delays Contractor's performance for more than thirty (30) days following notice pursuant to the Contract, the District may terminate this contract immediately upon written notice to the Contractor.

### **24. BID CERTIFICATION.**

**24.01** The Bidder's signature on a bid certifies: (a) The bid is genuine and not made in the interest of, or on the behalf of, any undisclosed persons, firms or corporation and is not submitted in conformity with any agreement or rules of any group association, or organization; (b) Bidder has not directly or indirectly induced or solicited any other Bidder to enter a false or sham bid; (c) Bidder has not solicited or induced any person, firm or group to refrain from bidding; (d) Bidder has not sought by collusion or otherwise to obtain for self-interest any advantage over any other Bidder or the District.

**24.02** The Bidder's signature on the Bid Offer Form certifies that they have read and understand the contents of this solicitation and agree to furnish at the prices shown any or all of the items and/or services, subject to all instructions, conditions, specifications and attachments hereto. Failure to have read all the provisions of the IFB or Addenda shall not be cause to alter any resulting contract, request additional compensation, or relieve Bidder from obligation to perform under this contract.

**24.03** The Bidder's signature on the Bid Offer Form will be construed as acceptance of and willingness to comply with all provisions of the Acts of the General Assembly of the State of Illinois including, without limitation, laws rules and regulations relating to wages of laborers, and discrimination and intimidation of employees. The bid and the resulting Contract are specifically subject to the Equal Employment Opportunity requirements of the Illinois Human Rights Act, Federal statutes and the policies and procedures of the District. Bidder agrees to comply in all respects with Federal, State, and local laws, ordinances and regulations pertaining to this bid and to the performance of the Contract in the event the Bidder is awarded the bid. Provisions of applicable statutes enacted by governmental bodies having jurisdiction are hereby incorporated by reference as though fully set forth herein and became a part of this IFB and specifications.

**25. MODIFICATIONS.** The Contract can be modified only by written bi-lateral modification signed by the parties or duly authorized agents.

**26. ADDENDA.** If it becomes necessary to revise any part of this bid, a written addendum will be issued by the District. If the District issues addenda, such addenda shall become part of the IFB and contract documents. A Bidder who fails to obtain the District's addenda, and who has previously submitted an offer, shall not be relieved from any obligation in the bid submitted.

**27. BINDING EFFECT.** The terms, conditions, provisions, and undertakings of any contract formed by award of a bid shall be binding upon and inure to the benefit of each of the parties thereto and their respective successors and assigns.

**28. PROHIBITED CONFLICT OF INTEREST.** Various statutes of the state of Illinois prohibit interest of School Board members in contracts and others prohibit interest of employees in contracts of the District as do District policies. Bidder by submitting a bid agrees to refrain from entering into any contract with the District where a Board member or employee of the District has a prohibited interest.

## **GENERAL TERMS AND CONDITIONS**

**29. EQUAL OPPORTUNITY EMPLOYER.** The Rockford Public School District is an Equal Opportunity Employer and encourages bids or proposals from any company or individual regardless of race, gender, national origin, religion or age.

-END OF GENERAL CONDITIONS-



## SUPPLEMENTARY CONDITIONS

“District” means the Board of Education of and Rockford School District No. 205, Winnebago and Boone Counties, Illinois.

“IFB” means an Invitation for Bid issued by the District at any time or times, identified by a unique bid number.

“Bidder” means a person or entity submitting a bid to the District in response to an IFB; including successful Bidders which are awarded a bid; may also be identified as Contractor which is awarded a bid.

“Contract” means the agreement between the Board and Bidder arising from the award of a bid, including a written contract.

The following supplement, modify, change, delete from or add to the General Conditions of the Contract for Construction, AIA document A201 2007 (or current version), as revised by District and included in the IFB; hereinafter referred to as General Conditions.

Where any Article of the General Conditions is modified or any paragraph, subparagraph, or clause thereof is modified or deleted by these supplements the unaltered provisions of that article, paragraph, subparagraph or clause shall remain in effect. In the event of a conflict between the General Conditions and these Supplementary Conditions, which are complementary, the Supplementary Conditions shall prevail.

### 1. INSURANCE.

A. Bidder’s Liability Insurance shall include all major divisions of coverage and be on a comprehensive basis including:

1. Premises operations
2. Independent Contractor’s protective
3. Products and completed operations
4. Personal injury liability with employment exclusion deleted.
5. Contractual, including specified provision for Indemnification under General Conditions section 13.
6. Owned and non-owned motor vehicles
7. Broad form property damage including completed operations.

B. The insurance required by General Conditions paragraph 11.1.1 shall be written for not less than the following limits, or greater if required by law:

1. Workman’s Compensation:
  - a. Statutory Workman’s compensation.
  - b. Employers’ liability - \$500,000.00 per accident and aggregate disease.
2. Builder’s Risk Insurance will be carried and covered by the Board of Education separately.
3. Comprehensive General Liability and Contractual Liability limits, Automobile Liability and Umbrella Coverage will depend on the category of the project. Category 1 projects will have a contract amount in the range of \$0.00 to \$1,000,000.00 and category 2 projects will have a contract amount in excess of \$1,000,000.00. The minimum liability limits per category are:

## SUPPLEMENTARY CONDITIONS

## Comprehensive general liability and contractual liability

	<u>CATEGORY 1 CONTRACTS</u>	<u>CATEGORY 2 CONTRACTS</u>
a. Bodily injury:	\$1,000,000.00 each person \$1,000,000.00 each occurrence \$1,000,000.00 aggregate	\$2,000,000.00 each person \$2,000,000.00 each occurrence \$4,000,000.00 aggregate
b. Property damage:	\$1,000,000.00 each occurrence \$1,000,000.00 aggregate	\$1,000,000.00 each occurrence \$1,000,000.00 aggregate
c.	Shall include products and completed operations insurance as above for 1 year after final payment (Category 1 AND Category 2).	

## 4. Comprehensive Automobile Liability Category 1 AND Category 2

- |    |                  |                                                              |
|----|------------------|--------------------------------------------------------------|
| a. | Bodily Injury:   | \$1,000,000.00 each person<br>\$1,000,000.00 each occurrence |
| b. | Property Damage: | \$1,000,000.00 each occurrence<br>\$1,000,000.00 aggregate   |

## 5. If the General Liability coverage is provided by a commercial liability policy, the:

- |    |                                                                                                                                                  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------|
| a. | General aggregate shall not be less than \$2,000,000 for Category 1 and \$4,000,000.00 for Category 2 and shall apply in total, to this project. |
| b. | Fire damage limit shall be not less than \$50,000 on any one fire.                                                                               |

## 6. Umbrella Liability Coverage:

## CATEGORY 1

## CATEGORY 2

\$3,000,000.00 each occurrence  
\$3,000,000.00 aggregate

\$5,000,000.00 each occurrence  
\$5,000,000.00 aggregate

## C. Certificate of Insurance:

The insurance shall be written on the Comprehensive General Liability Policy Form. An insurance certificate shall be submitted on current Accord Corporation form 25 showing the full legal name of the Bidder. The certificate must show the coverage is current as of the date of bid award and shall be renewed and in full force at all times to completion of the Contract. Renewal certificates must be submitted to the District when issued. Contractor shall name the District as additional insured on a primary and non-contributory basis on all liability coverages.

## D. Cancellation Notice:

All certificates and policies shall indicate that the carrying company will not cancel without giving the District notice in writing thirty (30) days prior to date cancellation is to become effective.

## E. Subcontractors Comprehensive Insurance:

Bidder should protect itself by requiring subcontractors to maintain workman's compensation insurance and insurance of the same kind in amounts specified above.

## F. Contractors Comprehensive Insurance:

Bidder shall carry sufficient comprehensive insurance on Bidder's equipment at the work site and in route to and from the work site. Bidder shall require similar coverage of subcontractors. The District accepts no responsibility to provide Bidder insurance coverage and accepts no liability for loss or damage to Bidder's machinery, vehicles or equipment.

## SUPPLEMENTARY CONDITIONS

### 2. INDEPENDENT CONTRACTOR.

2.01 Bidder is and expressly agrees to be an "Independent Contractor" and nothing in the Contract is intended nor shall be interpreted or construed to create an employer/employee relationship with Bidder or any of its employees. Bidder is solely and completely responsible for its employees and compliance with all tax and employment costs including, without limitation, withholding obligations, Federal and State Income Tax, Social Security, Unemployment Compensation and Workers Compensation.

2.02 Bidder expressly agrees that it shall bear all risk of loss, remain liable for any such taxes, contributions, or deductions and shall indemnify the Board, its members, agents, officers, employees, successors and assigns for any liability including interest, penalties and attorney's fees, if any, assessed against the District as a result of any violation of this provision. At the option of the Board, if such expense is assessed against the District, such expense may be withheld by the Board in reasonable pro rata amounts from compensation subsequently paid to Bidder.

2.03 Bidder hereby covenants and agrees that Bidder shall not represent to any third party that Bidder or its employees are employees of the Board. The Board is not a party to nor is the Contract subject to any union contract or collective bargaining procedures involving Contractor's employees. The provisions of this Section 2 shall survive termination of the Contract.

### 3. CLEANING AND PROTECTION OF BUILDING.

The Contractor shall not allow rubbish, debris, or unused material related to the execution of the Contract to accumulate on the premises. Contractor shall on a daily basis or otherwise as directed by the District's representative or designee, clean or pay the cost of cleaning all debris and dirt, etc., which may accumulate on the site due to the execution of the Contract.

### 4. PROJECT MANAGEMENT/DESIGNATED REPRESENTATIVE.

4.01 The District reserves the right to engage the services of a third party Program or Project Manager to represent the District or to self-manage a project. If self-managed, references in the bidding documents to Project Manager or Program Manager shall mean the District's project manager or designated representative.

4.02 In the event this project is managed by a third-party manager, representative or designee, all communications, requests and instructions shall be copied to the District and the District's third-party manager.

4.03 Bidder shall follow the instructions and decisions of District's representative or designee as though made and issued by District. District's representative or designee shall designate the permitted hours of construction activity for this project and Bidder shall not conduct construction or other activities relating to the project at the project site outside the permitted hours without the express prior consent of the District's representative or designee.

### 5. SCHEDULE OF VALUES.

5.01 Contractor shall submit a schedule of values to the Architect before submitting the first payment request on AIA Document G703 - 2017 (or current) filed with the District in accordance with Article 9 of General Conditions.

5.02 The schedule of values and a complete submittal log listing all submittals as delineated in the drawings and specification shall be submitted by Contractor not more than 30 calendar days following receipt of the Notice of Award.

5.03 Contractor, not more than 45 days following the Notice of Award, shall provide to the District a complete list of subcontractors and suppliers and adjust the schedule of values to accurately reflect all subcontract and purchase order values.

5.04 All submittals as delineated in the drawings and specifications shall be submitted within 60 days following the receipt of the Notice of Award.

5.05 The deadlines for submittals and the schedule of values may require accelerated submission to meet project milestones. Accelerated submission is within the discretion of the Contractor.

## SUPPLEMENTARY CONDITIONS

### 6. CHANGE ORDER PROCEDURES.

In order to process change orders, it is important that procedures are followed and documentation provided in a manner that allows timely processing. Field Orders will be issued for all changes that occur on the project. The Field Order may be in the form of an email message from the District's project manager with the Field Order number in the Subject line. Changes are typically associated with a response to a RFI, Architect's Supplemental Instructions (ASI), or Field Conditions.

#### 6.01 FIELD ORDERS.

A Field Order will be issued for all change conditions. It is a document that tracks changes to the project and will provide directions for processing. All change order requests must include the Field Order number and the number of any related ASI.

The Field Order provides direction on how to proceed.

- You are authorized to proceed with the change, subject to the method of payment listed in the following section, or
- You are directed not to proceed until you have submitted all cost and schedule information within 7 days and the costs have been approved by RPS.

There are 4 methods of payment:

- **No Cost** - means that the information that you have received is a clarification of information contained in your contract and will not require a change to your contract
- **Lump Sum** - means that an agreement exists on a lump sum amount for a contract modification. This is rarely used as a way to process contract changes.
- **Time and Materials** - tickets will need to be submitted to the District through its Project Manager or other designated representative on a daily basis. Tickets that are not submitted on a daily basis will be subject to rejection. A signed ticket does not guarantee additional payment or acceptance of pricing. The signature is only to confirm that the time spent on a particular task has been documented. The only authority that can accept, approve, and or modify changes to the contract is a District project representative. A District employee that is not a project representative is not authorized to commit the district for additional work. This would include but not be limited to school administrators, teachers, or maintenance personnel.
- **Submit Quotations** - submit a Change Order Request subject to the change order requirements listed in a subsequent section of this document. Please note that you are not to proceed with any additional work unless you have a signed field order. If you proceed with extra work without a signed field order you do so at your own risk.

#### 6.02 CHANGE CONDITIONS.

**RFI's.** All RFI's will be submitted by the general contractor to the Architect of Record with a copy sent to the Project Manager. The response will include a field order will direct you on how you are to proceed.

**BULLETINS.** When an ASI is issued, a Field Order will be included and it will direct you on how to proceed.

**FIELD CONDITIONS.** If you encounter unknown conditions and think that you are entitled to additional compensation, notify the Architect of Record and the Project Manager immediately and include all appropriate documentation. A Field Order will provide direction on how you are to proceed.

#### 6.03 CHANGE ORDER REQUESTS.

To aid in the processing of change orders, we will need certain information included in each of the change order requests. A detailed cost breakdown that includes quantities, labor hours, labor and material costs need to be included for each trade that is requesting additional compensation. Please use the Cost Proposal Worksheet available from the District Project Manager. Include all backup that is needed to evaluate the change order request. Examples of this would be quotes received from subcontractors, material suppliers, sketches that identify how quantities were calculated, worksheets, and pictures may also be appropriate for our analysis.

## SUPPLEMENTARY CONDITIONS

### 6.04 FEES.

The fees shall be calculated as a lump sum to all changes. The fees are to be calculated per the information provided below.

#### GENERAL CONTRACTOR FEES

12% allowed for self-performed work- this includes overhead, profit, bond and insurance.

5% allowed for subcontracted work - this includes overhead, profit, bond and insurance.

#### SUBCONTRACTOR FEES

12% allowed for self-performed work - this includes overhead, profit, bond and insurance.

5% allowed for sub-subcontractor work - this includes overhead, profit, bond and insurance

### 6.05 LABOR RATES/CHARGES.

Hourly labor rates are limited to the following charges:

- Hourly Wage
- Fringe Benefits
- FICA
- FUTA
- SUTA
- Workmen's Compensation
- General Liability (if premiums are based upon payroll cost)
- Small tools and consumables

Workmen's compensation rates must reflect the EMR of the Contractor and incorporate any discounts afforded to the Contractor by its carrier. Workmen's compensation rates must be based upon the classification of work actually being performed on the project.

Allowance for small tools and consumables shall be limited to 5% of the hourly wage.

Contractor may be required to document the General Liability rate. Equipment and vehicles shall not be included in the hourly wage. Equipment can be included in the change order proposal as separate costs if such items are required for the work. No charges for bonds shall be allowed as this is included in the 12% markup on labor and materials.

## 7. APPLICATION FOR PAYMENTS.

- A. Payment requests shall be with 10% retainage. Applications per payment shall be submitted monthly. Upon issuance of a certificate of substantial completion by the design professional, Contractor may request reduction of retainage to the greater of 5.00% or twice the value of outstanding punch list items and closeout work. Value of outstanding punch list items and closeout work shall be determined by the design professional. Final request for the "retainage" amount shall submitted after completion of "Final Acceptance of Contracted Project" form.
- B. "Request for Payment" shall be submitted to the Architect on AIA Document G702/G703 - 2017 (or current). A Partial Waiver of Lien will be required, concurrent with each payment request, in the net amount of each request. Waivers of lien from each subcontractor and material supplier to whom payment has been made, shall be required with subsequent payment requests. Final waiver of lien from subcontractors and material suppliers shall be submitted with final pay request.
- C. The District's Board of Education regular meetings generally occur on the second and fourth Tuesdays of each month (except one meeting in July and December) as specified by Board of Education Resolution and found on the web site for the Board of Education as the Board Calendar ([www.rps205.com](http://www.rps205.com)). Architect approved payment requests must be received in the Finance Department not less than 10 business days prior to a scheduled Board meeting for the request to be considered at that Board meeting.
- D. The Board of Education shall comply with the provisions of the Local Government Prompt Payment Act, 50 ILCS 515/1, et. seq.

## SUPPLEMENTARY CONDITIONS

8. GUARANTEES.

If within one (1) year after the date of “Final Acceptance of Contracted Project” any of the work is found to be defective or not in accordance with the contract documents, the Contractor shall correct the defect promptly after receipt of written notice from the District to do so unless the District has previously given the Contractor a written acceptance of such condition. The District shall give such notice promptly after discovery of the condition.

9. CONFLICT OF INTEREST.

The State of Illinois School Code is very explicit in its direction as to the relationship of the parties involved in contracts and transactions. Section 33-5 (105 ILCS 5/33-5) of said code:

*No member or employee of the Board of Education shall be directly or indirectly interested in any contract, work, or business of the District, or in the sale of any article, the expense, price or consideration of which is paid by the District nor in the purchase of any real estate or property belonging to the District or which shall be sold by virtue of legal process at the suit of the District. Whoever violates any provision of this Section shall be guilty of a Class A misdemeanor. (P.A.-2267)*

10. TEMPORARY USE OF FACILITIES.

9.01 Utilities. District will allow use of District’s existing electric, gas and water utilities conditioned on full compliance with Architect’s connection and use specifications. District may revoke any or all utility use at any time or times in the event such use disrupts or interferes with the normal daily operations of District schools. Utility use is restricted to use directly associated with the construction of the project. Utility use for winter heating is restricted to work areas which are permanently enclosed, including windows temporarily enclosed.

9.02 The Contractor may NOT use District toilet facilities or washrooms.

11. EMPLOYEE CONDUCT.

**All of Contractor’s employees, agents, principals, and consultants shall abide by Federal, State and Local Laws and Board of Education policy while on District premises. No employee, agent or principal of Contractor and its consultants and vendors shall fraternize with any student of the school district. Any Contractor employee whose conduct is judged unfit by District shall not be permitted to work on the project. Contractor agrees to comply with and abide by all rules, regulations and policies of the District and the direction of the District’s representative or designee relating to access to and conduct upon District Premises.**

**Contractor employees, agents and principals and its consultants and consultants employees and agents shall not perform work within District buildings and on school grounds for more than 30 school days within any school year (July 1 to June 30) unless a criminal history records check has been conducted by Contractor, the individual(s) is found to have not violated any of the drug or criminal offenses listed in the criminal history records check provisions in the School Code 105 ILCS 5/10-21.9(f) (the Act), and the Contractor so certifies the same to be true on the Certified Cleared Employee List.**

**Contractor employees, agents and principals and its consultants and consultant’s employees and agents shall not be permitted to be present on District grounds unless a Statewide Sex Offender Database check and a Statewide Child Murderer and Violent Offender Against Youth Database check has been conducted regarding all such employees in accordance with and subject to the provisions of the Act. Contractor employees, agents and principals and its consultants and consultant’s employees and agents who are found to have had convictions of the enumerated criminal or drug offenses listed in the Act or who appear in the noted databases shall not be permitted at any time to be present on school grounds.**

**Contractor employees accessing school grounds where students attend are required to have in their possession identification issued by the District. All such persons must check in with the school main office to receive a visitor’s identification at which time the individual must present a government issued photo identification which will be used to verify the individual’s name appears on the Certified Cleared Employee List. At the conclusion of the work day, plastic or hard cover**

## SUPPLEMENTARY CONDITIONS

**identification must be returned to the school. Contractor employees who access District grounds where no students attend (such as new school construction and administrative buildings where students do not attend) must carry a government issued photo identification which can be used to verify their name on the Certified Cleared Employee List.**

**Not less than 10 days prior to the commencement of work, Contractor shall submit to the District, with a copy to District's representative or designee, a written certification on a form provided by District (Certified Cleared Employee List), signed by Contractor under oath that the employees listed on the certification have been the subject of a criminal history records check (for employees working more than 30 school days in District buildings and on school grounds), and a Statewide Sex Offender Database check and a Statewide Child Murderer and Violent Offender Against Youth Database check for all employees accessing District grounds. Contractor shall update the certification as and when necessary to keep such certification list current.**

**The District and District's representative or designee may from time to time and at multiple times in their discretion and without notice check the identification of all persons accessing school grounds by or through the Contractor to assure such persons appear on the certification list and where necessary, have in their possession a valid District issued identification. Contractor warrants that it shall immediately notify the District if a certified cleared employee is convicted of an enumerated offense or their name appears on any of the noted Databases. A violation of this section is a material breach of contract.**

12. **MANDATORY PRE-CONSTRUCTION CONFERENCE.**

Prior to beginning the work, Bidder shall meet at the project site or other location designated by the District, with District's representative or designee, installers, installers of related items, and other entities including (where applicable) District's insurer and Architect. A Record of discussions and agreements will be kept and a copy furnished to each participant.

The conference shall be conducted not less than 7 nor more than 21 days prior to the commencement of construction and shall be scheduled by the District's representative or designee. District's representative or designee may schedule additional mandatory conferences in its discretion. District's representative or designee shall provide advance notice to participants prior to convening Pre-construction Conferences.

13. **COMPLETION REQUIREMENTS.**

The Order to Proceed, which will be issued by the District at a date following the bid award, will indicate the date the work is to commence and establish the milestone dates if not otherwise set forth in the IFB or the Contract.

14. **MEASUREMENT AND LAYOUT.**

Before ordering material or doing work, each Bidder shall be responsible for measuring the physical dimensions of the site to his/her needs sufficient to execute the work desired by the District. Bidder shall be responsible for the correctness of measurements. Measurements given on the drawings are for references only, for which the District accepts no responsibility for accuracy.

15. **SITE SECURITY.**

Bidder shall be responsible for site security including the erection of temporary construction site fencing which shall be of a chain link variety and which shall be maintained by Bidder at all times from commencement of construction to final acceptance of the Work. Bidder shall take reasonable actions in order to restrict access to construction sites, both inside and outside of District buildings, 24 hours per day, 7 days per week until construction is complete. Bidder shall provide site security to assure that unauthorized persons do not access the construction site (outside of school buildings) and proper barricades and safety notices and warnings are posted within buildings to assure the integrity and safety of persons and property in buildings and on the construction site, construction activities and construction materials.

## SUPPLEMENTARY CONDITIONS

16. **CONSTRUCTION ACTIVITIES.**  
No construction activities shall occur on construction sites and within school buildings outside the limits established by District or District's representative or designee. District's representative or designee shall issue construction time periods with proper description as to when and where construction activities may occur at each construction and school site. No construction activities shall proceed in the absence of appropriate barricades and warnings.
17. **BID.** Each Contractor is to return one (1) set of their bid with original signatures.
18. **ASSIGNMENT OF WARRANTIES/DELIVERY OF MANUALS.**  
On or before the date of substantial completion of the project, Bidder shall assign to District all right, title and interest in and to equipment and product warranties issued by the product manufacturer. Bidder shall provide to District's representative or designee a complete list of all products and equipment furnished and or installed by Bidder in and to the project along with the name of the manufacturer of each product and item of equipment and take all necessary steps to transfer warranties to the District. Bidder shall within the same time frame deliver to District all product and equipment manuals installation instructions and operating instructions and registration materials.
19. **COMPLIANCE WITH FREEDOM OF INFORMATION ACT.**  
The District is required by law to comply with the provisions of the Freedom of Information Act, 5ILCS 140/1 et seq., as amended from time to time ("Act"). The Act requires the District to provide, if requested to do so by any person, copies of documents that maybe in your possession and related to this contract. As a condition of the Contract, Bidder agrees to and shall provide to the District, copies of any and all such documents when directed to do by the District. All such documents shall be delivered to the District's Legal Department NO LATER THAN five (5) working days after the date of the District's direction to provide such documents. Failure of the Bidder to provide documents within said five (5) working days as provided above shall result in the assessment of any and all penalties, damages, and/or costs incurred by the District to the Bidder which shall be paid immediately by the Bidder upon demand of the same by the District.
20. **RECORDS MAINTENANCE AND SECURITY.**
  - a. **Records.** The Bidder shall establish and maintain a reasonable accounting system that enables the District to readily identify Bidder's assets, expenses, costs of goods and use of funds related to this Agreement (Records). Such Records shall include, but not be limited to, accounting records, written policies and procedures; all paid vouchers, including those for out-of-pocket expenses, other reimbursement supported by invoices; Contract amendments and change order files; back-charge logs and supporting documentation; insurance documents, payroll documents; timesheets; memoranda; training records; and correspondence. In addition, without limiting the foregoing, Bidder shall maintain a record of training of its employees including the nature and extent of training, a record and copy of required employee licenses for operation of vehicles and equipment and shall produce such records upon demand by the District.
  - b. **Retention.** The Bidder shall, at all times during its performance of the Contract and for a period of three years after the termination of the Contract, maintain Records, together with all supporting or underlying documents and materials. Bidder shall upon written request by the District at any time or times, whether during or after termination of the Contract, and at Bidder's expense, produce the Records for inspection, copying and audit (including copies and extracts of records as required) by the District. The Records shall be made available to the District, upon three-day written notice, during normal business hours at Bidder's principal office if located in Rockford, Illinois or at such other location specified by the District including the District offices. Upon expiration of the retention period specified in this paragraph 17b, prior to destruction of the Records, Bidder shall provide not less than thirty (30) days written notice of its intent to destroy any part or all of the Records, specifying the nature, character and extent of Records to be destroyed and the District may at its discretion and expense obtain all Records or copies of Records intended to be destroyed. District shall ensure the District's right to access and audit the Records in the possession of, created or maintained by Bidder and its agents and representatives. Bidder shall notify in writing its agents and representatives of the requirements of records, retention and audit as set forth in this paragraph



## SUPPLEMENTARY CONDITIONS

17. Any and all contracts or agreements between Bidder and any other party related to the Contract shall expressly include the records retention and audit provisions of this paragraph 17.
- c. **Audit.** The District and its authorized representatives shall have the right to audit, to examine, and to make copies of or extracts from all Records (in whatever form they may be kept, whether written, electronic, or other), including, but not limited to, those kept by Bidder, its agents and representatives. Cost of any examination or audit of Records conducted by the District will be borne by the District (excluding any cost to produce Records under paragraph 17b), except where the examination or audit identifies overpricing or overcharges (of any nature) by the Bidder to the District in excess of one-half of one percent (0.5%) of the total Bidder Contract billings in which event the entire cost of the examination or audit shall be Bidder's cost and Bidder shall reimburse the District for the total cost of the examination or audit. If the examination or audit reveals substantive findings of fraud, misrepresentation, or non-performance by Bidder, its employees, agents or representatives, Bidder shall pay all costs of the examination or audit; and if paid by the District, reimburse the District for all such costs. In the event Bidder fails to pay such costs within thirty (30) days of demand by the District, the District may offset any such costs unpaid by Bidder from any balance due Bidder or at the election of the District, proceed to collect such costs by any available means including litigation in which event the costs of collection including reasonable attorney's fees shall also be paid by Bidder.
  - d. **Records Ownership and Security.** Bidder hereby acknowledges and agrees that all records, information and documents, whether in electronic or written form or otherwise, received by Bidder from the District or otherwise obtained or received by the Bidder, its employees, agents and representatives during or in conjunction with performance of the Agreement and all records, whether in electronic or written form or otherwise, created by Bidder in performance of its obligations under the Contract (The Records) shall be and remain owned by the District. Bidder shall use all reasonable and timely means to protect and preserve all such records and to deliver the same to the District upon demand. The Records are subject to access and examination by the BOARD and any federal agency with relevant responsibility for any federal grant funds providing funding for this Agreement.  
Bidder shall cooperate and produce The Records for inspection and examination by any governmental agency, including District, providing funding for the Contract.
  - e. **Confidentiality.** The Records and all documents and information received, accessed or observed by Bidder in performance of the Contract shall be and remain confidential. In the performance of its obligations under the Contract, Bidder may acquire access to certain information, including but not limited to, information concerning students and/or school personnel, and other confidential and/or proprietary information, including the Records (collectively, "Confidential Information"). Bidder will not, absent court order issued by a court of competent jurisdiction, without the prior written consent of the District, and regarding student record information, without the express prior written consent of the parent/guardian, disclose, re-disclose or make available to anyone, at any time, either during Bidder's engagement with the District or following termination of the Contract, for any reason whatsoever, any of the Confidential Information. The provisions of this Section shall survive the termination of the Contract.
21. **TITLE AND STORAGE.**
- 20.01 Title to goods, machinery, equipment and materials furnished under a bid Contract shall remain in the Contractor until delivered and accepted or installed in a project. Contractor is responsible for the security, including risk of loss and insurance, of all such goods, machinery, equipment and materials until accepted by the District or installed in a project. Title to such goods, machinery and equipment will transfer to the District upon the later of delivery and acceptance by the District's designated representative or installation or incorporation of such item(s) into the project.
- 20.02 In the event a Contract requires custom, specially fabricated or specialty manufactured products, goods, machinery or equipment (not including commodity items) and delivery of such item(s) is required in advance of installation of or incorporation into a project in order to meet construction milestones, Contractor may submit a pay request for such item(s) in storage and prior to installation or incorporation into the project upon the following conditions:

### SUPPLEMENTARY CONDITIONS

- a) The item(s) is in fact a custom product, specially fabricated or specialty manufactured solely for the project;
- b) The item(s) is delivered more than 30 days in advance of installation or incorporation into the project;
- c) The item(s) is stored at an insured and bonded warehouse facility located in Winnebago or Boone Counties Illinois at Contractor's expense and under the name of both Contractor and the District and Contractor provides a storage receipt issued by the warehouse;
- d) The item(s) cannot be released from storage without consent of the District;
- e) In the event of termination of the Contract, the District may offset any payments made to Contractor for the item(s) against any amounts otherwise due Contractor or, at the option and sole discretion of the District, recover from Contractor the amount of payment made for the item(s) or take delivery of the item(s);
- f) Contractor presents a certificate of insurance for the full contract value of the item(s) in storage;
- g) Contractor accepts all risk of loss and damage of such item(s) until installed in or incorporated into the project;
- h) The Contractor marks or tags the item(s) as for the District project using the IFB number and project title and provides photographs of the marking to the District. A District representative may inspect and verify the item(s) and photographs, marks or tags such item(s);
- i) Payment by the District for such item(s) does not relieve Contractor or its obligations under the Contract nor warranty.

### QUESTIONS

Any questions regarding this bid must be submitted in writing to the Director of Purchasing (email at [PurchasingDeptStaff@rps205.com](mailto:PurchasingDeptStaff@rps205.com)).

-END OF SUPPLEMENTARY CONDITIONS-

**Prevailing Wage rates for  
Winnebago County  
effective Sept. 1, 2017**

Trade Title	Region	Type	Class	Base Wage	Fore- man Wage	M-F OT	OSA	OSH	H/W	Pension	Vacation	Training
ASBESTOS ABT-GEN	ALL	BLD		37.75	38.75	1.5	1.5	2	8.52	17.79	0.00	0.80
ASBESTOS ABT-MEC	ALL	BLD		18.95	0.00	1.5	1.5	2	2.70	3.35	0.00	0.00
BOILERMAKER	ALL	BLD		48.49	52.86	2	2	2	6.97	19.61	0.00	0.90
BRICK MASON	ALL	BLD		39.42	42.17	1.5	1.5	2	10.10	12.02	0.00	0.89
CARPENTER	ALL	BLD		39.40	43.73	1.5	1.5	2	10.39	13.90	0.00	0.60
CARPENTER	ALL	HWY		43.74	45.49	1.5	1.5	2	10.65	14.00	0.00	0.49
CEMENT MASON	ALL	ALL		36.99	39.74	1.5	1.5	2	10.85	15.49	0.00	0.50
CERAMIC TILE FNSHER	ALL	BLD		33.88	33.88	1.5	1.5	2	9.40	5.86	0.00	0.75
COMMUNICATION TECH	ALL	BLD		39.00	42.90	1.5	1.5	2	12.84	13.67	0.00	0.78
ELECTRIC PWR EQMT OP	ALL	ALL		37.89	51.48	1.5	1.5	2	5.00	11.75	0.00	0.38
ELECTRIC PWR EQMT OP	ALL	HWY		41.45	56.38	1.5	1.5	2	5.50	12.87	0.00	0.73
ELECTRIC PWR GRNDMAN	ALL	ALL		29.30	51.48	1.5	1.5	2	5.00	9.09	0.00	0.29
ELECTRIC PWR GRNDMAN	ALL	HWY		32.00	56.38	1.5	1.5	2	5.50	9.92	0.00	0.66
ELECTRIC PWR LINEMAN	ALL	ALL		45.36	51.48	1.5	1.5	2	5.00	14.06	0.00	0.45
ELECTRIC PWR LINEMAN	ALL	HWY		49.67	56.38	1.5	1.5	2	5.50	15.40	0.00	0.88
ELECTRIC PWR TRK DRV	ALL	ALL		30.34	51.48	1.5	1.5	2	5.00	9.40	0.00	0.30
ELECTRIC PWR TRK DRV	ALL	HWY		33.14	56.38	1.5	1.5	2	5.50	10.29	0.00	0.59
ELECTRICIAN	ALL	BLD		45.50	50.05	1.5	1.5	2	12.84	18.73	0.00	0.91
ELEVATOR CONSTRUCTOR	ALL	BLD		46.83	52.68	2	2	2	13.57	14.51	3.77	0.60
GLAZIER	ALL	BLD		39.53	39.53	1.5	1.5	1.5	10.55	8.20	0.00	1.25
HT/FROST INSULATOR	ALL	BLD		33.83	36.87	1.5	1.5	2	9.10	20.67	0.00	0.48
IRON WORKER	ALL	ALL		38.33	44.08	2	2	2	12.27	24.57	0.00	0.60
LABORER	ALL	BLD		32.84	33.84	1.5	1.5	2	8.52	17.79	0.00	0.80
LABORER	ALL	HWY		35.00	35.75	1.5	1.5	2	8.52	20.73	0.00	0.80
LABORER, SKILLED	ALL	HWY		37.75	38.50	1.5	1.5	2	8.52	20.73	0.00	0.80

LATHER	ALL	BLD		39.40	43.73	1.5	1.5	2	10.39	13.90	0.00	0.60
MACHINIST	ALL	BLD		45.35	47.85	1.5	1.5	2	7.26	8.95	1.85	0.00
MARBLE FINISHERS	ALL	BLD		33.88		1.5	1.5	2	9.40	5.86	0.00	0.75
MARBLE MASON	ALL	BLD		36.71	36.96	1.5	1.5	2	9.40	8.02	0.00	0.80
MATERIAL TESTER I	ALL	ALL		33.56	0.00	1.5	1.5	2	8.24	16.39	0.00	0.80
MATERIALS TESTER II	ALL	ALL		33.56	0.00	1.5	1.5	2	8.24	16.39	0.00	0.80
MILLWRIGHT	ALL	BLD		38.52	42.37	1.5	1.5	2	9.40	15.00	0.00	0.60
OPERATING ENGINEER	ALL	BLD	1	45.80	49.80	2	2	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	BLD	2	45.10	49.80	2	2	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	BLD	3	42.65	49.80	2	2	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	BLD	4	40.65	49.80	2	2	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	BLD	5	49.55	49.80	2	2	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	BLD	6	48.80	49.80	2	2	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	BLD	7	45.80	49.80	2	2	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	HWY	1	45.65	49.65	1.5	1.5	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	HWY	2	45.10	49.65	1.5	1.5	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	HWY	3	43.80	49.65	1.5	1.5	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	HWY	4	42.35	49.65	1.5	1.5	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	HWY	5	40.90	49.65	1.5	1.5	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	HWY	6	48.65	49.65	1.5	1.5	2	18.80	13.45	2.35	1.30
OPERATING ENGINEER	ALL	HWY	7	46.65	49.65	1.5	1.5	2	18.80	13.45	2.35	1.30
PAINTER	ALL	ALL		38.55	40.55	1.5	1.5	1.5	10.30	8.46	0.00	1.35
PILEDRIIVER	ALL	BLD		39.94	44.33	1.5	1.5	2	9.75	13.05	0.00	0.60
PILEDRIIVER	ALL	HWY		43.74	45.49	1.5	1.5	2	10.65	14.00	0.00	0.49
PIPEFITTER	ALL	BLD		47.30	50.61	1.5	1.5	2	8.79	11.94	0.00	1.45
PLASTERER	ALL	BLD		34.78	38.26	1.5	1.5	2	10.85	15.84	0.00	0.50
PLUMBER	ALL	BLD		47.30	50.61	1.5	1.5	2	8.79	11.94	0.00	1.45
ROOFER	ALL	BLD		42.30	45.30	1.5	1.5	2	9.08	12.14	0.00	0.58
SHEETMETAL WORKER	ALL	BLD		41.24	44.54	1.5	1.5	2	6.90	18.36	0.00	0.39
SPRINKLER FITTER	ALL	BLD		37.12	39.87	1.5	1.5	2	8.42	8.50	0.00	0.35
STONE MASON	ALL	BLD		39.42	42.17	1.5	1.5	2	10.10	12.02	0.00	0.89

TERRAZZO FINISHER	ALL	BLD		33.88		1.5	1.5	2	9.40	5.86	0.00	0.75
TERRAZZO MASON	ALL	BLD		36.71	36.96	1.5	1.5	2	9.40	8.02	0.00	0.80
TILE LAYER	ALL	BLD		39.40	43.73	1.5	1.5	2	10.39	13.90	0.00	0.60
TILE MASON	ALL	BLD		36.71	36.96	1.5	1.5	2	9.40	8.02	0.00	0.80
TRUCK DRIVER	ALL	ALL	1	35.02	0.00	1.5	1.5	2	8.60	8.60	0.00	0.20
TRUCK DRIVER	ALL	ALL	2	35.17	0.00	1.5	1.5	2	8.60	8.60	0.00	0.20
TRUCK DRIVER	ALL	ALL	3	35.37	0.00	1.5	1.5	2	8.60	8.60	0.00	0.20
TRUCK DRIVER	ALL	ALL	4	35.48	0.00	1.5	1.5	2	8.60	8.60	0.00	0.20
TUCKPOINTER	ALL	BLD		39.42	42.17	1.5	1.5	2	10.10	12.02	0.00	0.89

### **Legend**

**M-F OT** Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.

**OSA** Overtime pay required for every hour worked on Saturdays

**OSH** Overtime pay required for every hour worked on Sundays and Holidays

**H/W** Health/Welfare benefit

Explanations WINNEBAGO COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

### **EXPLANATION OF CLASSES**

**ASBESTOS - GENERAL** - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date. **ASBESTOS - MECHANICAL** - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

#### CERAMIC TILE FINISHER, MARBLE FINISHER, TERRAZZO FINISHER

Assisting, helping or supporting the tile, marble and terrazzo mechanic by performing their historic and traditional work assignments required to complete the proper installation of the work covered by said crafts. The term "Ceramic" is used for naming the classification only and is in no way a limitation of the product handled. Ceramic takes into consideration most hard tiles.

#### COMMUNICATIONS TECHNICIAN

Installing, manufacturing, assembling and maintaining sound and intercom, protection alarm (security), fire alarm, master antenna television, closed circuit television, low voltage control for computers and/or door monitoring, school communications systems, telephones and servicing of nurse and emergency calls, and the installation and maintenance of transmit and receive antennas, transmitters, receivers, and associated apparatus which operates in conjunction with above systems. All work associated with these system installations will be included EXCEPT the installation of protective metallic conduit in new construction projects (excluding less than ten-foot, runs strictly for protection of cable) and 120 volt AC (or higher) power wiring and associated hardware.

#### LABORER, SKILLED - HIGHWAY

Individuals engaged in the following types of work, irrespective of the site of the work: asbestos abatement worker, handling of any materials with any foreign matter harmful to skin or clothing, track laborer, cement handlers, chloride handlers, the unloading and loading with steel workers and re-bars, concrete workers wet, tunnel helpers in free air, batch dumpers, mason tenders, kettle and tar men, tank cleaners, plastic installers, scaffold workers, motorized buggies or motorized unit used for wet concrete or handling of building materials, laborers with de-watering systems, sewer workers plus depth, rod and chainmen with technical engineers, rod and chainmen with land surveyors, rod and chainmen with surveyors, vibrator operators, cement silica, clay, fly ash, lime and plasters, handlers (bulk or bag), cofferdam workers plus depth, on concrete paving, placing, cutting and tying of reinforcing, deck hand, dredge hand, and shore laborers, bankmen on floating plant, grade checker, power tools, front end man on chip spreaders, cession workers plus depth, gunnite nozzle men, lead man on sewer work, welders, cutters, burners and torchmen, chainsaw operators, jackhammer and drill operators, layout man and/or drainage tile layer, steel form setter - street and highway, air tamping hammermen, signal man on crane, concrete saw operator, screedman on asphalt pavers, laborers tending masons with hot material or where foreign materials are used, mortar mixer operators, multiple concrete duct - leadsman, lumen, asphalt raker, curb asphalt machine operator, ready mix scalemen (permanent, portable or temporary plant), laborers handling masterplate or similar materials, laser beam operator, con-crete burning machine operator, coring machine operator, plaster ten-der, underpinning and shoring of buildings, pump men, manhole and catch basin, dirt and stone tamper, hose men on concrete pumps, haz-ardous waste worker, lead base paint

abatement worker, lining of pipe, refusing machine, assisting on direct boring machine, the work of lay-ing watermain, fire hydrants, all mechanical joints to watermain work, sewer worker, and tapping water service and forced lift station mechanical worker.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

#### OPERATING ENGINEERS - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver (over 27E cu. ft.): Concrete Paver (27 cu. ft. and under); Concrete Placer; Concrete Pump (Truck Mounted); Concrete Conveyor (Truck Mounted); Concrete Tower; Cranes, All; GCI and similar types (required two operators only); Cranes, Hammerhead; Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, one, two and three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment - excluding hose work and any sewer work); Locomotives, All; Lubrication Technician; Manipulators; Motor Patrol; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Raised and Blind Hole Drill; Rock Drill (self-propelled); Rock Drill - Truck Mounted; Roto Mill Grinder; Scoops - Tractor Drawn; Slipform Paver; Scrapers Prime Movers; Straddle Buggies; Tie Back Machine; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Bobcat (over 3/4 cu. yd.); Boilers; Brick Forklift; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Asphalt Spreader; Combination - Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators - (Rheostat Manual Controlled); Hydraulic Power Units (Pile Driving, Extracting, or Drilling - with a seat); Lowboys; Pumps, Over 3" (1 to 3 not to exceed total of 300 ft.); Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches; Bobcat (up to and including 3/4 cu. yd.).

Class 4. Elevator push button with automatic doors; Hoists, Inside; Oilers; Brick Forklift.

Class 5. Assistant Craft Foreman

Class 6. Mechanics; Welders.

Class 7. Gradall

#### OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Silo Tender; Asphalt Spreader; Autograder; ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Backhoe w/shear attachments; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower of all types; Creter Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Directional Boring Machine over 12"; Dredges; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Hydro Vac, Self Propelled, Truck Mounted (excluding hose work and any sewer work); Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; GCI Crane; Hydraulic Telescoping Form (Tunnel); Tie Back Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader with attached pusher; Tractor with Boom; Tractaire with Attachments; Traffic Barrier Conveyor Machine; Raised or Blind Hole Drills; Trenching Machine (over 12"); Truck Mounted Concrete Pump with Boom; Truck Mounted Concrete Conveyor; Work Boat (no license required - 90 h.p. or above); Underground Boring and/or Mining Machines; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw (large self-propelled - excluding walk-behinds and hand-held); Conveyor Muck Cars (Haglund or Similar Type); Drills, all; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro Blaster; All Locomotives, Dinky; Off-Road Hauling Units; Non-Self Loading Dump; Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops - Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.



Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper - Form - Motor Driven.

Class 4. Air Compressor - Small and Large; Asphalt Spreader, Backend Man; Bobcat (Skid Steer) all; Brick Forklift; Combination - Small Equipment Operator; Directional Boring Machine up to 12"; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro-Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Trencher 12" and under; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Oilers and Directional Boring Machine Locator.

Class 6. Field Mechanics and Field Welders

Class 7. Gradall and machines of like nature.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; TTeamsters Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable

Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

#### Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

#### LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

# AIA® Document A201™ – 2017

## General Conditions of the Contract for Construction

### for the following PROJECT:

Project of the Rockford Public Schools as identified in the Invitation for Bid

#### THE OWNER:

Board of Education  
Rockford School District No. 205  
(Paragraph deleted)  
Winnebago and Boone Counties, Illinois  
501 Seventh Street  
Rockford, Illinois 61104

#### THE ARCHITECT:

Design professional identified in the Invitation for Bid

The Invitation for Bid to which this document A201-2017 is attached is a publicly bid contract for a construction project(s) issued by the Rockford Public Schools. The Invitation for Bid, the selection and award of the bid and resulting contract all are subject to the terms and conditions of Illinois law, particularly the provisions of the Illinois School Code.

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#### ADDITIONS AND DELETIONS:

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

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

For guidance in modifying this document to include supplementary conditions, see AIA Document A503™, Guide for Supplementary Conditions.

Int.

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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, the Addendum, 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. Contract Documents also include the Invitation for Bid, Instructions and Supplementary Instructions to Bidders, sample forms, certifications required documents and other information required by the Owner as part of a Bid, and the Contractor's bid.

#### **§ 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 a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

#### **§ 1.1.3 The Work**

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

#### **§ 1.1.4 The Project**

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

#### **§ 1.1.5 The Drawings**

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

#### **§ 1.1.6 The Specifications**

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

#### **§ 1.1.7 Instruments of Service**

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

#### **§ 1.1.8 Initial Decision Maker**

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2 and certify termination under Section 14.2.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor.

### **§ 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; provided that Owner reserves the right to terminate the Contract in the event such revision(s) or construction of the Contract are not acceptable to Owner.

§ 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.

§ 1.2.4 In the event of inconsistencies between the drawings and specifications or within the other Contract Documents, or between the Contract Documents and applicable standards, codes and ordinances, and which inconsistencies are not addressed by Addenda issued by Owner prior to the bid opening, Contractor shall provide the better quality or greater quantity of Work or comply with the more stringent requirement, or both, according to the interpretation of the Architect with the consent of the Owner.

### § 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 Owner shall be deemed the authors and owners of the Instruments of Service, including the Drawings and Specifications, and will have and retain all common law, statutory, and other reserved rights in the 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 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.

### § 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 or by courier.

§ 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 may agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form subject to the conflict resolution and authenticity provisions set forth in section 12 of the Addendum.

#### **§ 1.8 Building Information Models Use and Reliance**

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### **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 where otherwise required by law or Owner's policies. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

**§ 2.1.2** The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights subject to the provisions of Illinois law as to liens on public property. 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** Intentionally Deleted.

**§ 2.2.2** Intentionally Deleted.

**§ 2.2.3** Intentionally Deleted.

**§ 2.2.4** Intentionally Deleted.

#### **§ 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, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

**§ 2.3.2** The Owner may retain a design professional lawfully licensed to practice architecture, engineering or other design discipline, or an entity lawfully practicing architecture, engineering, or other design discipline, in the jurisdiction where the Project is located. The design professional is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

**§ 2.3.3** If the employment of the Architect terminates, the Owner may employ a successor whose status under the Contract Documents shall be that of the Architect.

**§ 2.3.4** The Owner may furnish surveys, if required for performing the Work, 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.

**§ 2.3.5** 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.

§ 2.3.6 Unless otherwise provided in the Contract Documents, and to the extent Contractor does not have all or a portion of the Contract Documents, the Owner shall furnish to the Contractor one copy of that part or portion of the Contract Documents which Contractor does not have for purposes of making reproductions pursuant to Section 1.5.2.

#### § 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 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. Contractor shall be liable to Owner for the entire actual cost of correcting such default or neglect. Architect, pursuant to Section 9.5.1, shall withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the entire actual cost of correcting such deficiencies, including Owner's expenses, attorney's fees and costs and any compensation for the Architect's 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 upon Owner's demand.

### ARTICLE 3 CONTRACTOR

#### § 3.1 General

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

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

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

#### § 3.2 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 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect and Owner any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

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

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information, Contractor shall follow the requirements of the Supplemental Conditions section 6 as to change orders. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay costs and damages, including attorney's fees and costs, 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 and 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. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

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

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

### § 3.4 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 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 and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect or Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. Contractor further warrants to the Owner that materials and equipment installed under the Contract was installed in accordance with manufacturer requirements, or if none, in accordance with industry standards.



§ 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 all applicable sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when the Invitation for Bid is advertised, 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 Contractor shall secure and pay for the building permit as well as 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 submitted.

§ 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 responsibility for such Work and shall bear the costs, including any fines and penalties, attributable to correction, in addition to indemnifying and holding Owner harmless in the manner required in the Owner's General Conditions section 13.

### § 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 (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that 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 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 submitted in accordance with Owner's Supplementary Conditions section 6. 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 full time superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect 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 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.

#### § 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the bid and within the time required by the Contract Documents, shall submit for the Owner's and Architect's information 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.

§ 3.10.2 The Contractor, promptly after being awarded the bid and within the time required by the Contract Documents and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect'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 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 perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

#### § 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 Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

#### § 3.12 Shop Drawings, Product Data and Samples

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

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

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

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate 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 is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

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

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

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from 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 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 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 and the Architect 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.

**§ 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 Architect at the time and in the form specified by the Architect.

### **§ 3.13 Use of Site**

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.

### **§ 3.14 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 or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, 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 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 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 and Architect harmless to the extent and as required in the Contract Documents 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 or Architect. 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.

### **§ 3.18 Indemnification**

**§ 3.18.1** To the fullest extent permitted by law and as required in the Contract Documents (Owner's General Terms and Conditions section 13), the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the intentional or 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.

**§ 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**

### **§ 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** Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner.

### **§ 4.2 Administration of the Contract**

**§ 4.2.1** The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative, in addition to any Owner selected project manager, during construction until the date the Architect issues the final Certificate for Payment. The 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. The 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.

**§ 4.2.3** On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

### **§ 4.2.4 Communications**

The Owner and Contractor shall endeavor to communicate with each other through any Owner selected project manager about matters arising out of or related to the Contract and 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 Contractor 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 Separate Contractors shall be through the Owner or any Owner selected project manager. The Contract Documents may specify other communication protocols.

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

**§ 4.2.6** The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise

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such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, 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. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

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

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

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

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

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

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

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

## ARTICLE 5 SUBCONTRACTORS

### § 5.1 Definitions

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

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

## **§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work**

**§ 5.2.1** Unless otherwise stated in the Contract Documents, the Contractor, within the time required in the Contract Documents or, if none, as soon as practicable after award of the Contract, shall notify the Owner 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 Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

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

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

**§ 5.2.4** The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner 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 and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

## **§ 5.4 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, or for any other reason set forth in the Contract Documents including Owner's General Terms and Conditions, 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 provided that Owner does not assume responsibility for any unpaid amounts due Subcontractor to the extent Owner has paid Contractor for such amounts.

**§ 5.4.2** Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation may, in the sole discretion of the Owner, 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 with or without recourse to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity without recourse, the Owner shall not be responsible 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 and to Award Separate Contracts**

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. 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.

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

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

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces 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 and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify 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 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 Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs, including attorney's fees and costs, the Owner incurs that are payable to a Separate Contractor 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 a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 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 or Separate Contractor as provided in Section 10.2.5.

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



### **§ 6.3 Owner's Right to Clean Up**

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the Owner's cost between the contractor and the Separate Contractor.

## **ARTICLE 7 CHANGES IN THE WORK**

### **§ 7.1 General**

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

**§ 7.1.2** A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner 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.

**§ 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**

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

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

### **§ 7.3 Construction Change Directives**

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

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

**§ 7.3.3** If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on

*(Paragraphs deleted)*

the methods set forth in the Contract Documents, including the Owner's Supplementary Conditions section 6.

**§ 7.3.4** If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect 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 Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 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 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 Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

**§ 7.3.7** 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 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 Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

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

**§ 7.4 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 with a copy delivered to Owner upon issuance. 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 Architect 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 Architect 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 set forth or required by law. The term "School Day" when used in any Contract Documents including documents issued following the effective date of the Agreement shall mean student attendance days during the Owner's School Year. School Year is defined as that period in every calendar year from July 1 to the following June 30.

**§ 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.

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§ 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 or Architect, of an employee of either, or of a Separate Contractor; (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 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 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 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 may, in the sole discretion of the Owner, 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 Architect 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 Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by 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 The Contractor, within the time required in the Contract Documents, shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values 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 or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage provided for in the Contract Documents.

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

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

§ 9.3.2 Payments may 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 and in accordance with the Contract

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Documents, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing and pursuant to the requirements of the Owner's Supplementary Conditions section 21. 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 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** The Architect will, within the time provided in the Contract Documents after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor 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 Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

**§ 9.4.2** The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, 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 entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and 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 Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or 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;
- .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 failure to carry out the Work in accordance with the Contract Documents.

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§ 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 upon Contractor's Application for Payment submitted in due form for which Architect issues a Certificate for Payment and subject to the payment procedures set forth in the Contract Documents.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or 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 Contractor shall reflect such payment on its next Application for Payment.

#### § 9.6 Progress Payments

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

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

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

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

Intentionally Deleted.

## **§ 9.8 Substantial Completion**

**§ 9.8.1** Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

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

**§ 9.8.3** Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

**§ 9.8.4** When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; 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 Contractor may request in accordance with the provisions of the Contract Documents, submit a request for reduction of retainage and Owner may make payment of excess 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, all consistent with the provisions 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 shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

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

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

## **§ 9.10 Final Completion and Final Payment**

**§ 9.10.1** Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the

Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

**§ 9.10.2** Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (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 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 Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, 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 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.

### **§ 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; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.



§ 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.

§ 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 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. 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 or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 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 and accepted by the Owner and Architect.

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

#### § 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, 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 and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances including, without limitation, the duties and responsibilities set forth in the Asbestos Notification. 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 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 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 and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor 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, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work 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 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 in Owner's discretion.

### **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, required 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 with the minimum rating required in the Contract Documents. The Owner, 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 performance bond and labor and materials payment bond in the amount of 100% of Contractor's obligations under its awarded bid, and subject to such terms and conditions and 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. Contractor shall deliver to Owner prior to commencing work all required bonds.

**§ 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 to the Owner 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 or, in the sole discretion of the Owner, purchase replacement coverage at Contractor's expense. The expense of Owner purchased replacement insurance shall be deducted from the next following Application for Payment submitted by Contractor or, if insufficient, from all remaining Applications

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for Payment until such expense is fully paid to Owner; further provided, that in the event the balance of payments under the Contract is insufficient to reimburse the Owner for the replacement insurance, Contractor shall pay the balance of such replacement insurance cost immediately upon Owner's demand. In the event Owner incurs legal expense and cost to collect the cost of replacement insurance from Contractor, Contractor shall also pay to Owner attorney's fees and costs of collection. 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 property insurance written on a builder's risk "all risk" or equivalent policy form in the amount of the initial Contract Sum plus subsequent Contract modifications equaling the total value of the entire project. 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 and shall maintain such insurance until final payment, as described herein, has been made. Interests of the Owner, Contractor, Subcontractors and Sub-subcontractors shall be included.

**§ 11.2.2 Failure to Purchase Required Property Insurance.** Intentionally Deleted.

**§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance.** Intentionally Deleted.

#### **§ 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 Architect and Architect's consultants; and (3) 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 Architect, Architect's consultants, 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 but only to the extent of such coverage.

#### **§ 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 (Purchased Insurance). In the event, and only in the event such insurance is purchased, the Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused to the extent and only to the extent such loss is covered by the Purchased Insurance. Owner does not waive rights of action for losses in excess of the Purchased Insurance coverage.

#### **§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 requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the 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

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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 Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

**§ 12.1.2** If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate in the discretion of the Owner. 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 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 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 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.

**§ 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 or Separate 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 applicable rules of procedure shall be contained in the arbitration agreement.

### § 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, 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 Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner, unless otherwise provided in the Contract Documents, shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner, unless otherwise provided in the Contract Documents, 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 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 Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or

approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, 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 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 Architect.

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

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

§ 13.5 Interest Intentionally Deleted.

#### ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

##### § 14.1 Termination by the Contractor

§ 14.1.1 The Contractor, unless otherwise provided in the Contract Documents, 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 Intentionally Deleted.
- .4 Intentionally Deleted.

§ 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.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon thirty days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work completed.

§ 14.1.4 Intentionally Deleted.

##### § 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract as provided in the Contract Documents and 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 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;

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- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

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

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner including the transactional cost of obtaining substitute contractor(s) and reasonable attorney's fees and costs, 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 immediately upon Owner's demand. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

#### § 14.3 Suspension by the Owner for Convenience

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

§ 14.3.2 The Contract Sum and Contract Time may be adjusted in the Owner's sole discretion, for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum may include profit. No adjustment shall be made to the extent

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

#### § 14.4 Termination by the Owner for Convenience

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

§ 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
- .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 completed.

### 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 costs in accordance with the Contract and 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.

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### **§ 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 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.

**§ 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.

### **§ 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 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 request voluntary mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

**§ 15.2.6.1** Intentionally Deleted.

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

**§ 15.2.8** Intentionally Deleted.

### **§ 15.3 Mediation**

**§ 15.3.1** Intentionally Deleted.

**§ 15.3.2** The parties may by their independent written agreement, on a case by case basis, agree to submit any one or more claims, disputes, or other matters in controversy arising out of or related to the Contract to mediation. Mediation if agreed to by both parties 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; provided, neither party to the Contract is required or mandated to submit to mediation. No response to a written mediation request within 21 days of receipt shall mean the request was rejected. Mediation is not a prerequisite to voluntary arbitration or other form of dispute resolution. In the event both parties agree to mediation, a mediation 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.



§ 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, request in writing that the other party file for voluntary binding dispute resolution. Neither party to the Contract shall be required to participate in arbitration.

§ 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 The parties to the Contract may but shall not be required to submit their claims and disputes 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. Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A request 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; provided, the responding party is not required to submit to arbitration and may obtain dismissal of any arbitration on request unless such party previously agreed to arbitration in writing. Failure to respond to a written request to submit to arbitration within 21 days of receipt shall mean arbitration is rejected. The written arbitration request must fully and completely state all Claims or disputes known to the requesting party and reference all portions of the Contract applicable to the claim or dispute and all facts and circumstances substantiating the claim or dispute. If the responding party agrees to arbitration, the claim or dispute shall be limited to claims and issues stated in the written request to arbitrate.

§ 15.4.1.1 A request 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 more than one year following the date of Substantial Completion or one year following discovery of the Claim whichever is greater.

§ 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.

#### § 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.

#### § 15.4.4 Submission to Court

The parties to the Contract agree, absent the express written agreement of both parties to submit a matter to mediation or arbitration, the means of dispute resolution shall be submission to a court of competent jurisdiction. The Contract shall be interpreted in accordance with the laws of the State of Illinois and venue for all purposes shall lie in Winnebago County, Illinois.

FORM FOR REFERENCE ONLY

ADDENDUM

**ADDENDUM TO A CERTAIN CONTRACT FOR CONSTRUCTION BY AND BETWEEN \_\_\_\_\_  
AND THE BOARD OF EDUCATION OF ROCKFORD SCHOOL DISTRICT No. 205,  
WINNEBAGO AND BOONE COUNTIES, ILLINOIS**

**THIS ADDENDUM IS ATTACHED TO AND MADE A PART OF SUCH CONTRACT**

This Addendum is attached to and made a part of the contract for construction (Agreement) dated \_\_\_\_\_ between \_\_\_\_\_ (Contractor) and the Board of Education of Rockford School District No. 205, Winnebago and Boone Counties, Illinois (District) (\_\_\_\_\_ Project (IFB # \_\_\_\_ - \_\_\_\_)).

**1. Conflict.**

In the event of conflict between the terms of the Agreement and this Addendum, the terms of this Addendum shall govern.

**2. Certifications.**

Upon or prior to execution of this Addendum, Contractor shall deliver to the District the following fully executed Certifications in the form as advertised by the District or as otherwise required by the District:

1. Certificate regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion;
2. Bid Rigging Certification;
3. Certificate Regarding Lobbying;
4. Certification regarding the Office of Foreign Asset Control;
5. Certified Cleared Employee List;
6. Vendor Conflict of Interest Disclosure Form;
7. Asbestos Notification;
8. Bidder's Certifications;
9. Contractor's Qualification Statement;
10. IRS Form W-9;
11. Certificate of Liability Insurance Acor form 25;
12. Performance Bond;
13. Labor and Materials Payment Bond;
14. Minority and Women Owned Business Concern Representation

By execution of this Addendum, Contractor represents and warrants that the certifications set forth in certificates 1 through 14 shall remain true at all times during the existence of this Addendum and the Agreement and shall immediately notify the District in the event Contractor becomes subject to debarment, suspension, ineligibility, or voluntarily excludes itself from federal programs; or, becomes barred from participation in public contracts due to a violation of the bid-rigging or bid-rotating statutes of the State of Illinois, or in the event an employee of Contractor becomes ineligible to be present on District grounds. Contractor further certifies by execution of this Agreement that it shall comply, if the Project is funded in whole or in part with federal grant funds, with the **Enhancement of Whistleblower Protection for Contractor and Grantee Employees** applicable to Contractors under federal grant funded programs as specified in 41 U.S.C. 4712 (Public Law 114-261, enacted December 14, 2016). Contractor shall comply with the following requirements of such Act if providing services funded by federal grants:

1. Inform its employees working on the Projects they are subject to the Whistleblower rights and remedies of the pilot program;
2. Inform its employees in writing of employee whistleblower protections under 41 U.S.C. §4712 in the predominantly native language of the workforce; and
3. Include such requirements in and agreements made with any subcontractor.

Whistleblower rights include that an employee of a Consortium may not be discharged, demoted, or otherwise discriminated against as a reprisal for "Whistleblowing"; and such rights cannot be waived by agreement, policy, form or condition of employment. Whistleblowing is defined as making a disclosure to an authorized person or entity that the employee reasonably believes is evidence of:

1. Gross mismanagement of a federal contract or grant;
2. A gross waste of federal funds;
3. An abuse of authority relating to a federal contract or grant;

## FORM FOR REFERENCE ONLY

4. A substantial and specific danger to public health or safety; or
5. A violation of law, rule, or regulation related to a federal contract or grant (including competition for, or negotiation of, a contract or grant).

### 3. **Conflict of Interest.**

Contractor and its officers, employees and agents shall at all times during the duration of this Addendum and the Agreement refrain from violation of conflict of interest statutes in the state of Illinois.

### 4. **Employment Costs and Compliance with Laws.**

Contractor shall keep and perform and be solely responsible for all the duties and responsibilities of an employer in the state of Illinois including without limitation providing and paying for Unemployment Compensation coverage and Workers Compensation coverage for its employees. Contractor herewith stipulates and agrees that all persons acting by and through Contractor are employees of Contractor or its consultants, and not the District, and Contractor shall keep and hold harmless the District from and against any and all claims relating to employment matters of Contractor employees. Contractor herewith expressly stipulates and agrees that it will adhere to and abide by all Federal, State and local laws, ordinances, regulations and rules applicable to its performance under the Addendum and Agreement. Contractor is an "independent contractor" and the Agreement and this Addendum shall not create nor infer an employer/employee relationship between the District and Contractor. Contractor shall bear all risk of loss and remain liable for any Federal or State Income, Social Security, Unemployment Compensation and Workers Compensation taxes, contributions or deductions and shall indemnify the District, its Board members, agents, officers, employees, successors and assigns for any liability including interest and penalties and attorney's fees, if any, assessed against the District as a result of any violation of this provision.

### 5. **Certifications of Hours Worked.**

In all circumstances where Contractor seeks payment based upon an hourly rate for itself or its consultants, time cards or time records of such person or persons for whom such hourly rate compensation is requested shall be kept and maintained by Contractor. At any time or times, at the election of the District, the District may inspect and audit all time records kept by Contractor. Each submission of requests for payment of hourly rate amounts shall be accompanied by a certification under oath that the payment requested is for time actually worked which has been verified by Contractor.

### 6. **Drugs, Alcohol and Smoking.**

The District maintains a drug-free and alcohol-free workplace. Contractor shall prohibit the use of drugs and alcohol on District premises at all times. The District also maintains all its properties as smoke free, tobacco free environments. Smoking (including electronic cigarettes and e-vapor) and tobacco use (including chewing tobacco and snuff) is not permitted on any District property; Contractor shall require all its employees, agents and representatives and its consultants to refrain from smoking and tobacco use on District property.

**6.01** No Contractor employee, agent, representative, consultant and consultant's employees, agents and representatives may use, possess, distribute, deliver, or be under the influence of a drug, or use or be under the influence of alcohol, while performing work on a public works project. An employee is considered to be under the influence of alcohol for purposes of this Act (820 ILCS 265) if the alcohol concentration in his or her blood or breath at the time alleged as shown by analysis of the employee's blood or breath is at or above 0.02.

**6.02** Contractor acknowledges and agrees that the provisions and requirements established by the Substance Abuse Prevention on Public Works Projects Act has been complied with and Contractor has in place all requirements for testing of its employees suspected of or challenged to be tested by the District as provided under the Act (820 ILCS 265).

### 7. **Contract Payments.**

All contract payments shall be processed in the manner specified in the Agreement or the IFB. The Board of Education regular meetings generally occur on the second and fourth Tuesdays of each month (except one meeting in July and December) as specified by the Board Calendar. The Board Calendar may be accessed at the District web site [www.rps205.com](http://www.rps205.com). Payment applications by the Contractor must be received in the District Finance Department not less than 10 business days prior to a scheduled Board meeting for the approved application for payment to be considered at that Board meeting.

The Board of Education will comply with the provisions of the Local Government Prompt Payment Act, 50 ILCS 515/1.

### 8. **Miscellaneous.**

**8.1** To the fullest extent permitted by applicable law, Contractor and its employees and consultants shall and do agree to indemnify and hold harmless the District, and its respective Board members, officers, directors, representatives and employees as specified in the conditions of the bid set forth in the IFB.

## FORM FOR REFERENCE ONLY

**8.2** Notwithstanding any other provision in any document, the District shall not, in any manner, be deemed or intended to have waived any claim by making a payment of any amount.

**8.3** The Certificate of Insurance and all insurance policies required to be obtained by Contractor shall provide that coverages afforded under the policies will not be cancelled, reduced or allowed to expire without at least thirty (30) days prior written notice to the District.

**8.4** Under no circumstances shall the District be deemed to have waived any of the insurance requirements of this Agreement by any action or omission.

**8.5** Subject to the waiver of subrogation as may otherwise apply by agreement, nothing contained in the insurance requirements of the Agreement is to be construed as limiting the liability of Contractor or any of its insurance carriers. District does not represent that the coverages or limits of insurance specified is sufficient or adequate to protect the District or Contractor's interest or liabilities but are mere minimums. The obligation of Contractor to purchase insurance shall not limit its obligations to the District in the event the District should suffer an injury or loss in excess of the amount recoverable through insurance, or any loss or portion of loss which is not covered by insurance.

**8.6** Contractor shall notify District, in writing, of any actual or potential claim for personal injury or property damage relating to the Project and of any occurrence which might give rise to such claim, promptly upon receiving first knowledge of same.

**8.7** Contractor agrees to fully comply with the requirements of the Illinois Human Rights Act, 775 ILCS 5/1-101 et. seq. including but not limited to the provisions regarding sexual harassment policies and procedures under Section 2-105 of said Act. Contractor further agrees to comply with all federal Equal Employment Opportunity laws including, without limitation, the American's with Disabilities Act and the rules and regulations promulgated thereunder. Pursuant to the requirements of the regulations of the Illinois Department of Human Rights (Department), Title 44, Part 750 of the Illinois Administrative Code and to the extent applicable Contractor will comply with Illinois human rights laws. In the event of non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the rules and regulations of the Illinois Department of Human Rights, this Agreement may be cancelled or voided in whole or in part, and Contractor acknowledges that it may be subject to further sanctions or penalties imposed by the Illinois Human Rights Commission, as provided for in the Illinois Human Rights Act, and to such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulations. During the performance of this Agreement, Contractor agrees:

**A.** It will not discriminate against any employee or applicant for employment because of race, color, religion, creed, sex, marital status, national origin or ancestry, age, citizenship, physical or mental handicap or disability, military status, or an unfavorable discharge from military service or arrest record status; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

**B.** If it hires additional employees in order to perform this Agreement it will determine the availability (in accordance with applicable agency rules) of minorities and women in the areas(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.

**C.** In all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin, ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military service.

**D.** It will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining agreement or understanding, a notice advising such labor organization or representative of Contractor's obligation under the Illinois Human Rights Act and the Rules of the Department. If any such labor organization or representative fails or refuses to cooperate with Contractor in its efforts to comply with such Act and Rules, Contractor will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

**E.** Contractor will submit reports as required by the District's rules, furnish all relevant information as may, from time to time, be requested by the Department or the District, and in all respects comply with the Illinois Human Rights Act and the Department rules.

**F.** Contractor will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and Department rules.

**G.** Contractor will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the Agreement obligations are undertaken or assumed. In the same manner as with other provisions of the Agreement, Contractor will be liable for compliance with applicable provisions of this clause by its consultants or contractors; and further it will promptly notify the contracting agency and the Department in the event any consultant or contractor fails or refuses to comply therewith. In addition, Contractor will not utilize any consultant or contractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

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**8.8 Weapons.** Neither Contractor nor any of its employees, officers, agents or representatives shall be in possession of any firearm or weapon (as defined by the District's designated representative) while on District premises, including on the person or within any vehicle parked on or adjacent to any District property. Violation of this section may result in immediate removal from District premises and referral to local law enforcement.

### **9. Federal Funds Contract.**

The Agreement provides for the construction of certain improvements on behalf of the District identified as the Projects. If the Projects are funded in whole or in part by federal grant funds the Projects are subject to certain rules and regulations as may be contained in the regulations of the funding agency, in the federal common rule as set forth in 45 CFR Part 92, and in the grant award. Contractor agrees to abide by all such rules and regulations as part of its services.

### **10. Representation of Authority.**

Contractor herewith covenants, represents and warrants that the person executing this Addendum and the Agreement and any and all amendments hereto and thereof, as and if such may occur, are fully empowered to execute this Addendum, the Agreement and any amendments thereto in such fashion as to fully and completely bind Contractor to these agreements and undertakings. The signature on this Addendum and the Agreement further serves to assure the District that any and all action necessary by law, and under the terms of Contractor's by-laws or operating agreement, and pursuant to the policies of Contractor have been taken prior to execution of this document on behalf of Contractor. The signatures on the Agreement and this Addendum are a representation that the Contractor is a corporation in good standing in the state of Illinois. This representation, covenant and warranty are made by Contractor with the intent that the District fully rely hereon and as an inducement to the District to execute this Addendum and the Agreement.

### **11. Entire Agreement.**

The Agreement together with all its Exhibits and this Addendum shall constitute the complete understanding between the parties and no other or further agreement shall be or constitute an amendment to or modification of this Agreement absent the same being reduced to writing and executed by both parties hereto. This Agreement shall be interpreted and enforced under the laws of the State of Illinois and jurisdiction and venue for all purposes shall lie in Winnebago County, Illinois.

### **12. Use of Digital Exhibits.**

The final contract signed by the District and the Contractor may have digital exhibits attached. In the event of a discrepancy or conflict between digital exhibits and the published specifications and drawings, the specifications and drawings as published and advertised by the District under IFB # \_\_\_ - \_\_\_ and any issued Addenda thereto shall control.

### **13. Program/Project Management.**

The District has ongoing construction projects both independent of and included within its Facility Master Plan. The District may, in its discretion, obtain the services of a third-party Program Manager or self-manage its construction projects. In the event a third-party program or project manager is engaged by the District; the third-party program or project manager will be identified by the District in the Agreement. District self-managed projects will be identified by the District in the Agreement and its designated project manager disclosed. The term Program Manager, as contained within the General Conditions document attached as an exhibit to the Agreement shall include both engaged third-party program or project managers and District employee project managers. The District reserves the right to change its project management at any time in its discretion.

**DISTRICT:**

**CONTRACTOR:**

**BOARD OF EDUCATION  
ROCKFORD SCHOOL DISTRICT No. 205  
WINNEBAGO AND BOONE COUNTIES, ILLINOIS**

\_\_\_\_\_

**By:** \_\_\_\_\_  
**ITS PRESIDENT**

**By:** \_\_\_\_\_  
**ITS PRESIDENT**

**ATTEST:** \_\_\_\_\_  
**ITS SECRETARY**

**ATTEST:** \_\_\_\_\_  
**ITS SECRETARY**

# ROCKFORD PUBLIC SCHOOLS

## REQUIRED CONSTRUCTION BID FORMS CHECK LIST

**Listed below are the REQUIRED forms all bidders are REQUIRED to submit with sealed bids on or before the bid due date and time. Failure to submit ALL required forms WILL result in bidder being deemed non-responsive.**

Required Forms	Yes	Comments
Bid Security Bond	<input type="checkbox"/>	5% of Base Bid
Bid Offer Form	<input type="checkbox"/>	
Bid Rigging Certification	<input type="checkbox"/>	
Minority and Women Owned Business Concern Representation	<input type="checkbox"/>	
Certificate Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion	<input type="checkbox"/>	
Certificate Regarding Lobbying	<input type="checkbox"/>	
OFAC Compliance	<input type="checkbox"/>	
Vendor Conflict of Interest Disclosure Form	<input type="checkbox"/>	
Certified Cleared Employee List	<input type="checkbox"/>	Complete, sign, and notarize the form. If you are uncertain of which employees will be working on the project, note this information on the form that the employee information will be forth coming BEFORE you start on the project, if awarded the contract.
Asbestos Notification	<input type="checkbox"/>	
AIA Document A305-1986 Contractor's Qualification Statement	<input type="checkbox"/>	
Bidders Certifications	<input type="checkbox"/>	
Vendor Entry Form/W-9	<input type="checkbox"/>	

**Listed below are REQUIRED FORMS/DOCUMENTS that must be submitted prior to starting work, if awarded the contract. Failure to submit forms below may result in project start delay.**

<input type="checkbox"/> Certificate of Liability Insurance	<input type="checkbox"/> Performance Bond (100% of contract)
<input type="checkbox"/> AIA Document A101-2007 Standard Form of Agreement between Owner and Contractor (as revised by owner)	<input type="checkbox"/> Labor and Material Payment Bond (100% of contract)



## BID OFFER FORM

Bid # 20-01 Auburn H.S. and Guilford H.S. Exterior Lighting and Security Cameras Project.

BID SUBMITTED BY: \_\_\_\_\_

Date \_\_\_\_\_

The undersigned, having become familiar with the local conditions affecting cost of work and with the Bidding Documents, including the advertisement of the Invitation for Bid, the Instructions and Supplementary Instructions to Bidders, this Bid Offer Form, the General and Supplementary Conditions, the Drawings and Specifications, and Addenda issued thereto, as prepared and issued by the Board of Education of Rockford School District No. 205, Winnebago and Boone Counties, Illinois hereby agrees to furnish all labor, material and equipment necessary to do the Work required for the project and IFB identified above, to complete the camera wiring, area lighting, and electrical power wiring at East High School for the amount shown below:

**Note: Contractor to write "No Bid" in the dollar amount section for any line items not bid.**

**BASE BID:**

TOTAL: \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_)

**ADDENDA RECEIVED**

The undersigned acknowledges receipt of Addenda \_\_\_\_\_ to \_\_\_\_\_ inclusive.

**PRE-BID MEETING ATTENDANCE**

A Bidder representative attended the Pre-Bid Meeting? YES \_\_\_\_\_ OR No \_\_\_\_\_.

**SITE VISIT**

Existing premises and conditions were checked by an on-site inspection on \_\_\_\_\_.

**CONTRACTOR'S QUALIFICATION STATEMENT**

A fully completed AIA Document A305-1986 Contractor's Qualification Statement is **required** AND MUST BE SUBMITTED WITH THE BID. Include at least three references from projects completed in the past five (5) years with phone number, date of completion, description of work, and project architect (or engineer) contact name with phone number. Projects must be similar to the scope of this bid, and the bidder must have acted in the capacity of prime or general contractor.

Contractor has adequate equipment to perform the work properly and expeditiously: \_\_\_\_ Yes \_\_\_\_ No.

**COMMENCEMENT AND COMPLETION OF CONTRACT**

The undersigned agrees, if awarded the Contract, to commence the contract work within five (5) days of receipt of Order to Proceed or if required, upon execution of a formal written contract and to complete said Work within the specified completion time. The undersigned further agrees to execute the Contract, furnish satisfactory performance and payment bond as well as insurance coverage, as specified in strict accordance with the Contract Documents.

Date of Commencement of Construction: August 15<sup>th</sup>, 2019

Date of Substantial Completion: November 7<sup>th</sup>, 2019

Date of Final Completion: November 28<sup>th</sup>, 2019

## BID OFFER FORM

BIDDER: \_\_\_\_\_  
(Corporation) (Partnership) (Individual) Circle One

Address \_\_\_\_\_

Street

City

State

Zip Code

Phone No.

Email address

BIDDER FEIN/SSN NO. \_\_\_\_\_

By: \_\_\_\_\_  
Bidder or Authorized Agent Signature Print name

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

Subscribed and sworn to before be this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

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

### **BID DEPOSIT CERTIFICATION**

A Bid Deposit is required in the amount of 5% of the total Bid including Alternate Bids. This Bid Deposit is to be a Bid Bond, Bank Draft or Certified Check made payable to the "Rockford School District No. 205", as a guarantee that if awarded all or part of the Bid, the firm will enter into a contract to perform with the Board of Education.

Amount of Total Bid \$ \_\_\_\_\_

Amount of Bank draft or Certified Check \$ \_\_\_\_\_

BIDDER: \_\_\_\_\_

\_\_\_\_\_  
Signature of Bidder or Authorized Agent

## BID OFFER FORM

### SUBCONTRACTOR LISTING

1. Pursuant to bidding requirements for the Work:

The Bidder, for portions of the Work equaling or exceeding ½ of 1% of the total Contract Sum, proposes to use the following Subcontractors. The Bidder proposes to perform all other portions of the Work with its own forces. The District reserves the right to qualify all Subcontractors. COPY AND ATTACH ADDITIONAL SHEETS AS NECESSARY.

2. Portion of the Work Subcontractor Name and Address

_____	_____
	_____
	_____
_____	_____
	_____
	_____
_____	_____
	_____
	_____
_____	_____
	_____
	_____
_____	_____
	_____
	_____

Bidder:

\_\_\_\_\_

By: \_\_\_\_\_  
Bidder or Authorized Agent Signature

-END OF BID OFFER FORM-

**ROCKFORD PUBLIC SHOOOLS**  
**BID-RIGGING CERTIFICATION**

I, \_\_\_\_\_, a duly authorized agent of  
(Agent)

\_\_\_\_\_, do hereby certify that neither  
(Contractor)

\_\_\_\_\_ nor any individual presently  
(Contractor)

affiliated with \_\_\_\_\_ has been barred from bidding on a  
(Contractor)

public contract as a result of a violation of either Section 33E-3 (bid-rigging) or Section 33E-4 (bid rotating) of the Illinois Criminal Code, contained in Chapter 750, Article 5 of the Illinois Compiled Statutes.

\_\_\_\_\_  
Authorized Agent

\_\_\_\_\_  
Contractor

# ROCKFORD PUBLIC SCHOOLS

## MINORITY, WOMEN and DISABLED-OWNED BUSINESS CONCERN REPRESENTATION

**Minority-Owned Business:** a minority-owned business concern means a business concern that: (1) is at least 51 percent unconditionally owned by one or more individuals who are considered to be a member of a minority group, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more members of a minority group; and (2) has its management and daily business controlled and operated by one or more such individuals. Individuals who certify that they are members of minority groups (African Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Asian-Indian Americans, and other minorities) are to be considered minority-owned enterprises.

**Women-Owned Business:** a business that is at least 51 percent owned by a woman or women who also control and operate it.

**Disabled Owned Business:** a business that is at least 51 percent owned by a person or persons with severe physical or mental disabilities which substantially limits one or more of the person's major life activities and which person or persons control and operate such business.

"Control" in this referenced context means exercising the power to make policy decisions. "Operate" means being actively involved in the day-to-day management of the business.

The District shall rely on written representations of concerns regarding their status as minority/women/disabled-owned businesses. Offeror agrees to submit information regarding the minority ownership of its subcontractors on request of District.

**COMPLETE THE SECTION BELOW AND RETURN THIS FORM WITH BID. FAILURE TO DO SO MAY RENDER THE OFFEROR'S BID UNACCEPTABLE.**

A. Representation. The offeror represents that it is ( ), is not ( ) a minority-owned business concern.

B. Representation. The offeror represents that it is ( ), is not ( ) a women-owned business concern.

C. Representation. The offeror represents that it is ( ), is not ( ) a disabled-owned business concern.

### Please Check Appropriate Box/Boxes

☐ African American (AFRAM)

☐ Caucasian (CAUC)

☐ Native American (NAAM)

☐ Hispanic American (HISP)

☐ Asian-Pacific American (ASIAP)

☐ Asian Indian (ASIAI) American

☐ Other, please identify:

☐ Woman Owned (W)

☐ Disabled Owned (D)

\_\_\_\_\_

The offeror has ☐/ has not ☐ used the following procedures in searching for and obtaining suppliers and subcontractors:

- Place Minority-Owned Businesses on solicitation lists.
- Ensure that Minority-Owned are solicited whenever they are potential sources.
- Consider contracting with consortia of Minority-Owned Businesses when an intended contract is too large for any one such firm to handle on its own or, if economically feasible, divide larger requirements into smaller transactions for which such organizations might compete.
- Make information on contracting opportunities available and establish delivery schedules that encourage participation by Minority-Owned Businesses.
- Use the services and assistance of the SBA and Department of Commerce Minority Business Development Agency, as appropriate.

Company Name \_\_\_\_\_ Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone # \_\_\_\_\_ Fax # \_\_\_\_\_ FEIN # \_\_\_\_\_

Signature of Company Official \_\_\_\_\_ Title \_\_\_\_\_

Date \_\_\_\_\_

**ILLINOIS STATE BOARD OF EDUCATION**

100 North First Street  
Springfield, IL 62777-0001

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION  
LOWER TIER COVERED TRANSACTIONS**

This certification is required by the regulations implementing Executive Orders 12549 and 12689, Debarment and Suspension, 2 CFR 417 Subpart C Responsibilities of Participants Regarding Transactions. The regulations were published in the May 25, 2010 Federal Register (pages 29183-29189). Copies of the regulations may be obtained by contacting the Illinois State Board of Education.

**BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS BELOW.**

**CERTIFICATION**

The prospective lower tier participant certifies, by submission of this Certification, that:

- (1) Neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency;
- (2) It will provide immediate written notice to whom this Certification is submitted if at any time the prospective lower tier participant learns its certification was erroneous when submitted or has become erroneous by reason of changed circumstances;
- (3) It shall not knowingly enter any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated;
- (4) It will include the clause titled Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion—Lower Tier Covered Transactions, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions;
- (5) The certifications herein are a material representation of fact upon which reliance was placed when this transaction was entered into; and
- (6) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this Certification.

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*Organization Name*

---

*PR/Award Number or Project Name*

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*Name of Authorized Representative*

---

*Title*

---

*Original Signature of Authorized Representative*

---

*Date*

**Instructions for Certification**

1. By signing and submitting this Certification, the prospective lower tier participant is providing the certifications set out herein.
  2. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal government, the department or agency with which this transaction originated may pursue all available remedies, including suspension and/or debarment.
  3. Except for transactions authorized under paragraph 3 above, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal government, the department or agency with which this transaction originated may pursue all available remedies, including suspension and/or debarment.
  4. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used herein, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549 and Executive Order 12689. You may contact the person to which this Certification is submitted for assistance in obtaining a copy of those regulations.
  5. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the "GSA Excluded Parties List System" at <http://epls.arinet.gov/>.
  6. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required herein. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
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**ILLINOIS STATE BOARD OF EDUCATION**  
100 North First Street  
Springfield, IL 62777-0001

**CERTIFICATE REGARDING LOBBYING**

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit ISBE 85-37, "Disclosure of Lobbying Activities," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

---

*Organization Name*

---

*PR/Award Number or Project Name*

---

*Name of Authorized Representative*

---

*Title*

---

*Original Signature of Authorized Representative*

---

*Date*

---

## OFAC Compliance

The undersigned hereby certifies and represents that products and/or services provided under any contract with the Rockford Public Schools resulting from this bid shall be in compliance with economic or trade sanctions or restrictions implemented by the United States government such as those administered by the Office of Foreign Assets Control (“OFAC”) of the U.S. Department of the Treasury and shall not utilize or engage, for performance of any activities related to the products and/or services, any persons or entities that, (i) appear on OFAC's Specially Designated Nationals and Blocked Persons List (“SDN List”), as that list may be updated from time to time or any other similar list maintained by OFAC; (ii) are owned or controlled by any person or entities appearing on OFAC's SDN List, as that list may be updated from time to time or any other similar list maintained by OFAC; or (iii) are located in any country subject to U.S. economic or trade sanctions, such as those administered by OFAC.

---

Organization Name

---

Bid Number

---

Name of Authorized Representative

---

Title

---

Original Signature of Authorized Representative

---

Date

# ROCKFORD PUBLIC SCHOOLS

## VENDOR CONFLICT OF INTEREST DISCLOSURE FORM

### DISCLOSURE STATEMENT:

All businesses ("Vendors" or "Vendor" or "Vendor's") that wish to conduct business with the Rockford Public Schools "RPS" must complete this form. Please note that all contracts with RPS are subject to RPS Code of Ethics which prohibits RPS employees and Board of Education members from having certain relationships with persons or entities conducting (or proposing to conduct) business with RPS and which limits the acceptance of gifts from Vendors. The entire Board Member Conflict of Interest Board Policy 2.100 and Board Policy 5.120 may be viewed at <http://www2.rps205.com/District/BOE/Pages/GP-200.aspx>. The Code and its definitions are incorporated by reference into this Disclosure Form. If a Vendor has a disclosable relationship, the Vendor should assume the relationship may pose a conflict of interest until notified to the contrary in writing by a RPS administrative staff member authorized to confirm that a determination has been made that a conflict does not exist. A principle of the Code of Ethics is to ensure that relationships do not influence any official decision or judgment of RPS employees or Board of Education members. Accordingly, disclosure also should be made for any person connected with Vendor (e.g., officer, director, partner, shareholder, employee,) that is likely to: (i) materially contribute to Vendor's preparation, drafting, or presentation of a proposal or bid for services and/or supplies, (ii) materially contribute to Vendor's negotiation of a contract with RPS, or (iii) perform material services under a contract with RPS. Below, these persons are referred to as "Disclosable Persons."

### CERTIFICATION:

I hereby certify that, except as disclosed below, to Vendor's knowledge, there is no conflict of interest involving the Vendor named below that would violate the RPS Code of Ethics, including that: (a) after inquiry, neither Vendor nor any Disclosable Person is involved or engaged in any private business venture or enterprise, directly or indirectly, with any RPS employee or Board of Education member or his or her family member; (b) no RPS employee or Board member or his or her family member owns or has a material personal financial interest (directly or indirectly) in Vendor or is engaged in a material personal business transaction with Vendor; and (c) no RPS employee or board of Education member or his or her family is employed by Vendor.

I further certify that neither the Vendor nor anyone acting on its behalf has requested that any RPS employee or RPS Board of Education member exert any influence to secure the award of this bid to the Vendor. Furthermore, no RPS Board of Education member, employee or agent has offered to influence to secure the award of this bid to the Vendor

### VENDOR INFORMATION:

Vendor Name: \_\_\_\_\_

Vendor Address: \_\_\_\_\_

\_\_\_\_\_

Vendor Phone Number \_\_\_\_\_

Vendor Email: \_\_\_\_\_

Vendor FEIN: \_\_\_\_\_

# ROCKFORD PUBLIC SCHOOLS

## VENDOR CONFLICT OF INTEREST DISCLOSURE FORM

### DISCLOSURE STATEMENT:

I BELIEVE THE VENDOR NAMED ABOVE DOES have a potential conflict(s) of interest with a current RPS employee(s), or RPS Board of Education member(s).

☐

YES, the above statement is true.

☐

NO, the above statement is **NOT** true.

If you checked “**YES**” above, please provide the following information:

List all the Name(s) of RPS employee(s), RPS Board of Education member(s), or RPS employees’ or RPS Board of Education’s family member(s) with whom there may be a conflict of interest:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Provide a brief description of the nature of the potential conflict(s) of interest:

### SIGNATURE:

By my signature below, I certify that I am the Authorized Representative of the VENDOR named above and that all of the information provided above by signor is true and complete to the best of the signor’s knowledge:

\_\_\_\_\_  
Print the Name of the Vendor’s Authorized Representative

\_\_\_\_\_  
Print the Position Title of the Vendor’s Authorized Representative

\_\_\_\_\_  
Print the Name of the Vendor’s Authorized Representative

\_\_\_\_\_  
Date

# ROCKFORD PUBLIC SCHOOL DISTRICT NO. 205

## CERTIFIED CLEARED EMPLOYEE LIST

The undersigned \_\_\_\_\_, a vendor, supplier, professional services firm or contractor, hereby certifies under oath as follows:

1- a criminal history records check (if required under Supplementary Conditions section 11), a Statewide Sex Offender Database check and a Statewide Child Murderer and Violent Offender Against Youth Database check has been conducted for all employees as indicated by a check mark in the appropriate box in accordance with 105 ILCS 5/10-21.9 (the Act); and

2- that such employees have not been convicted of any of the enumerated criminal or drug offenses listed in the Act and their name does not appear on the noted Databases; and

3-the undersigned is an owner (if sole proprietor) or officer, member or partner of the undersigned authorized to execute this document binding the undersigned.

NO.	LAST NAME	M.I.	FIRST NAME	CRIMINAL HISTORY	DATABASES

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

This certificate Subscribed and Sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

Commission Expires : \_\_\_\_\_

Vendor Cert. Employee List No. \_\_\_\_\_

# ROCKFORD PUBLIC SCHOOL DISTRICT NO. 205

## BIDDER'S CERTIFICATIONS

### **NON-COLLUSION AFFIDAVIT**

The undersigned Bidder certifies that it has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by Bidder, entered into any combination, collusion, or agreement with any person relative to the price to be bid by anyone at such letting, nor to prevent any person from bidding, nor to induce anyone to refrain from bidding, and this Bid is made without reference to any other bid and without any agreement, understanding, or combination with any other person in reference to such bidding.

The undersigned Bidder further states that no person, firm, or corporation has, or will receive directly or indirectly, any rebate, fee, gift, commission, or thing of value based upon awarding of the Contract.

\_\_\_\_\_  
Name of Bidder (Please Print)

\_\_\_\_\_  
Bidder or authorized agent (Signature)/Date

### **EQUAL OPPORTUNITY**

The undersigned hereby certifies that Bidder is in compliance with the Equal Employment Opportunity Clause and the Illinois Fair Employment Practices Act.

\_\_\_\_\_  
Name of Bidder (Please Print)

\_\_\_\_\_  
Bidder or authorized agent (Signature)/Date

### **SEXUAL HARRASSMENT**

The undersigned hereby certifies that Bidder has complied and will comply with the requirement of Section 2-105 of the Illinois Human Rights Act (775 ILCS 5/2-105) with respect to sexual harassment policies. The terms of that law, as applicable, are hereby incorporated into the Contract.

\_\_\_\_\_  
Name of Bidder (Please Print)

\_\_\_\_\_  
Bidder or authorized agent (Signature)/Date

### **NO SMOKING/NO TOBACCO**

District are smoke free facilities. Bidder agrees that it and its employees will abide by the District's no smoking/no tobacco use policy (including snuff, electronic cigarettes and e-vapor products) at all times while on District grounds.

\_\_\_\_\_  
Name of Bidder (Please Print)

\_\_\_\_\_  
Bidder or authorized agent (Signature)/Date

### **DRUG FREE WORKPLACE**

Each Bidder, if having twenty-five employees or more, does hereby certify, pursuant to Section 3 of the Illinois Drug-Free Workplace Act (30 ILCS 580/3), that it shall provide a drug-free workplace for all employees engaged in the performance of services under the Contract by complying with the requirements of the Illinois Drug-Free Workplace Act, and further certifies that it is not ineligible for award of this Contract by reason of debarment for a violation of the Illinois Drug-Free Workplace Act.

\_\_\_\_\_  
Name of Bidder (Please Print)

\_\_\_\_\_  
Bidder or authorized agent (Signature)/Date

# ROCKFORD PUBLIC SCHOOL DISTRICT NO. 205

## BIDDER'S CERTIFICATIONS

### GENERAL BIDDING CERTIFICATIONS

The undersigned further certifies that:

1. Bidder has read, understands, and agrees that the District's acceptance of Bidder's offer by issuance of an award will create a binding Contract; subject to any District requirement for a formal written contract.
2. The undersigned is an authorized agent of Bidder, and is expressly authorized to execute this Certification on Bidder's behalf, to bind Bidder to the terms and conditions contained in this Bid Package, and to execute the Contract immediately upon notification by the District in the event Bidder's Bid is successful and Bidder is selected by the District to perform the Contract.
3. Bid submission is in compliance with Illinois Compiled Statutes 105 ILCS 5/10-20.21 - Contracts, and 105 ILCS 5/10-22.34c, Third Party Non-instructional Services
4. Bidder is the following type of business entity:    ☐ Corporation  
                                                                                 ☐ Partnership  
                                                                                 ☐ Sole Proprietor

Bidder is qualified to conduct business in the State of Illinois and is in good standing.

5. Bidder confirms it operates in compliance with HIPAA all other applicable legal requirements.
6. Bidder has and will at all times fully comply with the requirements of 105 ILCS 5/10-20.21(b) pertaining to the Illinois Use Tax Act.
7. All figures and responses submitted on the Bid Offer Form are true, complete, and accurate. All documents attached to and submitted with the Bid Offer Form are true, complete, and authentic.
8. Bidder's current financial statement is attached, which has been certified by a Certified Public Accountant or is authenticated by Bidders signature on this form as true, complete and accurate.
9. The Bid is firm and irrevocable for a period of sixty (60) days after Bid Opening, as detailed in the attached Instructions for Bidders.

\_\_\_\_\_  
Name of Bidder (Please Print)

\_\_\_\_\_  
Bidder or authorized agent (Signature)/Date



# **ROCKFORD PUBLIC SCHOOL DISTRICT NO. 205**

## **NOTICE OF ASBESTOS CONTAINING MATERIALS**

### **ACM ACKNOWLEDGEMENT**

The purpose of this Asbestos-Containing Material (ACM) Notice and acknowledgment is to ensure all bidders on Invitations for Bid which are awarded a contract, contractors and subcontractors who will perform work at facilities and grounds of the Rockford Public Schools (District Facilities) are aware that School District buildings may contain Asbestos Materials which should not be impacted or disturbed during the performance of contractor-related work.

Although inhalation of airborne asbestos fibers can cause adverse health reactions, the mere presence of materials containing asbestos is not dangerous. In good condition and left undisturbed, materials containing asbestos do not present a health hazard.

Prior to entering District Facilities for the purpose of performing any custodial, maintenance and/or construction work, all contractor personnel must familiarize themselves with any potential ACMs or presumed ACMs. All questions regarding whether building materials contain asbestos are to be directed to the RPS 205 Environmental Coordinator.

The Contractor and their personnel shall comply with all applicable federal, state, and local regulations, and ordinances, including, but not limited to all asbestos identification, training notification, handling, removal, and disposal regulations.

If working in District Facilities where ACM material(s) may be contacted but not disturbed, the contractor performing such work shall provide their employees with applicable Asbestos Awareness Training as required by OSHA 29 CFR 1926.1101. Such training shall be confirmed by the attachment of employee certificates to this ACM Notice.

I hereby acknowledge the information and instructions provided to me by the Rockford Public Schools in this ACM Notice regarding the presence of materials that contain asbestos or are presumed to contain asbestos within District Facilities. I agree that neither I, nor any person employed by me, will disturb any materials potentially containing asbestos under any circumstances. I understand that I may be responsible for the costs associated with any action required by the Rockford Public Schools as a result of any intentional disturbance of materials containing asbestos by myself or any of my employees.

---

Bidder/Contractor

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

---

Bidder/Contractor Authorized Signature



## Vendor Entry Form

FOR INTERNAL USE:

☐

**New Vendor**

☐

**Update Vendor**

**Reason for Entry/Change** (required): \_\_\_\_\_

**Type of Entry** (required):

☐

**Business**

☐

**Payroll**

☐

**Student/Parent**

☐

**Reimbursement External**

☐

**Reimbursement Internal**

☐

**Referee/Sports Official**

☐

**Other** \_\_\_\_\_

☐

**W-9 Attached**

W-9 should be included with all new vendor entry requests for payment. Reimbursements or internal record requests do not require a W-9 attachment but must include SSN after vendor name. All vendor entry requests will be entered but will remain inactive until required info/W-9 is provided.

### Entry Information:

**Vendor Affiliation:**

☐

**CORP**

☐

**PARTNERSHIP**

☐

**SOLE/IND**

☐

**LLC** (Indicate type below)

☐

**TRUST**

☐

**OTHER** \_\_\_\_\_

☐

**C-Corp**

☐

**S-Corp**

☐

**Woman-owned**

☐

**Minority-owned**

☐

**Veteran-owned**

☐

**Disabled**

☐

**P-Corp**

Single owner LLC select  
Sole Proprietorship above.

**Vendor Name/Business Name:** \_\_\_\_\_

SSN \_\_\_\_\_

**Address 1:** ☐ Location/Mailing ☐ Billing/Payment ☐ Other \_\_\_\_\_

**Address 2:** ☐ Location/Mailing ☐ Billing/Payment ☐ Other \_\_\_\_\_

**Phone:** Primary/Cell: \_\_\_\_\_

Orders/Cust Service: \_\_\_\_\_

Billing/Payments: \_\_\_\_\_

**Fax(s):** \_\_\_\_\_

**Email(s):** \_\_\_\_\_

**Contact Person/Rep Name and Contact Information:** (include special order/payment instructions)

\_\_\_\_\_  
\_\_\_\_\_

\* Please return completed form and required attachment(s) to purchasing@rps205.com.

# CONFIRMATION OF CALLED INSPECTION RECORDS

☐ 2009 International Building Code Called Inspection Records

	Called Inspection Type	Approval to Proceed Date	A/E or Qualified Inspector Signature	ISBE ID Number or A/E License Number
1.	Footing			
2.	Foundation			
3.	Concrete Slab / Under-floor			
4.	Lowest Floor Elevation			
5.	Framing			
6.	Lathe and Gypsum Board			
7.	Fire Resistant Penetrations			
8.	Energy Efficiency			
9.	Special Inspection			
10.	Final IBC			

☐ 2009 International Electrical Code (Appendix K) Called Inspection Records

	Called Inspection Type	Approval to Proceed Date	A/E or Qualified Inspector Signature	ISBE ID Number or A/E License Number
1.	Prefabricated Assembly Evaluation Report			
2.	Underground			
3.	Rough-in			
4.	Final IEC			

☐ 2009 International Energy Conservation Code Called Inspection Records

	Called Inspection Type	Approval to Proceed Date	A/E or Qualified Inspector Signature	ISBE ID Number or A/E License Number
1.	Foundation (thermal envelope)			
2.	Framing (thermal envelope)			
3.	Insulation (thermal envelope)			
4.	Rough-in "Okay to Cover" (mechanical, service water heating, electrical, lighting)			
5.	Final (mechanical, service water heating, electrical, lighting)			
6.	Final IECC			

☐ 2009 International Fire Code Called Inspection Records

	Called Inspection Type	Approval to Proceed Date	A/E or Qualified Inspector Signature	ISBE ID Number or A/E License Number
1.	Final IFC			

☐ 2009 International Mechanical and Fuel Gas Code Called Inspection Records

	Called Inspection Type	Approval to Proceed Date	A/E or Qualified Inspector Signature	ISBE ID Number or A/E License Number
1.	Prefabricated Assembly Evaluation Report			
2.	Underground Piping			
3.	Rough-in			
4.	Final IMC & IFGC			

# **AIA® Document A305™ – 1986**

## **Contractor's Qualification Statement**

The Undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

**SUBMITTED TO:**

**ADDRESS:**

**SUBMITTED BY:**

**NAME:**

**ADDRESS:**

**PRINCIPAL OFFICE:**

- ☐ Corporation
- ☐ Partnership
- ☐ Individual
- ☐ Joint Venture
- ☐ Other

**NAME OF PROJECT:** *(if applicable)*

**TYPE OF WORK:** *(file separate form for each Classification of Work)*

- ☐ General Construction
- ☐ HVAC
- ☐ Electrical
- ☐ Plumbing
- ☐ Other: *(Specify)*

### **§ 1 ORGANIZATION**

**§ 1.1** How many years has your organization been in business as a Contractor?

**§ 1.2** How many years has your organization been in business under its present business name?

**§ 1.2.1** Under what other or former names has your organization operated?

**§ 1.3** If your organization is a corporation, answer the following:

**§ 1.3.1** Date of incorporation:

**§ 1.3.2** State of incorporation:

### **ADDITIONS AND DELETIONS:**

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

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

This form is approved and recommended by the American Institute of Architects (AIA) and The Associated General Contractors of America (AGC) for use in evaluating the qualifications of contractors. No endorsement of the submitting party or verification of the information is made by AIA or AGC.

§ 1.3.3 President's name:  
§ 1.3.4 Vice-president's name(s)

§ 1.3.5 Secretary's name:  
§ 1.3.6 Treasurer's name:

§ 1.4 If your organization is a partnership, answer the following:

§ 1.4.1 Date of organization:  
§ 1.4.2 Type of partnership (if applicable):  
§ 1.4.3 Name(s) of general partner(s)

§ 1.5 If your organization is individually owned, answer the following:

§ 1.5.1 Date of organization:  
§ 1.5.2 Name of owner:

§ 1.6 If the form of your organization is other than those listed above, describe it and name the principals:

## § 2 LICENSING

§ 2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

§ 2.2 List jurisdictions in which your organization's partnership or trade name is filed.

## § 3 EXPERIENCE

§ 3.1 List the categories of work that your organization normally performs with its own forces.

§ 3.2 Claims and Suits. (If the answer to any of the questions below is yes, please attach details.)

§ 3.2.1 Has your organization ever failed to complete any work awarded to it?

§ 3.2.2 Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?

§ 3.2.3 Has your organization filed any law suits or requested arbitration with regard to construction contracts within the last five years?

§ 3.3 Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? (If the answer is yes, please attach details.)

§ 3.4 On a separate sheet, list major construction projects your organization has in progress, giving the name of project, owner, architect, contract amount, percent complete and scheduled completion date.

§ 3.4.1 State total worth of work in progress and under contract:

§ 3.5 On a separate sheet, list the major projects your organization has completed in the past five years, giving the name of project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own forces.

§ 3.5.1 State average annual amount of construction work performed during the past five years:

§ 3.6 On a separate sheet, list the construction experience and present commitments of the key individuals of your organization.

#### § 4 REFERENCES

§ 4.1 Trade References:

§ 4.2 Bank References:

§ 4.3 Surety:

§ 4.3.1 Name of bonding company:

§ 4.3.2 Name and address of agent:

#### § 5 FINANCING

§ 5.1 Financial Statement.

§ 5.1.1 Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:

Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses);

Net Fixed Assets;

Other Assets;



Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries and accrued payroll taxes);

Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).

§ 5.1.2 Name and address of firm preparing attached financial statement, and date thereof:

§ 5.1.3 Is the attached financial statement for the identical organization named on page one?

§ 5.1.4 If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., parent-subsidary).

§ 5.2 Will the organization whose financial statement is attached act as guarantor of the contract for construction?

## § 6 SIGNATURE

§ 6.1 Dated at this    day of

Name of Organization:

By:

Title:

§ 6.2

M    being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this    day of

Notary Public:

My Commission Expires:





# AIA Document A101T"- 2017

*Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum*

## FORM FOR INFORMATIONAL PURPOSES SEE APPLICATION NOTE BELOW

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)

Board of Education  
Rockford School District No. 205  
Winnebago and Boone Counties, Illinois  
501 Seventh Street  
Rockford, Illinois 61104

Project Manager: To be identified by Owner.

and the Contractor:  
(Name, legal status, address and other information)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

for the following Project:  
(Name, location and detailed description)

Project identified in the Invitation for Bid

The Architect:  
(Name, legal status, address and other information)

Architect identified in the Invitation for Bid

**APPLICATION:** A written and signed contract may be required by Owner. In the event no such written contract is required, the terms of this Agreement with all other terms and conditions certifications and forms contained in the Invitation for Bid and any Owner issued Addenda will comprise the Contract terms.

The Owner and Contractor agree as follows.

Owner is an Illinois public school district. This Contract is the result of the award of a publicly advertised Invitation for Bid issued by Owner pursuant to the provisions of the Illinois School Code pertaining to public contracts, particularly the provision of 105 ILCS 5/10-20.21. The Invitation for Bid, all Owner issued Addenda thereto and Contractor's Bid form a part of this Contract. The terms of Illinois statutes applicable hereto and policies of the Owner shall govern all terms and conditions of this Contract as though fully set forth herein.

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

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

The parties should complete A101™-2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement. AIA Document A201™-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

## TABLE OF ARTICLES

	THE CONTRACT DOCUMENTS
2	THE WORK OF THIS CONTRACT
3	DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
4	CONTRACT SUM
5	PAYMENTS
6	DISPUTE RESOLUTION
7	TERMINATION OR SUSPENSION
8	MISCELLANEOUS PROVISIONS
9	ENUMERATION OF CONTRACT DOCUMENTS

## EXHIBIT A INSURANCE AND BONDS

### 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, the documents contained within the Invitation for Bid, 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 a Modification, 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 SUBSTANTIAL COMPLETION

§ 3.1 The milestone dates of the Work shall be:

Commencement of Construction: \_\_\_\_\_

Substantial Completion: \_\_\_\_\_

*(Paragraphs deleted)*

Final Completion: \_\_\_\_\_

If a date of commencement of the Work is not provided above, the milestone dates shall be as included in the Invitation for Bid or any Owner issued Addenda; if none provided, 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

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire

*(Paragraphs deleted)*

Work on or before the date set forth in section 3.1.

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the date specified in the Invitation for Bid or Owner issued Addenda.

*(Table deleted)*

§ 3.3.3 Intentionally Deleted.

#### 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 the amount of (\$ \_\_\_\_\_); if blank, the sum shall be the amount contained in Contractor's Bid as awarded by Owner to Contractor, subject to additions and deductions as provided in the Contract Documents.

#### § 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract shall be as follows; however, if none included in this section, then the Alternates included in the Contractor's Bid as awarded by Owner to Contractor:

*(Table deleted)*

#### § 4.2.2

*(Paragraphs deleted)*

Intentionally Deleted.

*(Table deleted)*

#### § 4.3 Allowances, if any, included in the Contract

*(Paragraphs deleted)*

Sum; if none listed, then the allowances included in Contractor's Bid as awarded by Owner to Contractor:

*(Table deleted)*

#### § 4.4 Unit prices, if

*(Paragraphs deleted)*

any; if none listed, then the unit prices included in Contractor's Bid as awarded by Owner to Contractor:

*(Table deleted)*

#### § 4.5

*(Paragraphs deleted)*

Intentionally Deleted.

#### § 4.6

*(Paragraphs deleted)*

Intentionally Deleted.

#### ARTICLE 5 PAYMENTS

#### § 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to and approved by the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make payments on account of the Contract Sum to the Contractor pursuant to Owner's policies and procedures as included in the Invitation for Bid and as provided elsewhere in the Contract Documents.

§ 5.1.2 Contractor shall submit a schedule of values to the Architect before submitting the first payment request on AIA Document G703- 2017 (or current) as required in the Supplementary Conditions. Contractor shall submit not more than one Application for Payment per month. The period covered by each Application for Payment shall be one calendar month ending on the last day of the month. Contractor shall submit a draft Application for Payment on or before the date(s) established by the Project Manager. A supplemental Application for Payment may be required by Owner at the end of a school year (June 30).

§ 5.1.3 Payments to Contractor shall be made according to the provisions contained in the Invitation for Bid and Owner's policies and procedures; provided, that Owner shall comply with the Local Government Prompt Payment Act (50 ILCS 505 et. seq.)

§ 5.1.4 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 Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 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.

§ 5.1.6 In accordance with AIA Document A201™-2017, General Conditions of the Contract for Construction as revised by Owner, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.1 The amount of each progress payment shall be the amount of Architect approved certificate for payment computed as follows:

- .1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values; and,
- .2 That portion of changes in the Work pending final determination of cost to Owner and in accordance with section 6 of the Supplementary Conditions; amounts not in dispute shall be included; and,
- .3 the amount, if any, in accordance with and approved in writing for delivery of goods and materials stored offsite pursuant to the Supplementary Conditions section 21.

§ 5.1.6.2 The amount of each payment shall 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 A201-2017 as revised by Owner;
- .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 A201-2017 as revised by Owner; and
- .5 Retainage withheld pursuant to Section 5.1.7.

#### § 5.1.7 Retainage

§ 5.1.7.1 For each payment made prior to Substantial Completion of the Work, the Owner may withhold the amount of ten percent (10.00%), as retainage, from the payment otherwise  
(Paragraphs deleted)  
due.

##### § 5.1.7.1.1

(Paragraphs deleted)

Intentionally Deleted.

##### § 5.1.7.2

(Paragraphs deleted)

Contractor may request a reduction in retainage according to the provisions of the Supplementary Conditions section 7.

##### § 5.1.7.3

(Paragraphs deleted)

Intentionally Deleted.

§ 5.1.8 Intentionally Deleted.

§ 5.1.9 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 to the site or incorporated into the Work.

## § 5.2 Final Payment

§ 5.2.1 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 A201-2017 as revised by Owner, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made after the issuance of the Architect's final Certificate for Payment and within the time provided in the Invitation for Bid and in accordance with the Local Government Prompt Payment Act.

## § 5.3

*(Paragraphs deleted)*  
Intentionally Deleted.

## ARTICLE 6 DISPUTE RESOLUTION

### § 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to  
*(Paragraphs deleted)*  
AIA Document A201-2017 as revised by Owner.

### § 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation or arbitration pursuant to AIA Document A201-2017 as revised by Owner, the method of binding dispute resolution shall be  
*(Paragraphs deleted)*  
litigation in a court of competent jurisdiction.

*(Paragraph deleted)*

Owner and Contractor may but shall not be required to submit claims to arbitration or mediation. If Owner and Contractor each independently agree to mediation or arbitration, such arbitration or mediation shall proceed according to the provisions of AIA Document A201-2017 as revised by Owner. Arbitration may be requested by either party in writing. If the responding party declines to arbitrate or mediate or fails to respond to the written request within 7 days of receipt, the sole method of dispute resolution for such claim shall be litigation in a court of competent jurisdiction.

Jurisdiction for all purposes of this Agreement and all parties hereto shall be the laws of the State of Illinois and venue shall lie in Winnebago County, Illinois.

## ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated or suspended by the Owner as provided in AIA Document A201-2017 as revised by Owner and further as provided in the Invitation for Bid.

### § 7.1.1

*(Paragraphs deleted)*  
Intentionally Deleted.

*(Paragraph deleted)*

## ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201-2017 as revised by Owner 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 :

Lori Hoadley  
Chief of Operations  
Rockford Public Schools  
501 Seventh Street  
Rockford, Illinois 61104

The Project Manager: As identified by Owner.

§ 8.3 The Contractor's representative:

As identified on Contractor's Bid.

§ 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 the Contract Documents.

§ 8.5.2 The Contractor shall provide performance and labor and materials payment bonds as set forth in the Contract Documents.

§ 8.6

*(Paragraphs deleted)*

Intentionally Deleted.

§ 8.7 Intentionally Deleted.

#### ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document AJOJTM\_2017, Standard Form of Agreement Between Owner and Contractor as revised by Owner; provided that Owner may require the execution of a written Contract in which event that document shall be part of the Agreement and this form AIA Document AJOI-2017 deleted.
- .2 AIA Document A20JTM\_2017, General Conditions of the Contract for Construction as revised by Owner and included in the Invitation for Bid and the Addendum.

*(Paragraphs deleted)*

- .3 The terms and conditions included in the advertised Invitation for Bid including the Owner's General Terms and Conditions, Supplemental Instructions to Bidders and Supplementary Conditions.
- .4 Drawings and specifications as included in the advertised Invitation for Bid.

*(Paragraphs deleted).* Addenda, if any, issued by Owner prior to bid opening:

*(Paragraphs deleted)*

This Agreement entered into as of the day and year first written above.

*(Paragraph deleted)*

*(Row deleted)*

OWNER

CONTRACTOR *(Signature)*

Init.



BOARD OF EDUCATION  
ROCKFORD SCHOOL DISTRICT NO. 205  
WINNEBAGO AND BOONE COUNTIES, ILLINOIS

\_\_\_\_\_  
*President*

\_\_\_\_\_  
*(Printed name and title)*

\_\_\_\_\_  
*(Paragraphs deleted)*  
*Secretary*

Init.



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
12/20/2017

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 have **ADDITIONAL INSURED** provisions or 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 Agency Name Address Info	CONTACT NAME: AGENT NAME AND CONTACT INFORMATION	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
INSURED DEF CONSTRUCTION COMPANY 456 MAIN STREET ANYWHERE, IL U.S.A.	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A: A VII or Higher Rated Ins. Co.	
	INSURER B:	
	INSURER C:	
	INSURER D:	
INSURER E:		
INSURER F:		

## COVERAGES

CERTIFICATE NUMBER: 1608124671

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 INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER:	Y		00-00-00	1/1/2018	1/1/2019	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$50,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$3,000,000 PRODUCTS - COMP/OP AGG \$3,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY	Y		00-00-00	1/1/2018	1/1/2019	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$	Y		00-00-00	1/1/2018	1/1/2019	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	00-00-00	1/1/2018	1/1/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
A	Professional Liability			00-00-00	1/1/2018	1/1/2019	Per Claim 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

SCHOOL DISTRICT 999 is named as additional insured on a primary and non-contributory basis as their interests may appear except for workers compensation. Umbrella or Excess Liability provides follow form coverage. Notice of Cancellation/Material change, if applicable, should be attached to Certificate of Insurance or otherwise evidenced as in effect under the policies listed.

## CERTIFICATE HOLDER

## CANCELLATION

SCHOOL DISTRICT 999 789 MAIN STREET ANYWHERE U.S.A.	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

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AUBURN HIGH SCHOOL CAMERA EQUIPMENT SCHEDULE

CAMERA NO.	CAMERA LENSE TYPE	CAMERA MANUFACTURER/MODEL NUMBER
A1	360 DEGREE	AXIS P3717-PL
A2	360 DEGREE	AXIS P3717-PL
A3	360 DEGREE	AXIS P3717-PL
A4	360 DEGREE	AXIS P3717-PL
A18	360 DEGREE	AXIS P3717-PL
A19	360 DEGREE	AXIS P3717-PL
A20	180 DEGREE	AXIS Q3708-PL
A21	180 DEGREE	AXIS Q3708-PL
A22	360 DEGREE	AXIS P3717-PL
A23	360 DEGREE	AXIS P3717-PL
A24	360 DEGREE	AXIS P3717-PL
A25	360 DEGREE	AXIS P3717-PL
A26	360 DEGREE	AXIS P3717-PL
A27	360 DEGREE	AXIS P3717-PL
A28	360 DEGREE	AXIS P3717-PL
A29	180 DEGREE	AXIS P3717-PL
A30	180 DEGREE	AXIS P3717-PL
A31	180 DEGREE	AXIS P3717-PL
A32	180 DEGREE	AXIS P3717-PL
A33	360 DEGREE	AXIS Q6000-E MKII
A34	180 DEGREE	AXIS Q3708-PVE

- NOTES:
- EACH CAMERA SHALL INCLUDE ALL AXIS MOUNTS, PENDANT KITS, AND HARDWARE REQUIRED FOR THE MOUNTING LOCATION.
  - EACH CAMERA SHALL INCLUDE ONE (1) AXIS T8154 60W SFP MIDSPAN OR NITEK ETHERSTRETCH EL1500U (ONE (1) PER CAMERA).
  - LIGHTNING SUPPRESSION SHALL BE INSTALLED FOR EACH CAMERA.

- KEY NOTES (APPLIES TO ALL SHEETS)
- COORDINATE WITH LOCAL UTILITY (COMED) AND REMOVE ALL FOUR EXISTING WOODEN LIGHT POLES AND ASSOCIATED ELECTRICAL WIRING.
  - MOUNT CAMERA ON WALL OF EXISTING PRESSBOX ABOVE FIRST LEVEL, AT FLOOR OF SECOND LEVEL. CAMERA SHALL NOT OBSTRUCT VIEW OF FIRST LEVEL WINDOW.
  - MOUNT CAMERA AT HANDHOLD ON POLE, OR APPROXIMATELY 20' ABOVE GRADE.
  - NEW QUARTZITE PULL BOX - SEE DETAIL. PROVIDE 36" SLACK LOOP FOR ALL CABLES.
  - MOUNT CAMERA, CENTERED UNDER BLEACHERS, APPROXIMATELY 20' ABOVE GRADE ON HORIZONTAL SUPPORT BEAM. FOLLOW EXISTING CONDUIT ROUTING.
  - LOCATE NEW FIXTURE TYPE "A" IN LOCATION AS SHOWN, CUT AND PATCH PAVEMENT AS REQUIRED.
  - REMOVE 3 POLE BREAKER IN SPACE 29 AND REPLACE WITH THREE (3) 20AMP/1POLE BREAKERS. WIRE NEW FIXTURES TO BRANCH CIRCUIT 29, LABEL 31, & 33 AS SPARE.
  - PULL BOX - SIZE AS REQUIRED, EXTERIOR BOXES ABOVE GRADE SHALL BE STAINLESS STEEL NEMA 4X.
  - COORDINATE ROUTING WITH EXISTING CONDITIONS. TYPICAL FOR ALL NEW CONDUITS REQUIRED FOR NEW WORK.
  - TERMINATE OUTDOOR FIBER IN EXISTING FIBER OPTIC PATCH PANEL. TRANSITION TO INDOOR FIBER AND CONTINUE FIBER TO ER104A.
  - ROUTE OUTDOOR RATED OS2 FIBER IN 2" EMT FROM PULL BOX TO TR FH.
  - ROUTE CAT6 CABLE TO FIELD HOUSE IDF24-2 FOR THIS CAMERA LOCATION. TERMINATE NEW CABLES IN NEW 48 PORT MPP IN EXISTING CABINET. COORDINATE FINAL MOUNTING LOCATION WITH OWNER.
  - COORDINATE EXACT MOUNTING LOCATION ON BUILDING WITH RPS.
- GENERAL NOTE (APPLIES TO ALL SHEETS)
- CONTRACTOR SHALL COMPLETELY INSTALL AND WIRE CAMERAS, TO INCLUDE AIMING AND FOCUS. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES REQUIRED FOR EACH SPECIFIC MOUNTING LOCATION. COORDINATE WITH RPS IT DEPARTMENT DURING INSTALLATION.

SYSTEMS DESIGN SERVICE

5000 EAST STATE STREET SUITE 215 ROCKFORD, ILLINOIS 61108  
PHONE (815) 399-3381 FAX (815) 399-3383 WWW.SDSGROUP.COM  
ILL. PROF. DESIGN FRM #04-004494

NEW PARKING LOT CAMERAS FOR:

RPS #205

AUBURN & GULFORD HIGH SCHOOLS

ROCKFORD, ILLINOIS

REGISTERED PROFESSIONAL ENGINEER

SCOTT JAY BAIER

620-59748

STATE OF ILLINOIS

DATE 06/26/2019

SIGNATURE

DATE 06/26/2019

EXPIRES 06-30-2024

CHECKED BY:

SDSE

DRAWN BY:

SDS

DATE:

06/26/2019

AUBURN HS

ELECTRICAL NEW

WORK SITE PLAN

PROJECT #:

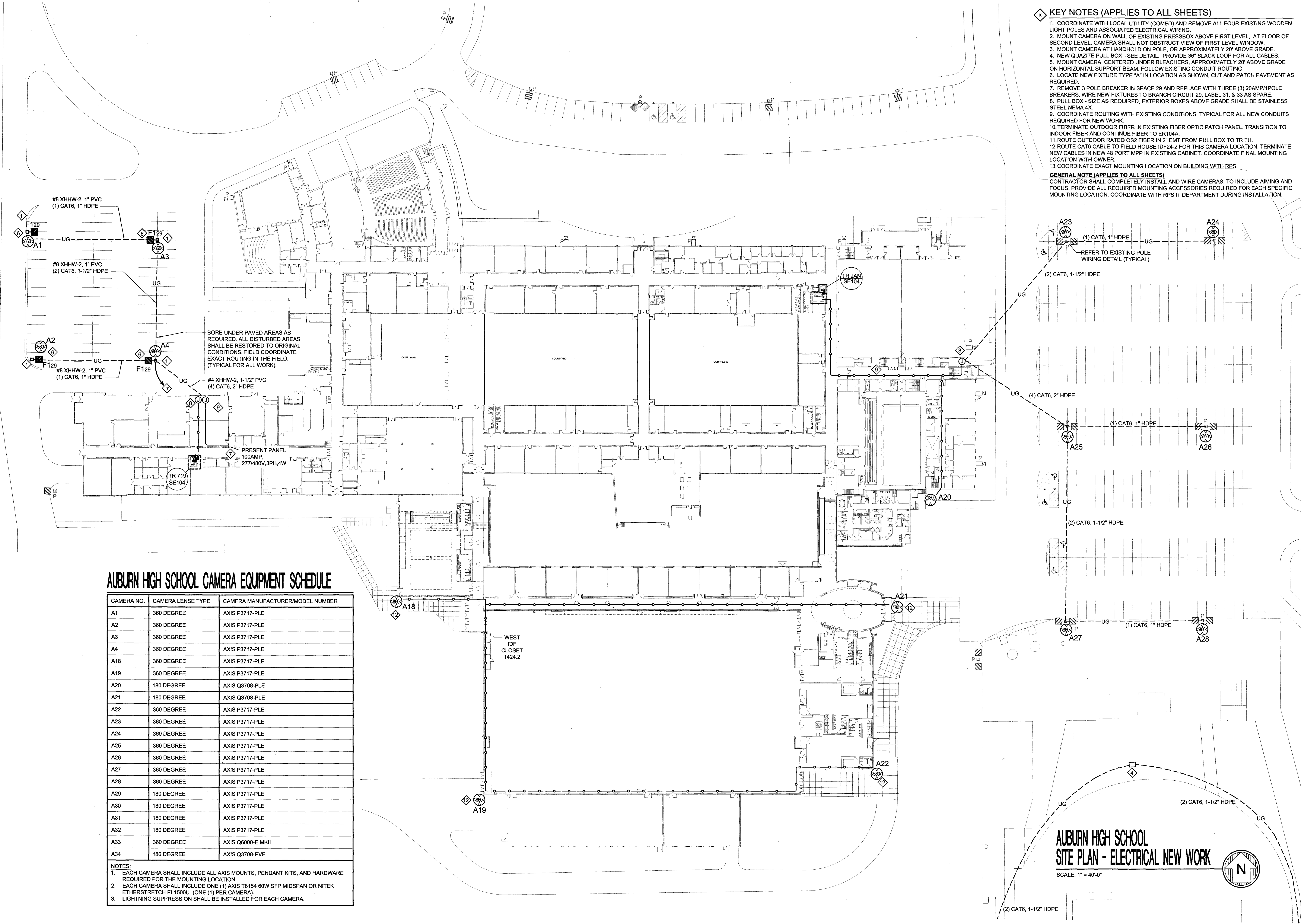
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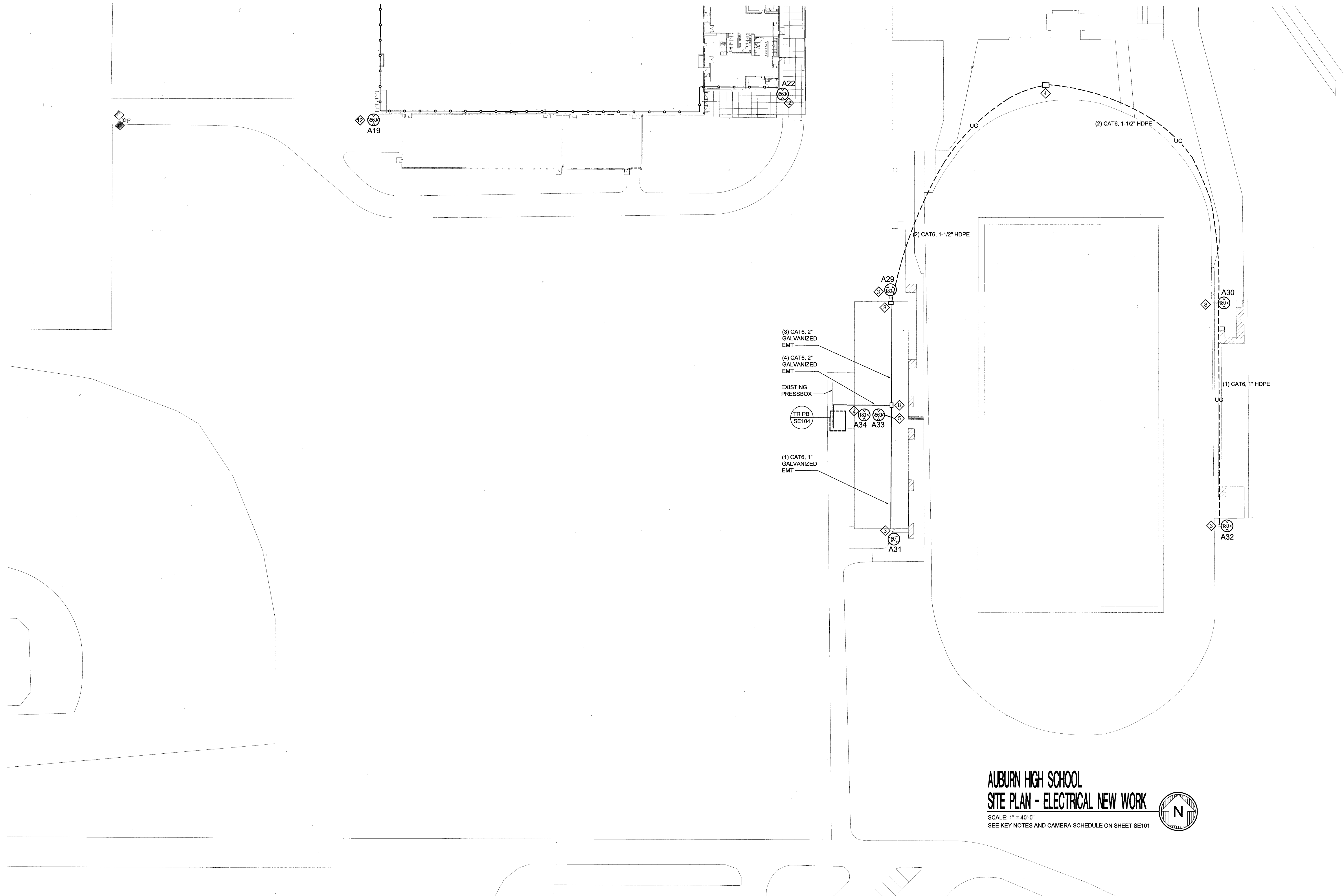
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SE101

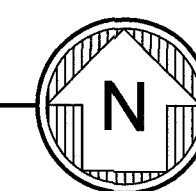
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11

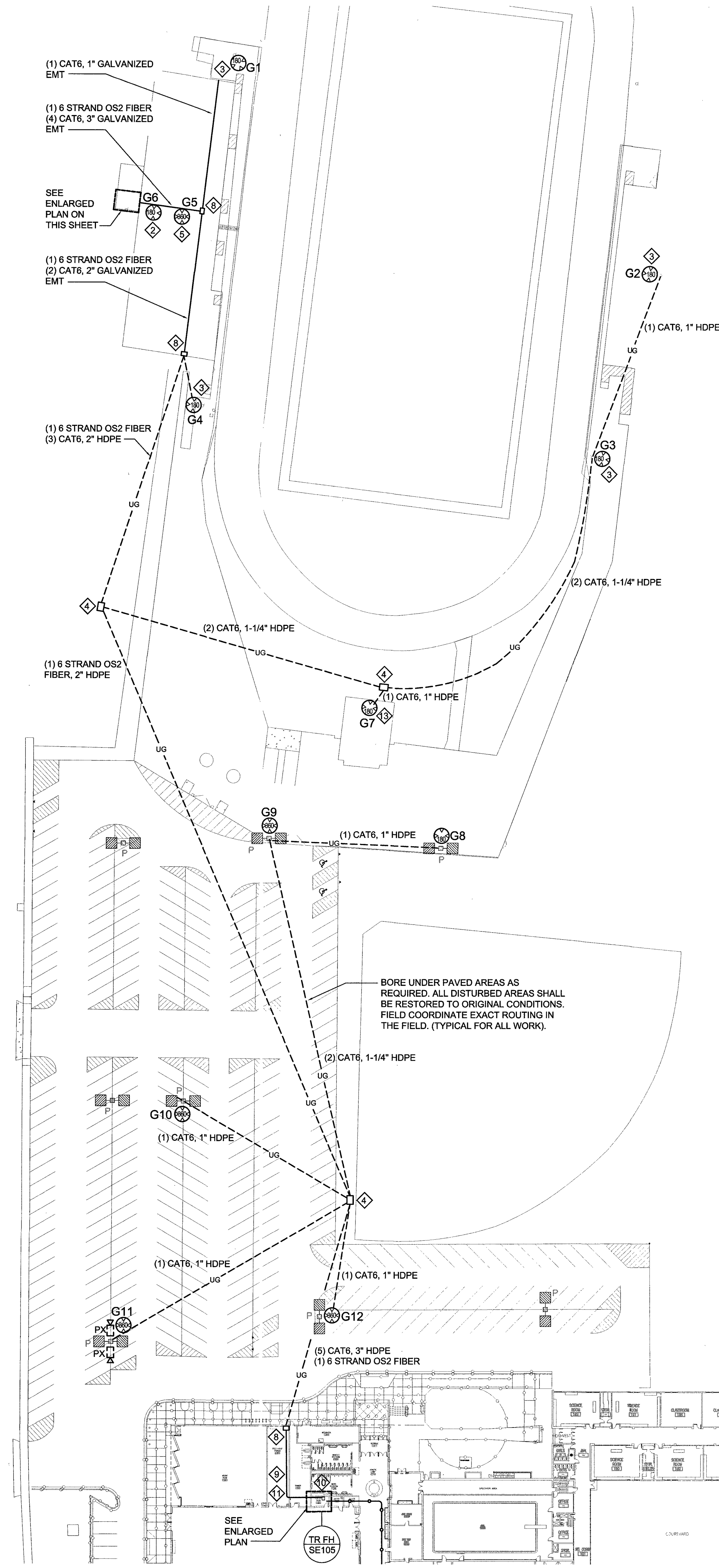




AUBURN HIGH SCHOOL  
SITE PLAN - ELECTRICAL NEW WORK  
SCALE: 1" = 40'-0"  
SEE KEY NOTES AND CAMERA SCHEDULE ON SHEET SE101







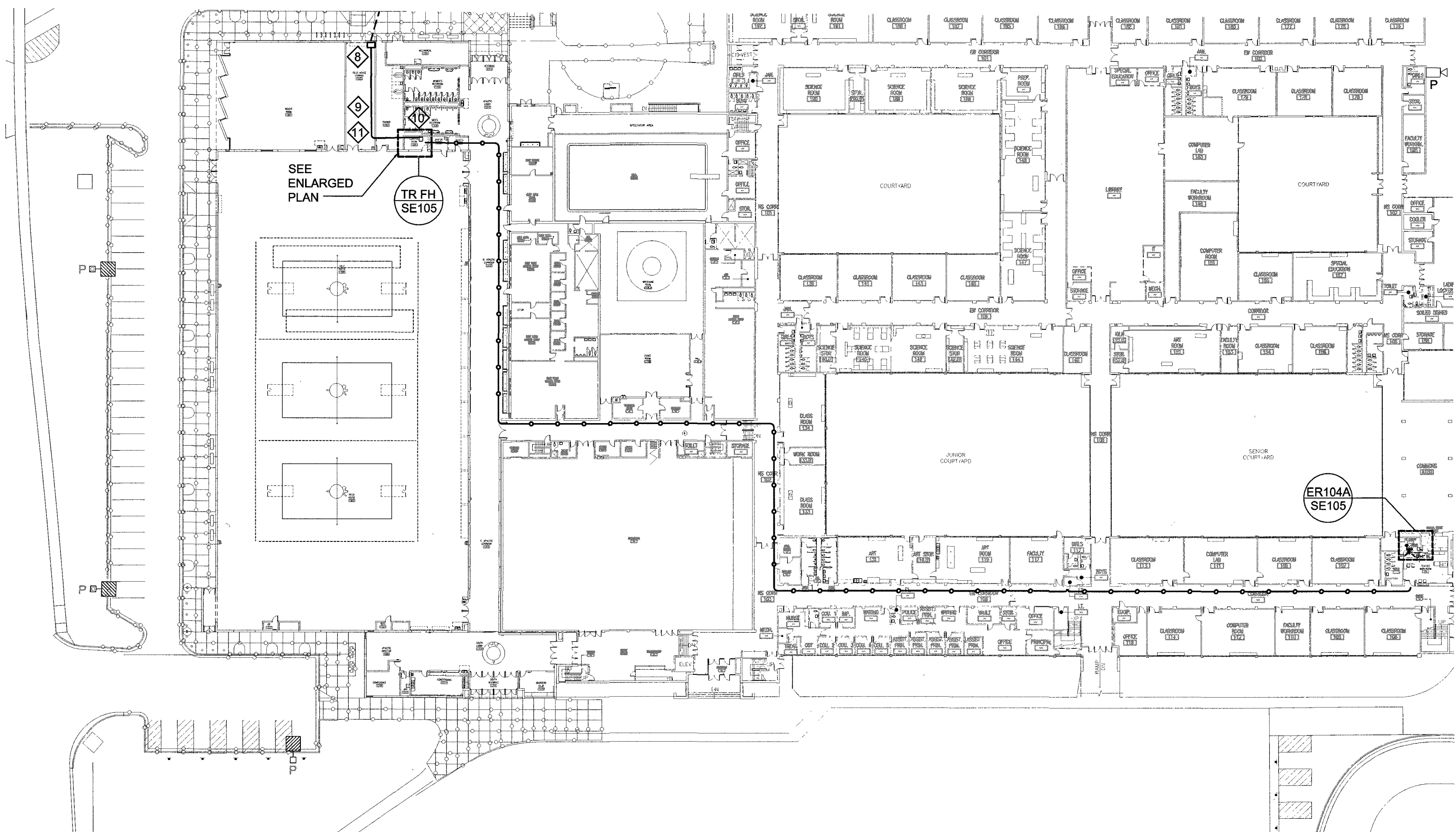
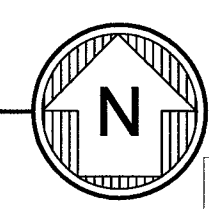
### GUILFORD HIGH SCHOOL CAMERA EQUIPMENT SCHEDULE

CAMERA NO.	CAMERA LENSE TYPE	CAMERA MANUFACTURER/MODEL NUMBER
G1	180 DEGREE	AXIS P3708-PVE
G2	180 DEGREE	AXIS P3708-PVE
G3	180 DEGREE	AXIS P3708-PVE
G4	180 DEGREE	AXIS P3708-PVE
G5	360 DEGREE	AXIS Q6000-E MKII
G6	180 DEGREE	AXIS P3708-PVE
G7	180 DEGREE	AXIS P3708-PVE
G8	180 DEGREE	AXIS P3708-PVE
G9	360 DEGREE	AXIS P3717-PL
G10	360 DEGREE	AXIS P3717-PL
G11	360 DEGREE	AXIS P3717-PL
G12	360 DEGREE	AXIS P3717-PL

- NOTES:
1. EACH CAMERA SHALL INCLUDE ALL AXIS MOUNTS, PENDANT KITS, AND HARDWARE REQUIRED FOR THE MOUNTING LOCATION.
  2. EACH CAMERA SHALL INCLUDE ONE (1) AXIS T8154 60W SFP MIDSPAN OR NITEK ETHERSTRETCH EL1500U (ONE (1) PER CAMERA).
  3. LIGHTNING SUPPRESSION SHALL BE INSTALLED FOR EACH CAMERA.

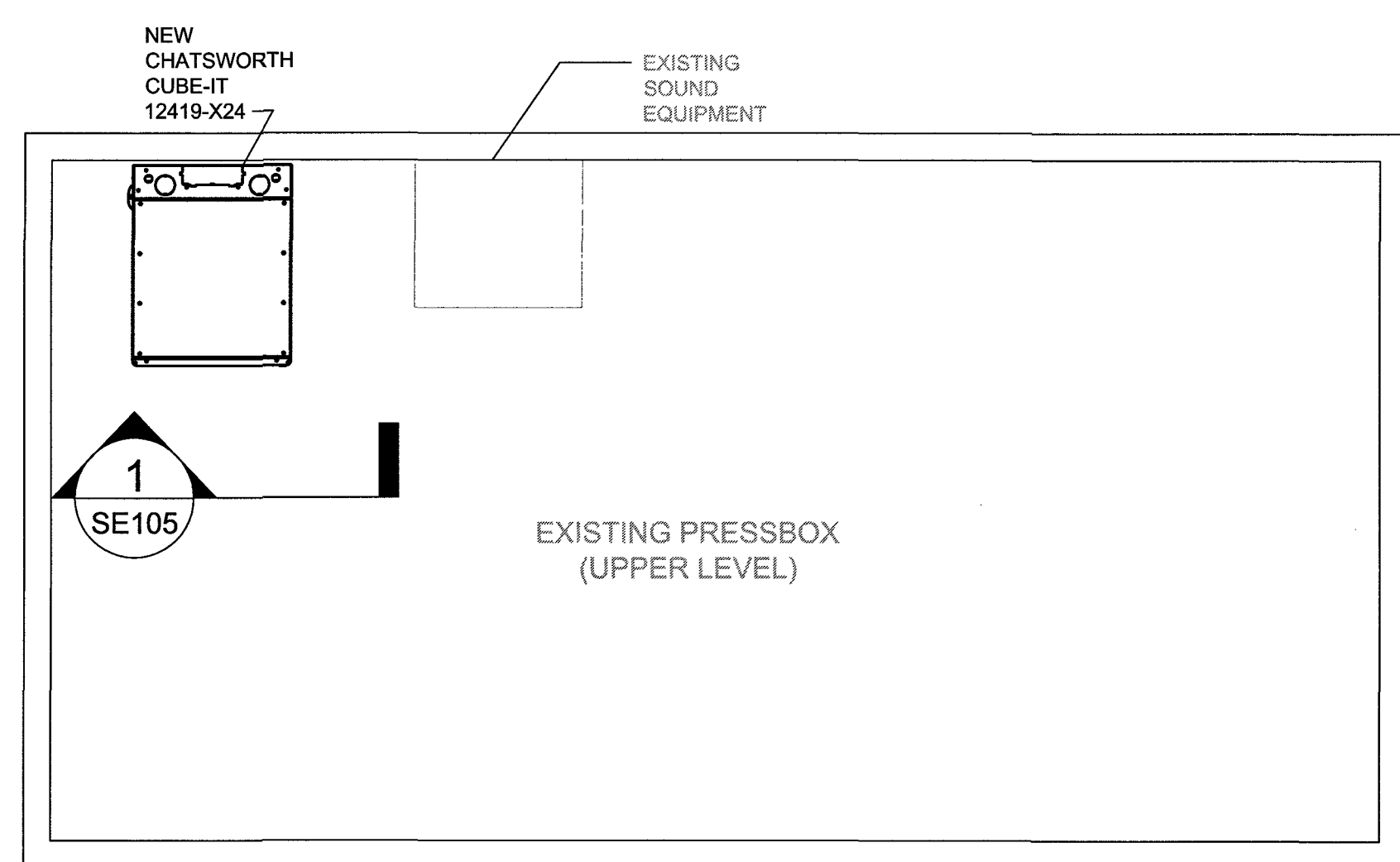
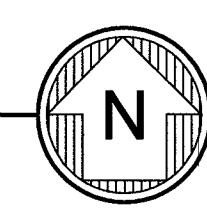
### GUILFORD HIGH SCHOOL SITE PLAN - ELECTRICAL NEW WORK

SCALE: 1" = 50'-0"  
SEE KEY NOTES ON SHEET SE101



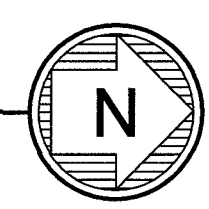
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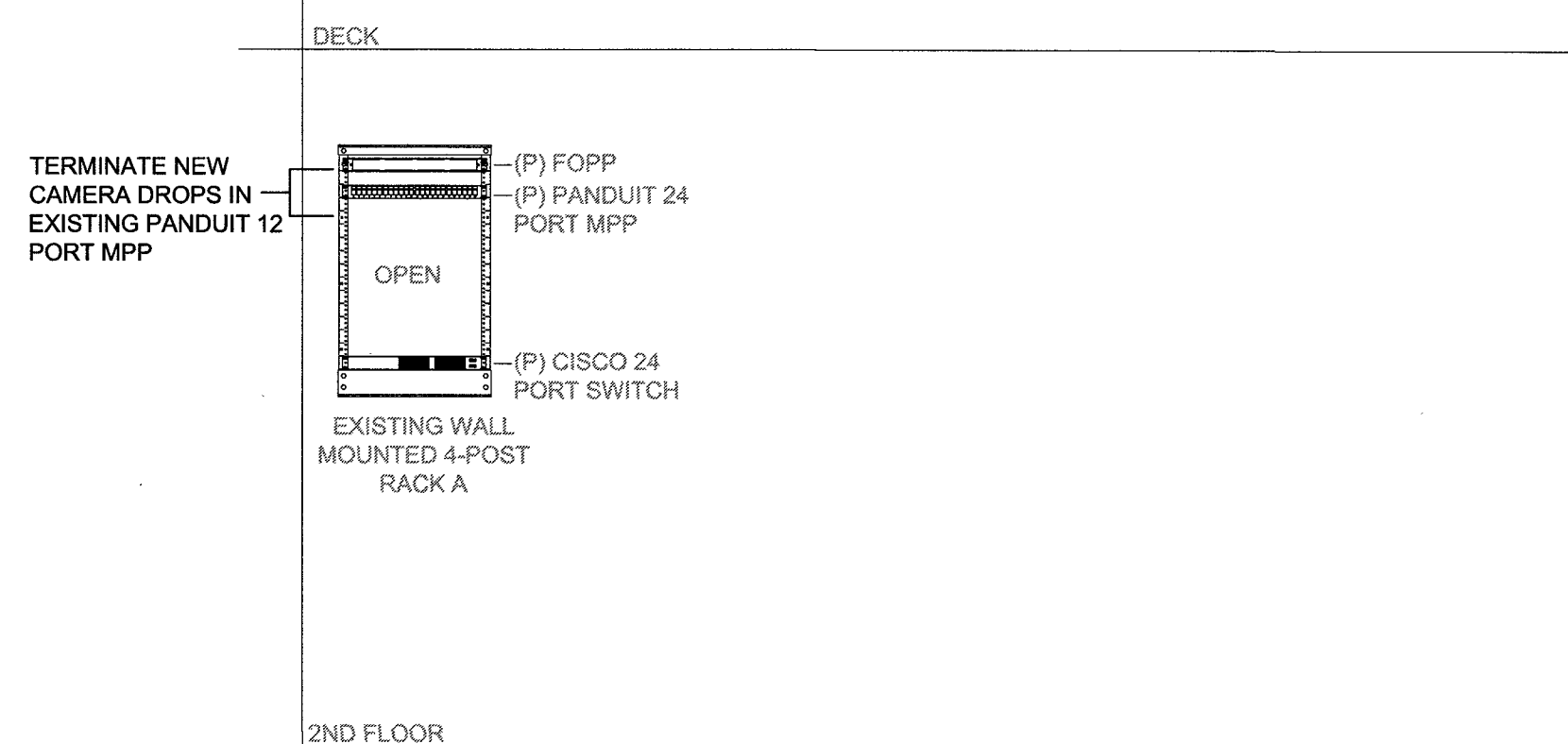
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SEE KEY NOTES ON SHEET SE101



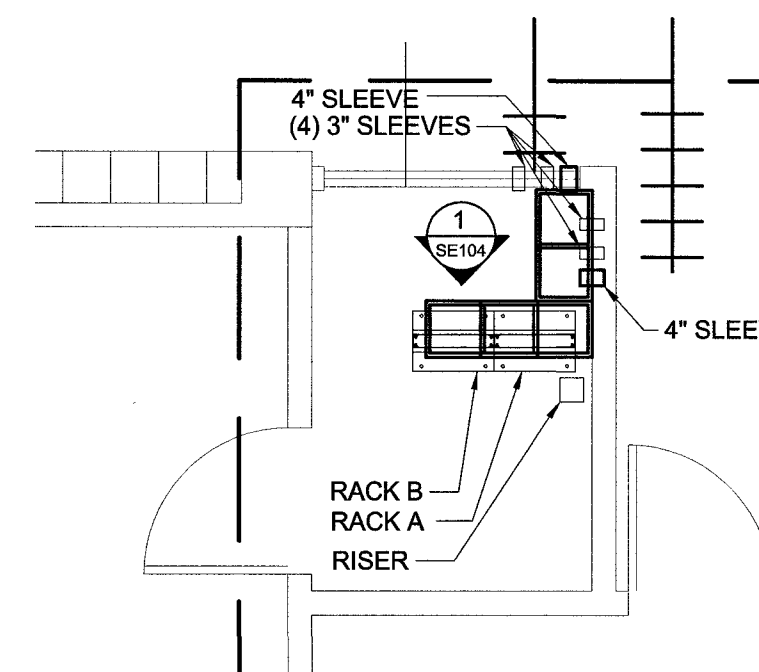
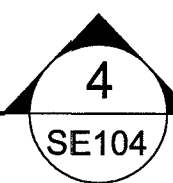
### GUILFORD HIGH SCHOOL PRESSBOX - ELECTRICAL NEW WORK

SCALE: 1/2" = 1'-0"

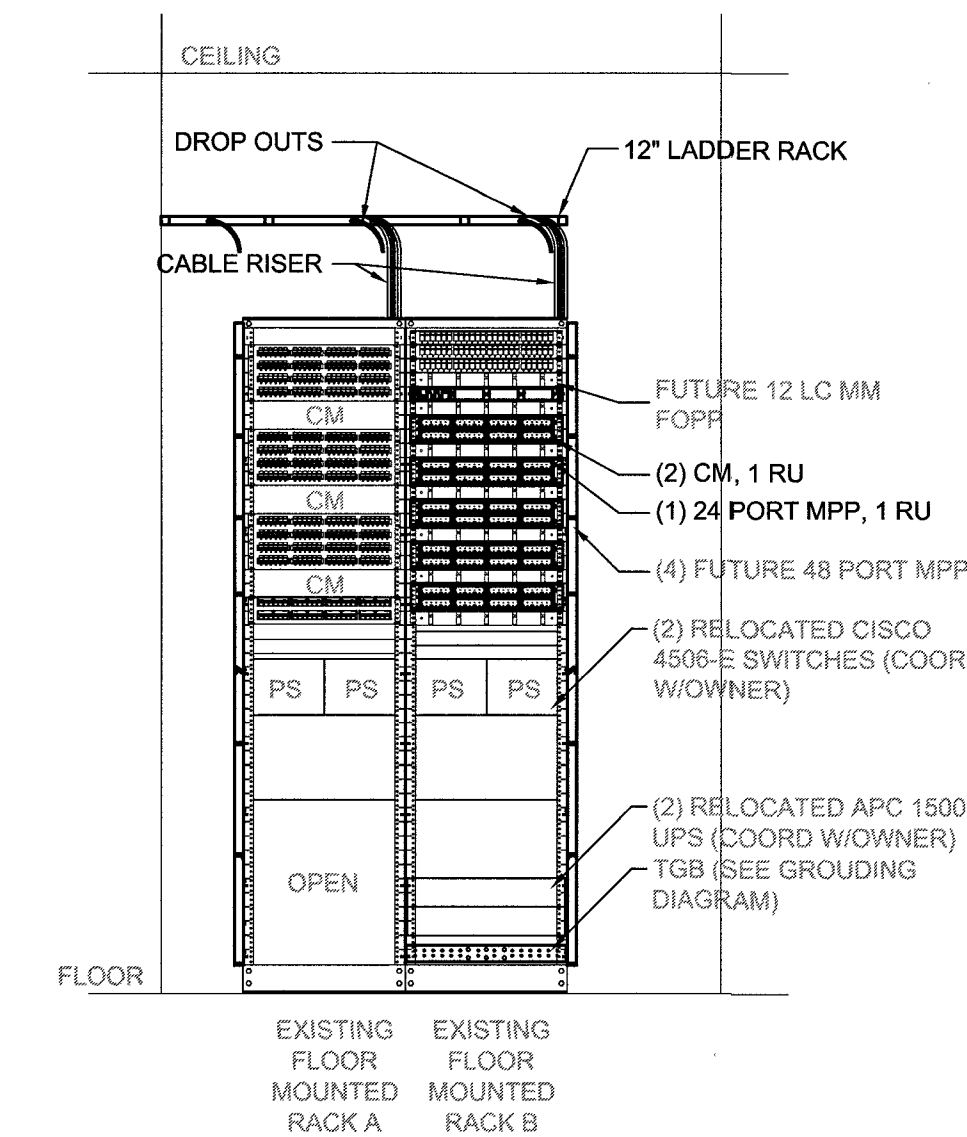
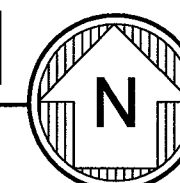




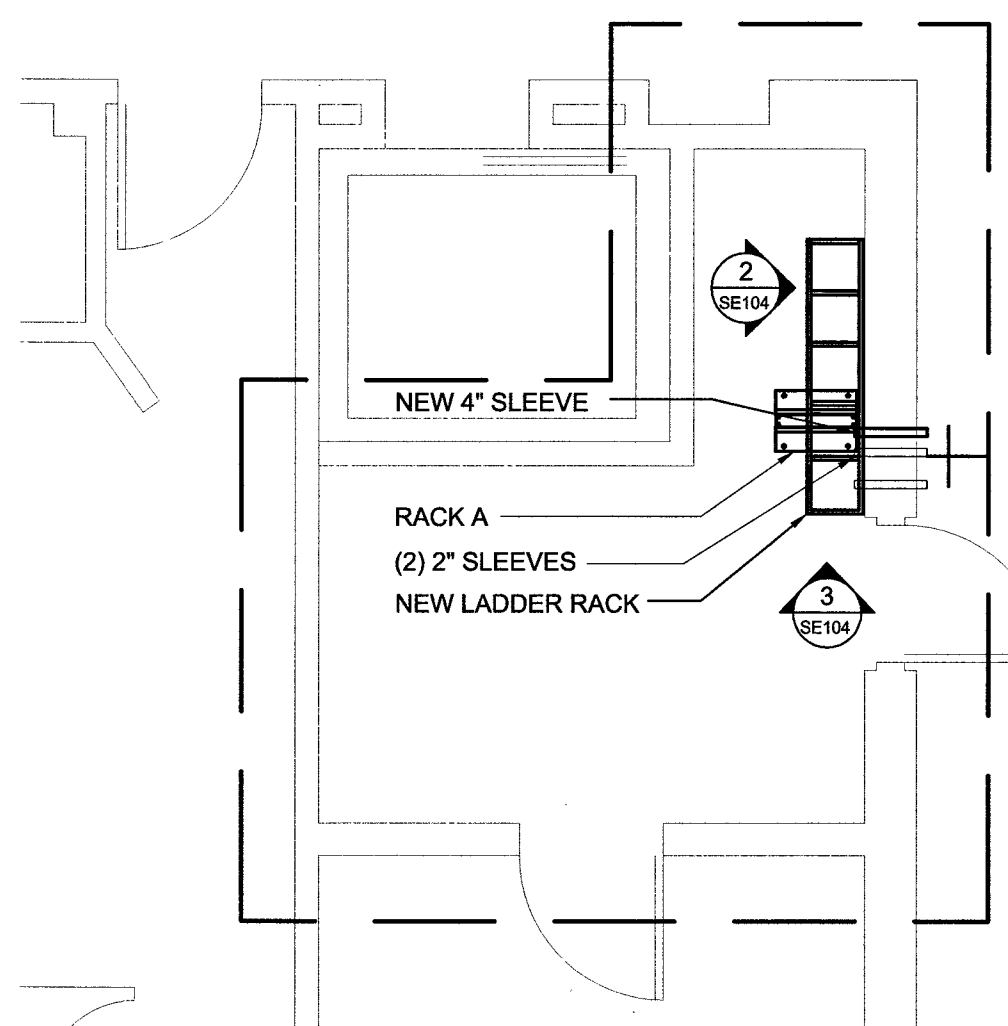
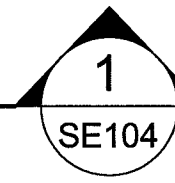
AUBURN HIGH SCHOOL  
EXISTING RACK ELEVATION - TR PB  
SCALE: 1/2" = 1'-0"



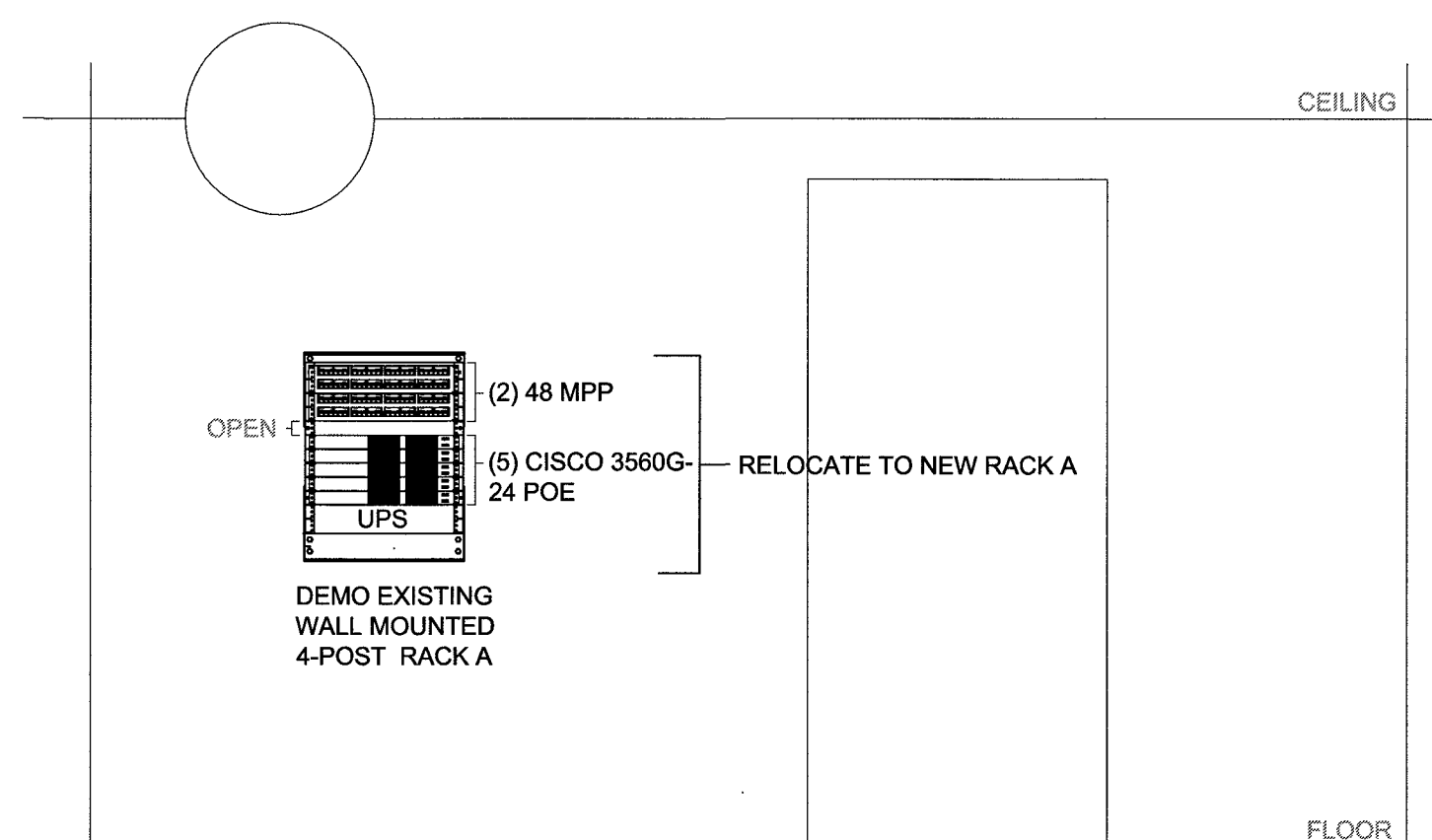
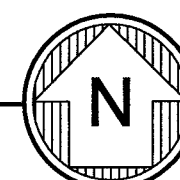
AUBURN HIGH SCHOOL  
ENLARGED PARTIAL PLAN  
SCALE: 1/4" = 1'-0"



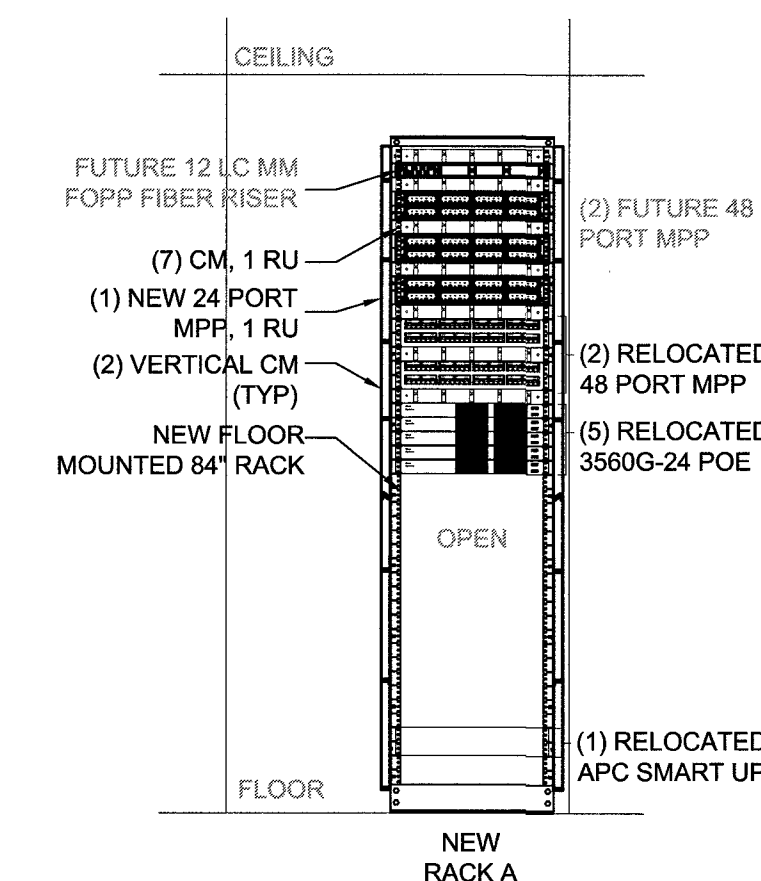
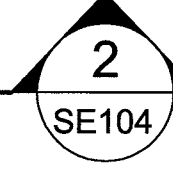
AUBURN HIGH SCHOOL  
NEW RACK ELEVATION - TR 719  
SCALE: 1/2" = 1'-0"



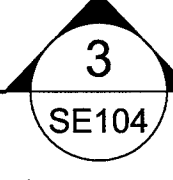
AUBURN HIGH SCHOOL  
ENLARGED PARTIAL NEW WORK PLAN TR JAN  
SCALE: 1/4" = 1'-0"



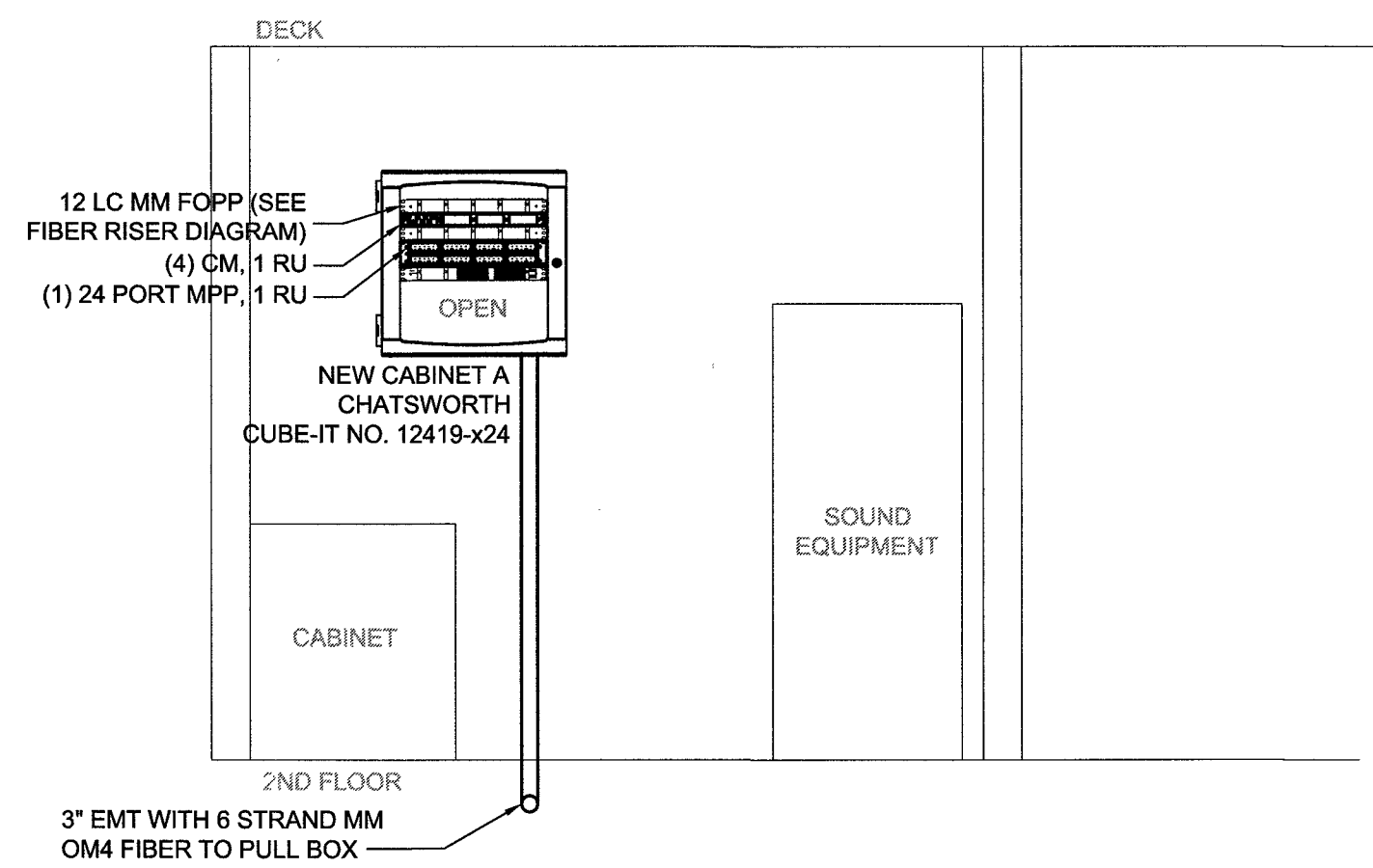
AUBURN HIGH SCHOOL  
EXISTING RACK ELEVATION - TR JAN  
SCALE: 1/2" = 1'-0"



AUBURN HIGH SCHOOL  
NEW RACK ELEVATION - TR JAN  
SCALE: 1/2" = 1'-0"

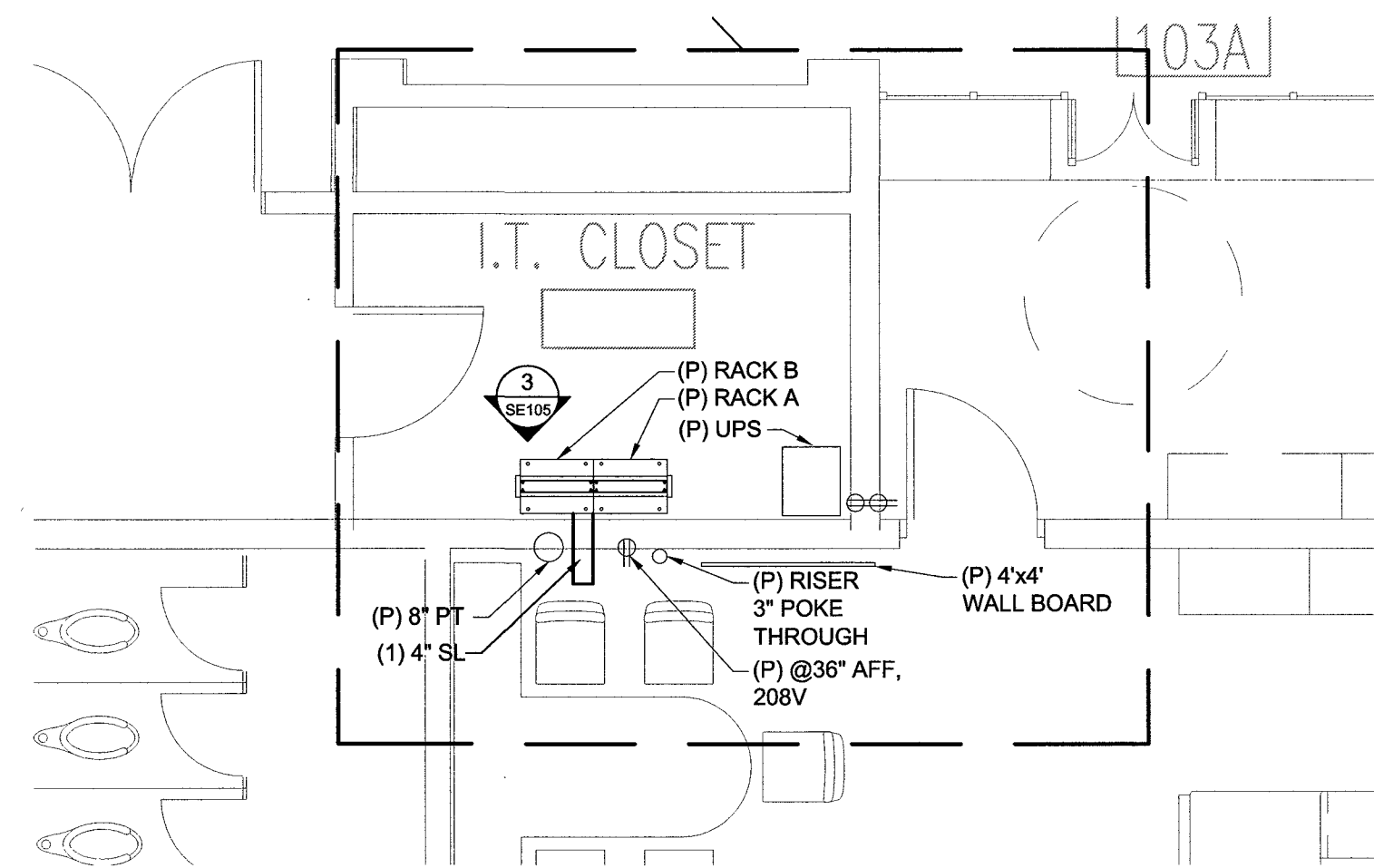






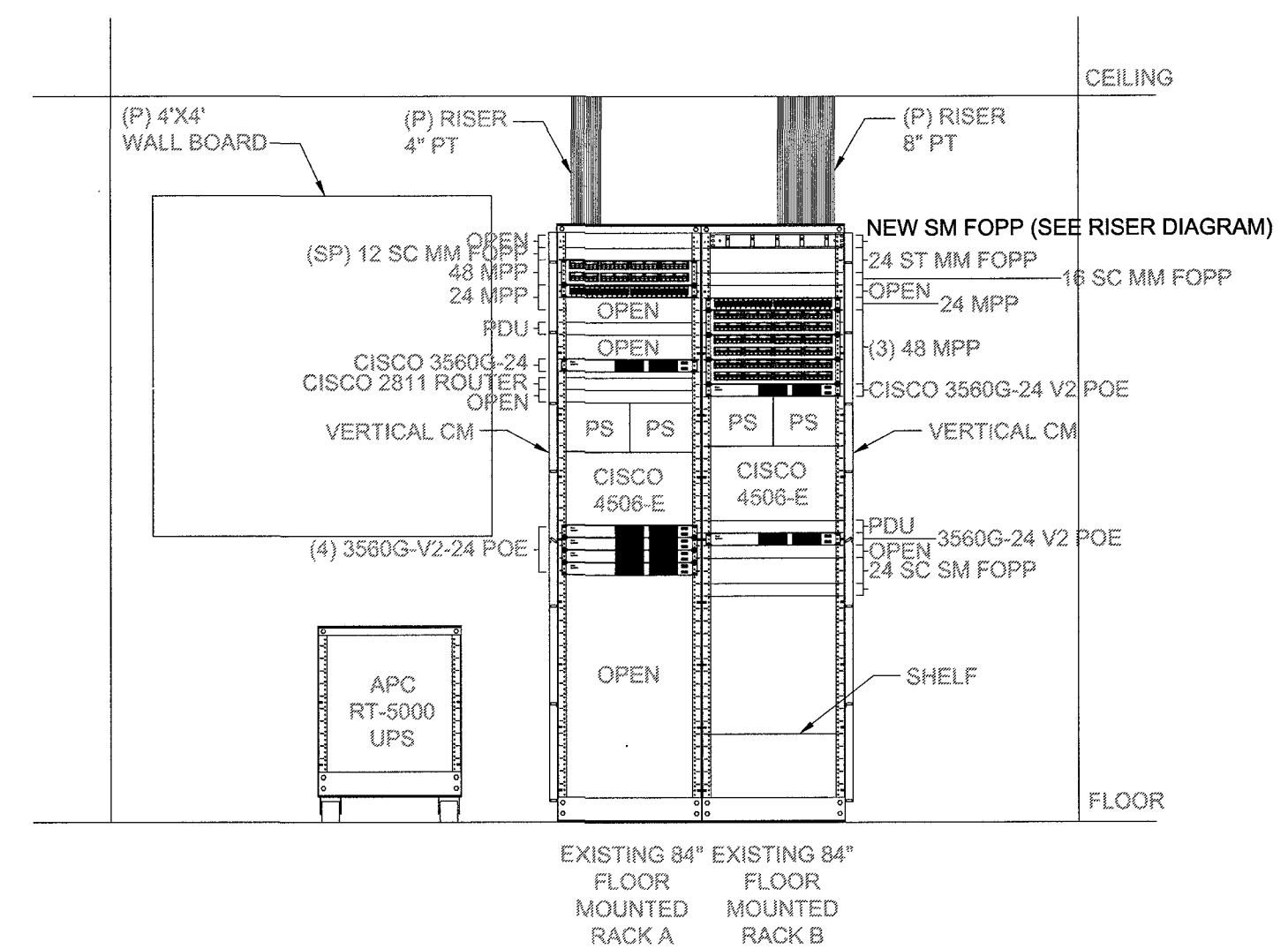
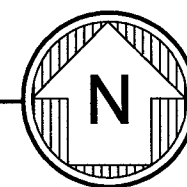
**GUILFORD HIGH SCHOOL  
NEW RACK ELEVATION - TR PB**

SCALE: 1/2" = 1'-0"



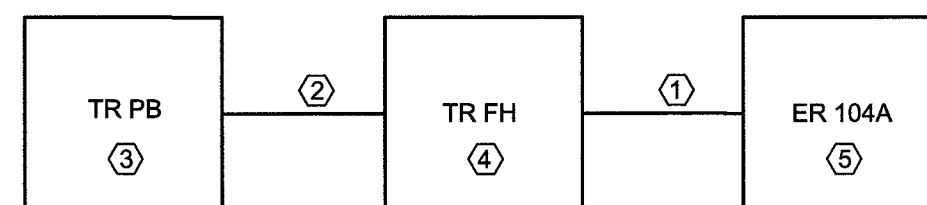
**GUILFORD HIGH SCHOOL  
ENLARGED PARTIAL PLAN - ER104A**

SCALE: 1/4" = 1'-0"



**GUILFORD HIGH SCHOOL  
EXISTING RACK ELEVATION - ER 104A**

SCALE: 1/2" = 1'-0"

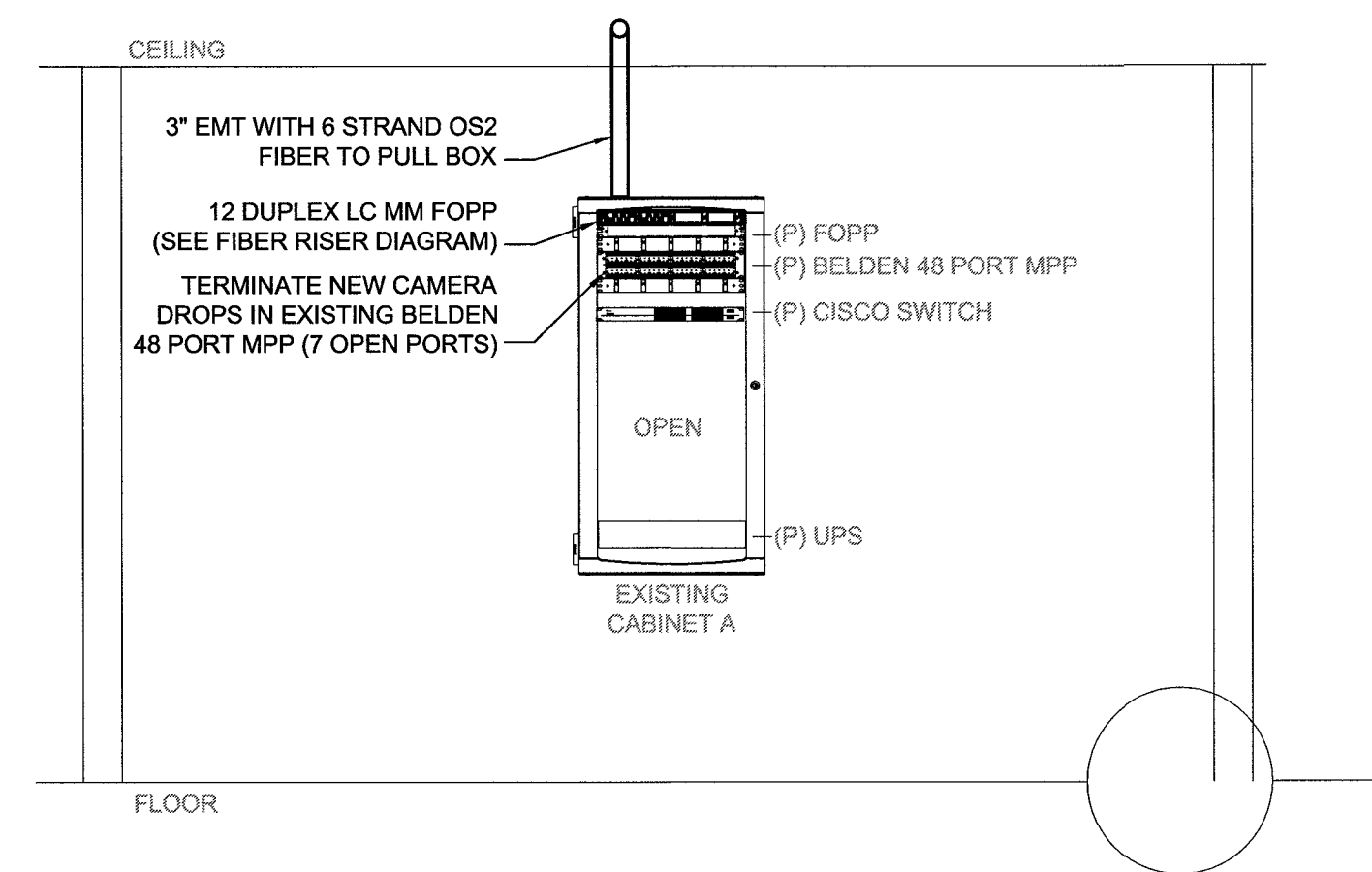


### FIBER RISER DIAGRAM (GUILFORD)

NO SCALE

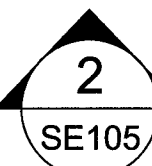
### NOTES:

- ① NEW INDOOR RATED 6 STRAND OS2 FIBER IN INNER DUCT ROUTED THROUGH EXISTING PATHWAYS; TERMINATE EXISTING FOPP WITH NEW LC TYPE CASSETTE IN TR FH AND NEW C TYPE FOPP IN ER104A.
- ② NEW OUTDOOR RATED 6 STRAND OS2 FIBER, TERMINATE AT NEW LC TYPE FOPP IN TR PB AND EXISTING FOPP WITH NEW LC TYPE CASSETTE IN TR FH.
- ③ NEW CABINET AND FOPP - SEE DETAIL 1 - SE105
- ④ NEW FOPP IN EXISTING CABINET - SEE DETAIL 2 - SE105
- ⑤ NEW FOPP IN EXISTING RACK - SEE DETAIL 3 - SE105


















































**GUILFORD HIGH SCHOOL  
NEW RACK ELEVATION - TR FH**

SCALE: 1/2" = 1'-0"



## ELECTRICAL SYMBOLS

	RECESSED CEILING FIXTURE (X)=WALL WASHER)	
	SURFACE OR PENDANT CEILING FIXTURE	
	BRACKET FIXTURE	
	RECESSED FLUORESCENT FIXTURE	
	SURFACE OR PENDANT FLUORESCENT FIXTURE	
	WALL FLUORESCENT FIXTURE (VERIFY HEIGHT)	
	BRACKET EXIT LIGHT	
	CEILING EXIT LIGHT	
	LIGHT TRACK	
	EXTERIOR POLE FIXTURE	
	BOLLARD FIXTURE	
	BATTERY EMERGENCY FIXTURE (R=REMOTE HEAD)	
	SINGLE POLE SWITCH	
	THREE WAY SWITCH	
	FOUR WAY SWITCH	
	SWITCH WITH PILOT LIGHT	
	KEY OPERATED SWITCH	
	OCCUPANCY SENSOR SWITCH (EQUAL TO LEVITON DECORA INFRARED ODS15-ID,UNO)	
	DIMMER CONTROL SWITCH	
	SWITCH WITH GROUNDED DUPLEX RECEPTACLE	
	REMOTE CONTROL SWITCH	
	GROUNDED DUPLEX RECEPTACLE	
	GROUNDED SINGLE RECEPTACLE	
	SPECIAL GROUNDED RECEPTACLE, SIZE AND TYPE AS SPECIFIED	
	GROUNDED FLUSH FLOOR RECEPTACLE	
	PLUGMOLD (VERIFY TYPE AND MOUNTING)	
	POWER, DATA AND TELEPHONE FLUSH FLOOR BOX WITH COVER.	
	PROVIDE EMPTY CONDUIT FOR DATA/TELEPHONE TO ABOVE SUSPENDED CEILING AS REQUIRED. SEE LOW VOLTAGE CONDUIT SIZING TABLE. (VERIFY)	
	OUTLET WITH FINAL CONNECTIONS TO EQUIPMENT. EQUIPMENT FURNISHED BY OTHERS (FBO), PROVIDE NECESSARY RECEPTACLE, SAFETY SWITCH, WIRING ETC. FOR COMPLETE INSTALLATION. VERIFY EXACT LOCATION AND HEIGHT BEFORE ROUGH-IN.	
	CEILING JUNCTION BOX	
	WALL JUNCTION BOX	
	SAFETY SWITCH (F=FUSED)	
	SURFACE ELECTRICAL PANELBOARD	
	RECESSED ELECTRICAL PANELBOARD	
	MOTOR STARTER (VFD=VARIABLE FREQUENCY DRIVE)	
	CONTROL RELAY (LETTER=FLOOR, NUMBER=NO. OF RELAY)	
	TRANSFORMER	
	CONDUIT RUN CONCEALED (OR PARTIALLY CONCEALED) IN CEILINGS OR WALLS	
	CONDUIT RUN CONCEALED IN OR UNDER FLOORS	
	CONDUIT RUN EXPOSED, IN STRAIGHT LINES	
	CONDUIT RUN UNDERGROUND	
	EMERGENCY WIRING, IN CONDUIT, CONCEALED HOMERUN TO PANEL, IN CONDUIT, CONCEALED	
	ARROWS INDICATE NUMBER OF CIRCUITS	
	TELEPHONE CONDUIT RUN ABOVE CEILINGS OR IN WALLS	
	TELEPHONE CONDUIT RUN IN OR UNDER FLOORS	
	TELEPHONE/DATA OUTLET BOX	
	SEE TELECOMM DETAILS FOR ADDITIONAL REQUIREMENTS.	

**NOTES:** ELECTRICAL OUTLET BOXES INSTALLED IN FIRE RATED ASSEMBLIES SHALL COMPLY WITH LATEST IBC, SECTION 712 (NOT LESS THAN 24" O.C.)



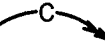


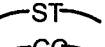
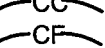
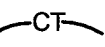
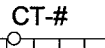
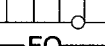
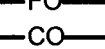

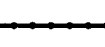

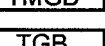
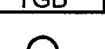

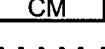
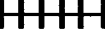


ELECTRICAL DEVICES INSTALLED IN ACCORDANCE WITH ADA SPECIFICATIONS. VERIFY HEIGHTS AND SPECIFIC DIMENSIONS.

ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTING CONTROLS AS TO COMPLY WITH LOCAL ENERGY CODE REQUIREMENTS. ENERGY MANGAGEMENT PRODUCTS SHALL BE EQUAL TO SENSORSWITCH. E.C. TO DETERMINE IF WALL OR CEILING OCCUPANCY DEVICE TYPE IS REQUIRED BASED ON PROJECT DESIGN AND IDEAL USE OF DEVICE. PROVIDE CONTROL DEVICE WITH SUITABLE FEATURES FOR INSTALLATION LOCATIONS OF THE CONTROL DEVICES REQUIRED FOR ENERGY CODE COMPLIANCE.

## ELECTRICAL ABBREVIATIONS

AC	ABOVE COUNTER	GFI	GROUND FAULT INTERRUPTER
AFF	ABOVE FINISHED FLOOR	HP	HORSEPOWER
ASC	ABOVE SUSPENDED CEILING	INC	INCANDESCENT
C	CONDUIT	IWS	IN WALL SPACE
CF	CARPET FLANGE	JB	JUNCTION BOX
CTC	CLOSE TO CEILING	KW	KILOWATTS
CTF	CLOSE TO FLOOR	LIG	LIGHTING
CTW	CLOSE TO WALL	MAX	MAXIMUM
DSB	DIMMER SWITCH BOARD	MFG	MANUFACTURER
E	EMERGENCY	MIN	MINIMUM
EBBC	ELECTRIC BASEBOARD CONVECTOR	MOB	MOTOR OUTLET BOX
EDH	ELECTRIC DUCT HEATER	MTD	MOUNTED
EMC	ELECTRIC MOTORIZED CONVECTOR	MV	MERCURY VAPOR
ESUH	ELECTRIC SUSPENDED UNIT HEATER	NEC	NATIONAL ELECTRICAL CODE
EW	ELECTRIC WATER COOLER	NL	NIGHT LIGHT
EW	ELECTRIC WATER HEATER	OS	OCCUPANCY SENSING DEVICE
FAAP	FIRE ALARM ANNUNCIATOR PANEL	PH	PHASE (Ø)
FACP	FIRE ALARM CONTROL PANEL	PNL	PANEL
FBO	FURNISHED BY OTHERS	SW	SWITCH
FL	FLUORESCENT	TFA	TO FLOOR ABOVE
FFA	FROM FLOOR ABOVE	TFB	TO FLOOR BELOW
FFB	FROM FLOOR BELOW	TTO	TELEPHONE TERMINAL CABINET
FLA	FULL LOAD AMPS	UNO	UNLESS NOTED OTHERWISE
		V	VOLTS
		W	WIRE
		WP	WEATHER PROOF

## TELECOMMUNICATIONS SYMBOLS

	PULL BOX (SIZE AS INDICATED)	
	SURFACE TELECOMMUNICATIONS PANELBOARD	
	CONDUIT RUN CONCEALED (OR PARTIALLY CONCEALED) IN CEILINGS OR WALLS	
	CONDUIT RUN CONCEALED IN OR UNDER FLOORS	
	CABLE IN SURFACE RACEWAY RUN EXPOSED	
	CONDUIT TO CABLE TRAY CONDUIT RUN EXPOSED	
	CONDUIT RUN IN/UNDER FLOOR, CONCEALED	
	CONDUIT RUN TO CABLE TRAY, CONCEALED	
	CABLE TRAY (WIDTH IN INCHES AS INDICATED), 4" DEEP	
	LADDER RACK (WIDTH IN INCHES AS INDICATED)	
	FIBER OPTIC BACKBONE CABLE	
	COPPER BACKBONE CABLE	
	HORIZONTAL COPPER DISTRIBUTION CABLE	
	INTERIOR PATHWAY - J HOOK OR RING RUN ABOVE CEILING	
	TELECOMMUNICATIONS MAIN GROUND BAR	
	TELECOMMUNICATIONS GROUND BAR	
	VERTICAL SLEEVE (SIZE AS INDICATED)	
	CABLE MANAGER	
	INSULATION DISPLACEMENT CONNECTOR (110 VOICE BLOCK)	
	180 DEGREE POLE MOUNTED IP VIDEO SURVEILLANCE CAMERA (FURNISHED BY OWNER-FBO AND INSTALLED BY CONTRACTOR.)	
	360 DEGREE POLE MOUNTED 360 IP VIDEO SURVEILLANCE CAMERA (FURNISHED BY OWNER-FBO AND INSTALLED BY CONTRACTOR.)	
<b>NOTES:</b>	TELECOMMUNICATIONS OUTLET BOXES INSTALLED IN FIRE RATED ASSEMBLIES SHALL COMPLY WITH BOCA 709.8.3 (NOT LESS THAN 24" O.C.)	
	ELECTRICAL DEVICES INSTALLED IN ACCORDANCE WITH ADA SPECIFICATIONS. VERIFY HEIGHTS AND SPECIFY DIMENSIONS.	

## TELECOMMUNICATIONS ABBREVIATIONS

802.1P	IEEE STANDARD FOR LINK LAYER PRIORITIZATION
AC	ABOVE COUNTER
ACL	ACCESS CONTROL LIST
AFF	ABOVE FINISHED FLOOR
AP	ACCESS POINT (THIN)
ASC	ABOVE SUSPENDED CEILING
BEP	BUILDING ENTRANCE PROTECTOR
C	CONDUIT
CA	CABLE
CM	CABLE MANAGEMENT
CPB	CONDUIT TO PULL BOX
CT	CABLE TRAY
CO	COPPER BACKBONE CABLE
CWO	COORDINATE WITH OWNER
DD	DISTRIBUTION DUCT
ER	EQUIPMENT ROOM (MDF)
FBO	FURNISHED BY OWNER
FD	FEEDER DUCT
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
FO	FIBER OPTIC
FOPP	FIBER OPTIC PATCH PANEL
FW	FIREWALL
IDF	INTERMEDIATE DISTRIBUTION FACILITY-TELECOMMUNICATIONS ROOM
LC	"LC TYPE" FIBER OPTIC CONNECTOR
LR	LADDER RACK
MDF	MAIN DISTRIBUTION FACILITY-EQUIPMENT ROOM
MPP	MODULAR PATCH PANEL, CATEGORY 6
MUTOA	MULTI-USER TELECOMMUNICATIONS OULET ASSEMBLY
MM	MULTIMODE FIBER
PB	PULL BOX
POE	POWER OVER ETHERNET
PT	POKE THROUGH
RU	RACK UNIT
SM	SINGLEMODE FIBER
SC	"SC TYPE" FIBER OPTIC CONNECTOR
SF	SURFACE TO FLOOR
SL	SLEEVE
SP	SERVICE PROVIDER
SR	SURFACE RACEWAY (SIZED AT MAX 50% FILL)
ST	"ST TYPE" FIBER OPTIC CONNECTOR
TC	TELECOMMUNICATIONS CONTRACTOR
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
TR	TELECOMMUNICATIONS ROOM (IDF)
UPS	UNIVERSAL POWER SUPPLY
VIF	VERIFY IN FIELD
VLAN	VIRTUAL LOCAL AREA NETWORK
W	WALL JACK
WLAN	WIRELESS LOCAL AREA NETWORK

## GENERAL NOTES APPLY TO ALL SHEETS:

SEE DETAILS AND SCHEDULES ON DRAWINGS AND SPECIFICATIONS FOR MEANING OF ABBREVIATIONS AND ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL, AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, BEAMS, DOOR SWINGS, WINDOWS, COORDINATION, ADDITIONAL INFORMATION, ETC. AND REPORT ANY DESCREPANCIES, CONFLICTS, ETC. TO ARCHITECT PRIOR TO SUBMITTING BID.

ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ETC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S WIRING DIAGRAMS AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH-IN OF CONDUIT AND WIRING TO AVOID CONFLICTS.

CONTRACTOR SHALL VERIFY FINAL LOCATIONS AND CEILING TYPES FOR ALL ELECTRICAL EQUIPMENT WITH ARCHITECTURAL REFLECTED CEILING PLAN AND ALL TRADES BEFORE ORDERING OR ROUGH-IN OF EQUIPMENT TO AVOID CONFLICTS.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING, INCLUDING CORE DRILLING, SAW CUTTING, ETC., AS REQUIRED TO ACCOMMODATE HIS WORK. CUTTING AND PATCHING AND PAYMENT OF SAID WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR REQUIRING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE APPROPRIATE ELECTRICAL CONTRACTOR TO GIVE QUANTITIES OF PATCHING REQUIREMENTS TO A GENERAL CONTRACTOR.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, LIGHT FIXTURES, DIFFUSERS, DUCTWORK, PIPING, CONDUIT, ETC., AS REQUIRED FOR THE INSTALLATION OF HIS WORK. REMOVAL, REPLACEMENT AND PAYMENT FOR MECHANICAL/PLUMBING ITEMS SHALL BE THE RESPONSIBILITY OF THE APPLICABLE ELECTRICAL CONTRACTOR. REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, ETC., SHALL BE THE RESPONSIBILITY OF CONTRACTOR MAKING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE APPROPRIATE ELECTRICAL CONTRACTOR TO GIVE QUANTITIES OF REMOVAL/REPLACEMENT REQUIREMENTS TO A GENERAL CONTRACTOR.

## ELECTRICAL COORDINATION NOTE

THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS ASSOCIATED WITH ALL OTHER TRADES THAT INVOLVE THE ELECTRICAL CONTRACTOR TO PROVIDE POWER WIRING FOR DEVICES AND SYSTEMS PROVIDED BY OTHER TRADES. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ASPECTS OF WORK RELATED TO THESE SYSTEMS AND DEVICES PRIOR TO SUBMITTING FINAL BID. INCLUDE ALL NECESSARY LABOR AND MATERIALS ASSOCIATED WITH OTHER TRADES AS REQUIRED FOR COMPLETE OPERATIONAL SYSTEMS THAT REQUIRE THE ELECTRICAL CONTRACTOR TO WIRE.

## GENERAL DEMOLITION NOTE:

FOR ALL WALLS, CEILINGS, FLOORS, ETC. REQUIRED FOR CONSTRUCTION DEMOLITION WORK OR NEW CONSTRUCTION WORK. INCLUDING, BUT NOT LIMITED TO ITEMS SHOWN: REMOVE (PX) AND/OR REMOVE AND RELOCATE (PXN-PN) ALL ELECTRICAL EQUIPMENT, DEVICES, BOXES, CONDUIT, WIRING, ETC., AS REQUIRED, FOR DEMOLITION OF PRESENT CONSTRUCTION AND TO AVOID INTERFERENCE WITH NEW CONSTRUCTION. (VERIFY BEFORE BIDDING TO INCLUDE ALL NECESSARY MATERIALS AND LABOR)

## LIGHTING FIXTURE SCHEDULE

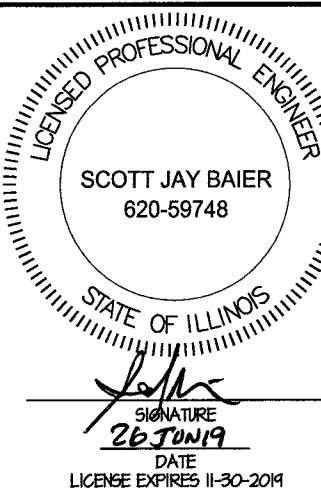
FIXTURE TYPE	LAMP SIZE AND TYPE	MOUNTING	MANUFACTURER'S NUMBER	REMARKS
F1	67 CRI L.E.D., 5000K 16,479 LUMENS 700mA DRIVER	25'-0" POLE ON CONCRETE BASE (SEE PLAN/ DETAIL)	LITHONIA NO. CSX1-60C-700-50K-T4M-SPA- COLOR TO MATCH EXISTING FIXTURES AND POLES POLE: SSS-25-5C-DM19AS (VERIFY)	25'-0" POLE WITH ONE (1) LED LIGHT FIXTURE, MULTI-VOLT DRIVER, AND HOUSING WITH TEXTURED FINISH. COLOR TO MATCH EXISTING FIXTURES AND POLES ON EAST SIDE OF SCHOOL. FIELD VERIFY PRIOR TO ORDERING. (FIXTURE WATTAGE = 134 WATTS)
NOTES:	PROVIDE UL APPROVED LUMINAIRE DISCONNECT FOR EACH LIGHT FIXTURE PER NEC REQUIREMENTS EFFECTIVE JANUARY 1, 2008. E.C. TO COMPLY AS REQUIRED. THE FIXTURE SCHEDULE DOES NOT NECESSARILY LIST ALL ACCESSORIES AND HARDWARE NECESSARY FOR THE COMPLETION OF INSTALLATION, NOR DOES IT DETAIL THE CEILING CONSTRUCTION TO BE ENCOUNTERED FOR THIS PROJECT. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY DETERMINE AND PROVIDE THE CORRECT COMPONENTS, ACCESSORIES AND HARDWARE AS REQUIRED FOR THE INSTALLATION. ALL ADDITIONAL HARDWARE FOR MOUNTING FIXTURES SHALL BE PROVIDED AT NO EXTRA COST.			

NEW PARKING LOT CAMERAS FOR:

RPS #205

AUBURN & GULFORD HIGH SCHOOLS

ROCKFORD, ILLINOIS



CHECKED BY:  
SDSE

DRAWN BY:  
SDS

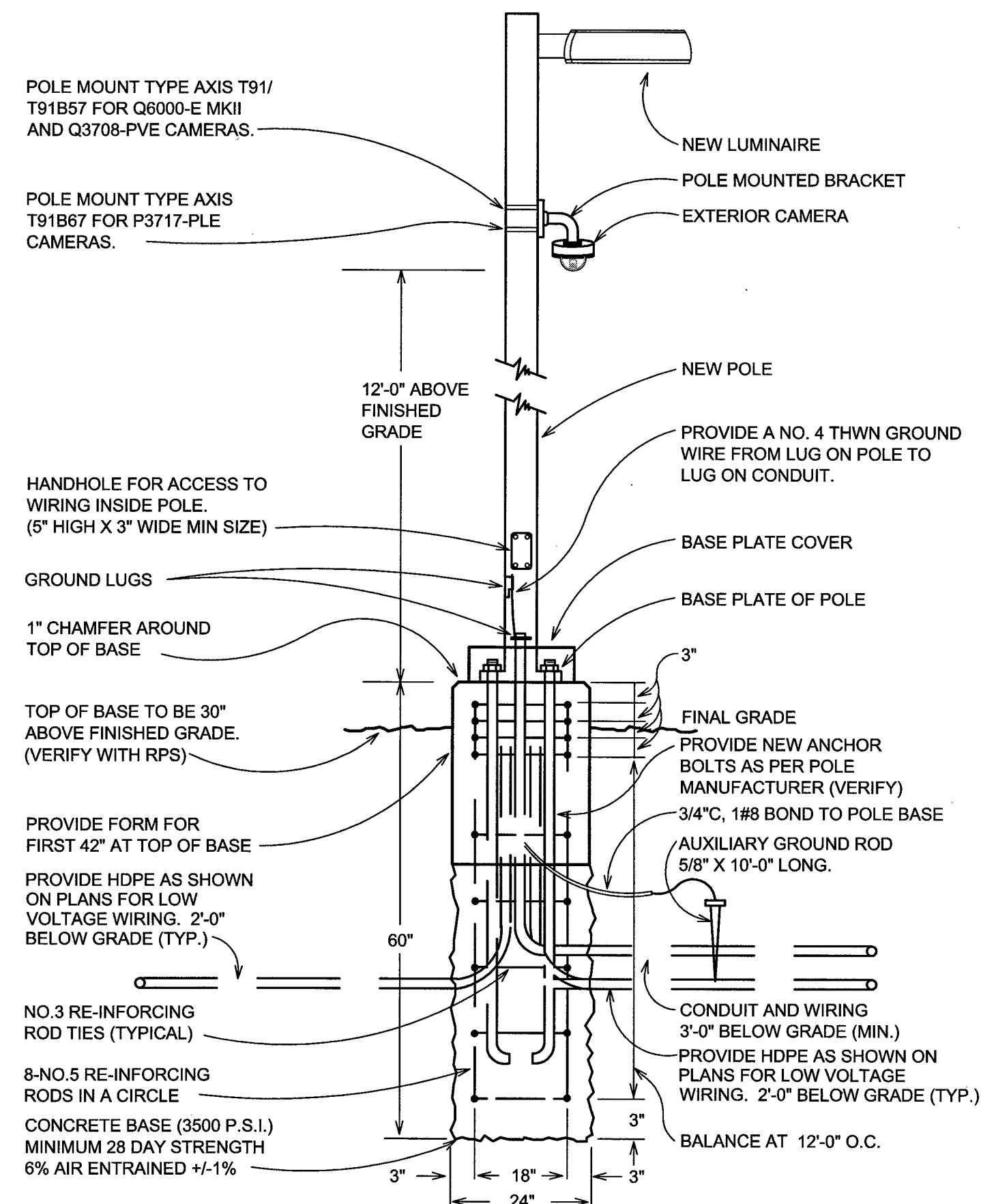
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ELECTRICAL SYMBOLS,  
NOTES AND  
ABBREVIATIONS

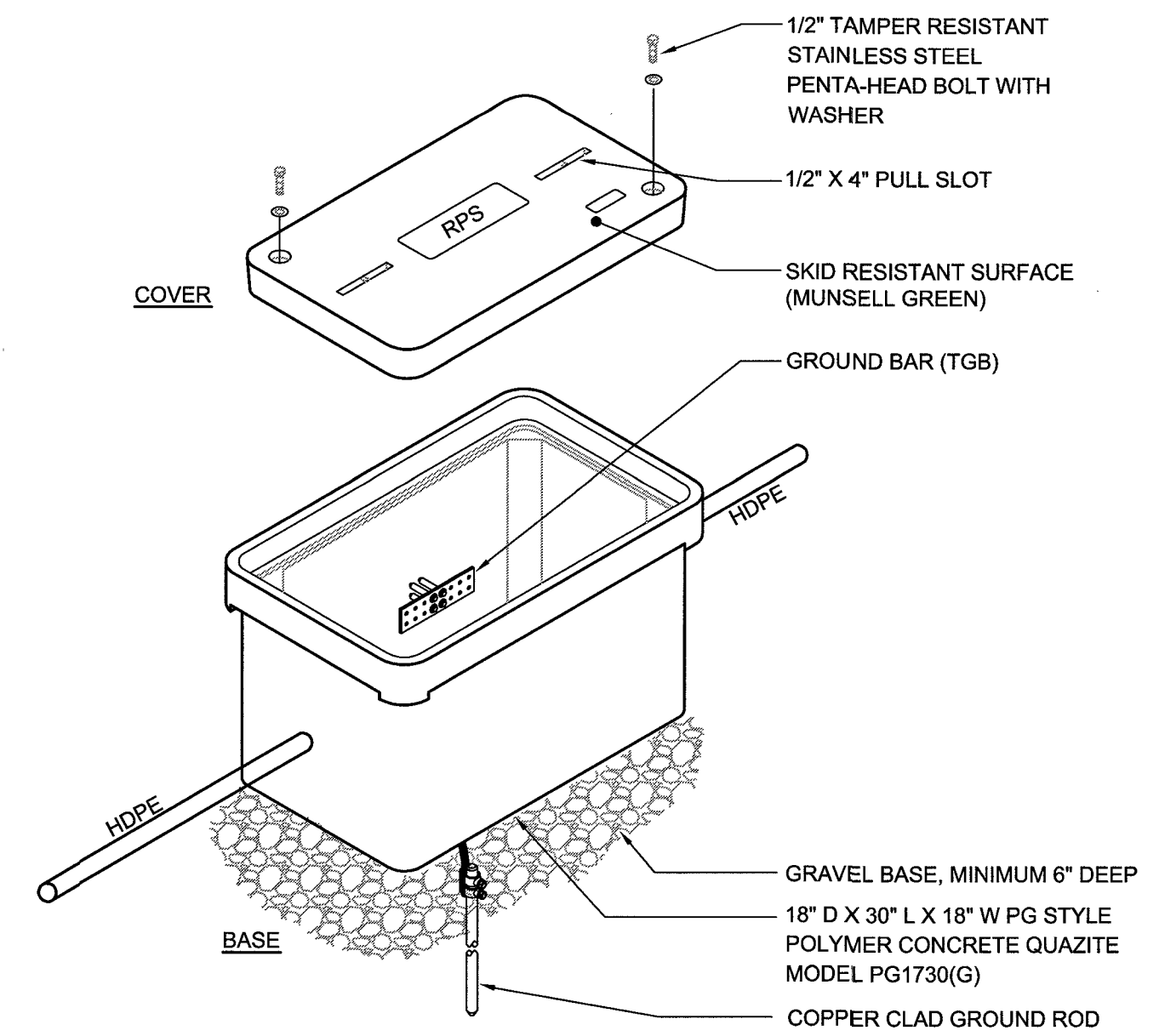
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SHEET NUMBER:

SE106

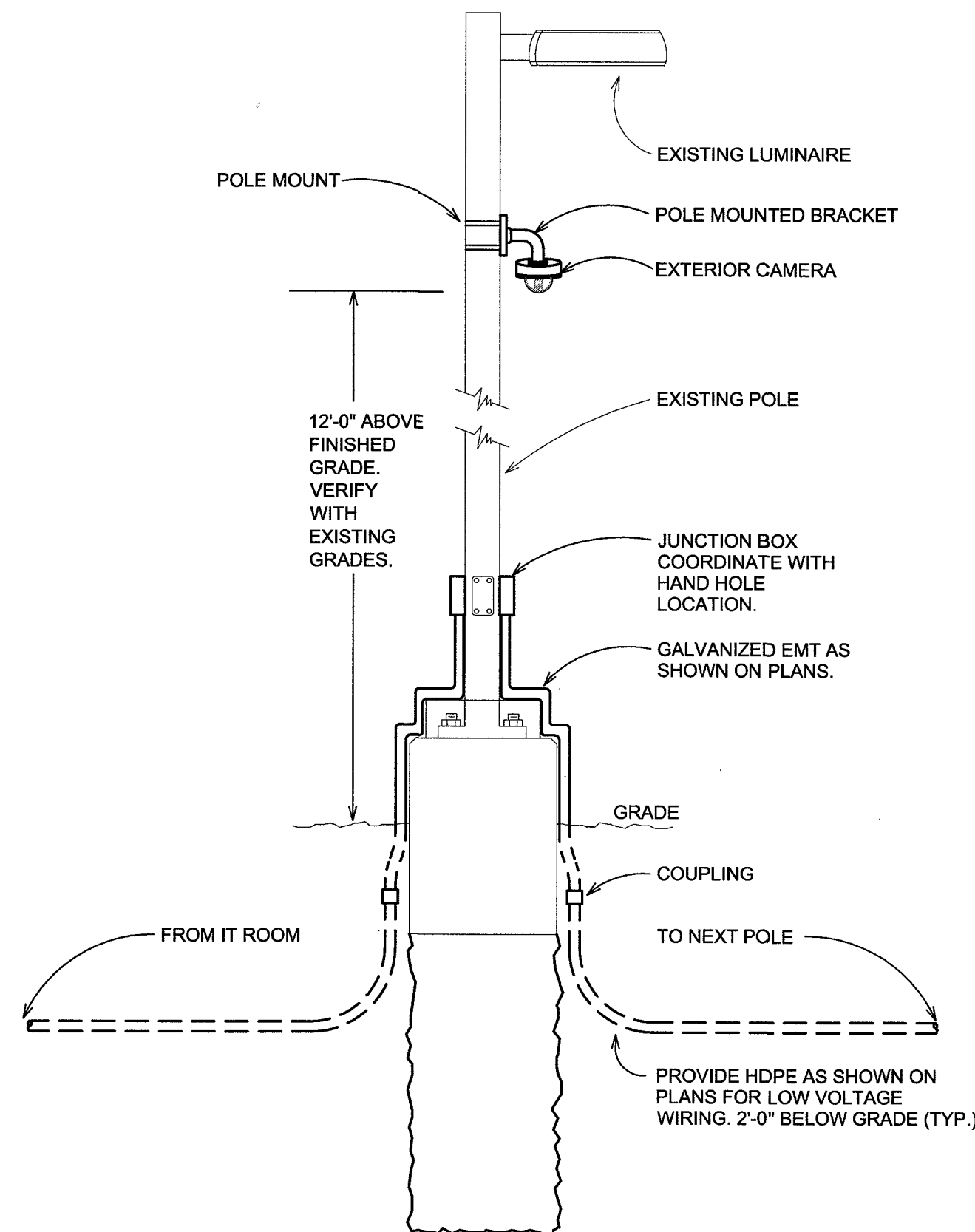


**DETAIL OF CONCRETE BASE FOR NEW POLE FIXTURES**  
NO SCALE

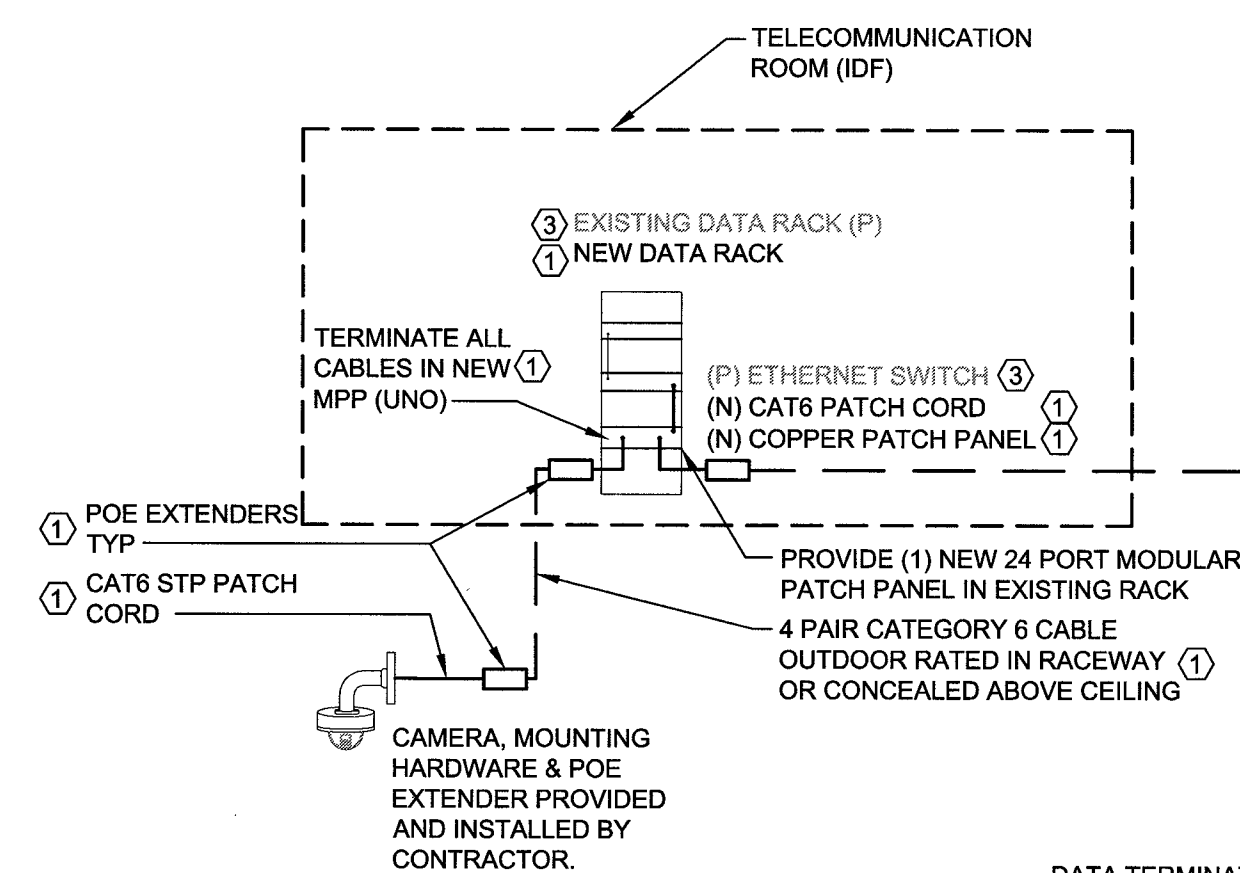


**TYPICAL QUAZITE PULL BOX DETAIL**  
NO SCALE

NOTE: PROVIDE 36" SLACK LOOP AT ALL PULL BOX LOCATIONS (TYPICAL).  
PROVIDE PULL STRING IN ALL CONDUITS ALONG WITH CABLES.



**DETAIL OF EXISTING POLES AND FIXTURES**  
NO SCALE



**DATA TERMINATION NOTES:**

- ① BY CONTRACTOR
- ② FURNISHED BY CONTRACTOR, INSTALLED BY OWNER.
- ③ BY OWNER.

**DATA TERMINATION (TYPICAL)**  
NO SCALE



# DIVISION 26 ELECTRICAL SPECIFICATIONS

## SECTION 262000 INTERIOR DISTRIBUTION SYSTEM

### PART 1 GENERAL

THE SUPPLEMENTARY GENERAL CONDITIONS ALONG WITH THESE SPECIFICATIONS AND THE ACCOMPANYING DRAWINGS GOVERN WORK UNDER THIS SECTION. IT IS THE INTENT OF THE CONTRACT DOCUMENTS TO PROVIDE FOR A COMPLETE OPERATING SYSTEM. THE OMISSION OF REFERENCE TO MINOR SYSTEM COMPONENTS WHICH ARE REASONABLY REQUIRED FOR THE PROPER FUNCTIONING AND/OR SAFE OPERATION OF THE SYSTEM SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING SAME AT NO ADDITIONAL COST TO THE OWNER. IT IS THE FURTHER INTENT THAT THE SYSTEM SHALL BE TURNED OVER TO THE OWNER IN A FUNCTIONAL AND OPERATING CONDITION. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE ELECTRICAL SYSTEM INCLUDING, BUT NOT LIMITED TO, SERVICE, LIGHTING, POWER, DEVICES, PANELS, CIRCUIT BREAKERS, CONDUIT AND WIRING. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND PAY FOR TEMPORARY AND NEW SERVICE, IF APPLICABLE TO THIS PROJECT. (VERIFY BEFORE BIDDING TO INCLUDE ALL WORK AS REQUIRED). THE WORK SHALL BE IN ACCORDANCE WITH THE REFERENCES LISTED BELOW AND ALL LOCAL CODES, LAWS, ORDINANCES AND STATE REGULATIONS WHICH GOVERN THE INSTALLATION.

### 1.1 REFERENCES

THE PUBLICATIONS LISTED BELOW FORM A PART OF THIS SPECIFICATION TO THE EXTENT REFERENCED. THE PUBLICATIONS ARE REFERRED TO WITHIN THE TEXT BY THE BASIC DESIGNATION ONLY.	
ASTM D 709	(2016) LAMINATED THERMOSETTING MATERIALS
EIA 480	(1981) TOGGLE SWITCHES
IEEE STD5 DICTONARY	(2009) IEEE STANDARDS DICTIONARY: GLOSSARY OF TERMS & DEFINITIONS
ICC/ANSI A117.1	(2009) ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
ICC	(2012) INTERNATIONAL ENERGY CONSERVATION CODE
ANSI Z535.1	(2006, R 2011) AMERICAN NATIONAL STANDARD FOR SAFETY--COLOR CODE
ANSINEMA FB 1	(2014) STANDARD FOR FITTINGS, CAST METAL BOXES, AND CONDUIT
ANSINEMA OS 1	BOXES FOR CONDUIT, ELECTRICAL METALLIC TUBING, AND CABLE
ANSINEMA OS 2	(2013) SHEET-STEEL OUTLET BOXES, DEVICE BOXES, COVERS, AND BOX SUPPORTS
	(2013) NONMETALLIC OUTLET BOXES, DEVICE BOXES, COVERS, AND BOX SUPPORTS
NEMA 250	(2014) ENCLOSURES FOR ELECTRICAL EQUIPMENT (1000 VOLTS MAXIMUM)
NEMA KS 1	(2013) ENCLOSED AND MISCELLANEOUS DISTRIBUTION EQUIPMENT SWITCHES (600 V MAXIMUM)
NEMA PB 1	(2011) PANELBOARDS
NEMA RN 1	(2005, R 2013) POLYVINYL-CHLORIDE (PVC) EXTERNALLY COATED GALVANIZED RIGID STEEL CONDUIT AND INTERMEDIATE METAL CONDUIT
NEMA TC 2	(2013) STANDARD FOR ELECTRICAL POLYVINYL CHLORIDE (PVC) CONDUIT
NEMA TC 3	(2015) STANDARD FOR POLYVINYL CHLORIDE (PVC) FITTINGS FOR USE WITH RIGID PVC CONDUIT AND TUBING
NEMA WD 1	(1999, R 2015) STANDARD FOR GENERAL COLOR REQUIREMENTS FOR WIRING DEVICES
NEMA WD 6	(2016) WIRING DEVICES DIMENSIONS SPECIFICATIONS
NFPA 70	(2017) NATIONAL ELECTRICAL CODE
NFPA 70E	(2015) STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE
UL 1	(2005; REPRINT JUL 2007) STANDARD FOR FLEXIBLE METAL CONDUIT
UL 1242	(2005; REPRINT DEC 2014) STANDARD FOR ELECTRICAL INTERMEDIATE METAL CONDUIT -- STEEL
UL 489	(2016) MOLDED-CASE CIRCUIT BREAKERS, MOLDED-CASE SWITCHES, AND CIRCUIT-BREAKER ENCLOSURES
UL 6	(2007; REPRINT NOV 2014) ELECTRICAL RIGID METAL CONDUIT-STEEL
UL 797	(2007; REPRINT DEC 2012) ELECTRICAL METALLIC TUBING -- STEEL
UL 870	(2016) STANDARD FOR WIREWAYS, AUXILIARY GUTTERS, AND ASSOCIATED FITTINGS

### 1.2 DEFINITIONS

- UNLESS OTHERWISE SPECIFIED OR INDICATED, ELECTRICAL AND ELECTRONICS TERMS USED IN THESE SPECIFICATIONS, AND ON THE DRAWINGS, SHALL BE AS DEFINED IN IEEE STD5 DICTONARY.
- THE TECHNICAL SECTIONS REFERRED TO HEREIN ARE THOSE SPECIFICATION SECTIONS THAT DESCRIBE PRODUCTS, INSTALLATION PROCEDURES, AND EQUIPMENT OPERATIONS AND THAT REFER TO THIS SECTION FOR DETAILED DESCRIPTION OF SUBMITTAL TYPES.
- VERTICAL ASSEMBLY: A VERTICAL ASSEMBLY IS A POLE, TOWER OR OTHER SUCH SUPPORT, MOUNTING HARDWARE, ARMS, BRACKETS AND THE LOAD. LOAD CAN BE A LUMINAIRE, SIREN, LOUDSPEAKER OR OTHER DEVICE. ALL COMPONENTS OF A VERTICAL ASSEMBLY WILL BE RATED BY THE MANUFACTURER TO WITHSTAND 135 MPH WIND LOADING.

### 1.3 SUBMITTALS

SUBMIT THE FOLLOWING IN ACCORDANCE WITH SECTION SUBMITTAL PROCEDURES:  
PRECONSTRUCTION SUBMITTALS (SHOP DRAWINGS): SUBMIT PRODUCT DATA FOR THE FOLLOWING: CONDUITS, RACEWAYS AND FITTINGS, WIRE AND CABLE, SPLICES AND CONNECTORS, SWITCHES, RECEPTACLES, OUTLETS, OUTLET BOXES, AND PULL BOXES, CIRCUIT BREAKERS, PANELBOARDS, LAMPS AND LIGHTING FIXTURES, AND DRY-TYPE DISTRIBUTION TRANSFORMERS. COORDINATE COLOR OF DEVICES AND COVERPLATES WITH ENGINEER/OWNER PRIOR SUBMITTING SHOP DRAWING SUBMITTALS FOR APPROVAL. CLOSEOUT SUBMITTALS (O&M INSTRUCTIONS): SUBMIT TEST REPORTS FOR THE FOLLOWING: FIRE ALARM TEST, LOW VOLTAGE CABLE TEST, CONTINUITY TEST, PHASE-ROTATION TESTS, INSULATION RESISTANCE TEST, SUBMIT MANUFACTURER'S INSTRUCTIONS, MANUFACTURER'S START-UP AND CHECK-OUT CHECKLISTS, SUBMIT STATE FIRE ALARM CERTIFICATION, AND PRE-ENERGIZATION CHECKLISTS.

### 1.4 GENERAL REQUIREMENTS

SUBMIT MATERIAL, EQUIPMENT, AND FIXTURE LISTS FOR THE FOLLOWING ITEMS SHOWING MANUFACTURER'S STYLE OR CATALOG NUMBERS, SPECIFICATION AND DRAWING REFERENCE NUMBERS, WARRANTY INFORMATION AND FABRICATION SITE.  
SUBMIT MANUFACTURER'S INSTRUCTIONS INCLUDING SPECIAL PROVISIONS REQUIRED TO INSTALL EQUIPMENT COMPONENTS AND SYSTEM PACKAGES. SPECIAL NOTICES SHALL DETAIL IMPEDANCES, HAZARDS AND SAFETY PRECAUTIONS.SUBMIT CERTIFICATION REQUIRED TO INSTALL EQUIPMENT COMPONENTS AND SYSTEM PACKAGES.

### 1.5 MANUFACTURER'S NAMEPLATE

EACH ITEM OF EQUIPMENT SHALL HAVE A NAMEPLATE BEARING THE MANUFACTURER'S NAME, ADDRESS, MODEL NUMBER, AND SERIAL NUMBER SECURELY AFFIXED IN A CONSPICUOUS PLACE; THE NAMEPLATE OF THE DISTRIBUTING AGENT WILL NOT BE ACCEPTABLE.

### 1.6 FIELD FABRICATED NAMEPLATES

ASTM D 709. PROVIDE LAMINATED PLASTIC NAMEPLATES FOR EACH EQUIPMENT ENCLOSURE, RELAY, SWITCH, AND DEVICE; AS SPECIFIED IN THE TECHNICAL SECTIONS OR AS INDICATED ON THE DRAWINGS. EACH NAMEPLATE INSCRIPTION SHALL IDENTIFY THE FUNCTION AND, WHEN APPLICABLE, THE POSITION. NAMEPLATES SHALL BE MELAMINE PLASTIC, 0.125 INCH THICK, WHITE WITH BLACK CENTER CORE. SURFACE SHALL BE MATTE FINISH. CORNERS SHALL BE SQUARE. ACCURATELY ALIGN LETTERING AND LOGO INTO THE CORE. MINIMUM SIZE OF NAMEPLATES SHALL BE ONE BY 2.5 INCHES. LETTERING SHALL BE A MINIMUM OF 0.25 INCH HIGH NORMAL BLOCK STYLE.

### 1.7 WARNING SIGNS

PROVIDE WARNING SIGNS FOR THE ENCLOSURES OF ELECTRICAL EQUIPMENT INCLUDING SUBSTATIONS, PAD-MOUNTED TRANSFORMERS, PAD-MOUNTED SWITCHES, GENERATORS, AND SWITCHGEAR HAVING A NOMINAL RATING EXCEEDING 600 VOLTS.

- WHEN THE ENCLOSURE INTEGRITY OF SUCH EQUIPMENT IS SPECIFIED TO BE IN ACCORDANCE WITH IEEE C57.12.28 OR IEEE C57.12.29, SUCH AS FOR PAD-MOUNTED TRANSFORMERS, PROVIDE SELF-ADHESIVE WARNING SIGNS ON THE OUTSIDE OF THE HIGH VOLTAGE COMPARTMENT DOOR(S). SIGN SHALL BE A DECAL AND HAVE NOMINAL DIMENSIONS OF 7 BY 10 INCHES WITH THE LEGEND "DANGER HIGH VOLTAGE" PRINTED IN TWO LINES OF NOMINAL 2 INCH HIGH LETTERS. THE WORD "DANGER" SHALL BE IN WHITE LETTERS ON A RED BACKGROUND AND THE WORDS "HIGH VOLTAGE" SHALL BE IN BLACK LETTERS ON A WHITE BACKGROUND. DECAL SHALL BE PANDUIT NO. PPS0710D72 OR APPROVED EQUAL.

### 1.8 VERIFICATION OF POINTS

BEFORE SUBMITTING THEIR BID, THE CONTRACTOR SHALL VISIT THE SITE AND CONTACT THE CITY AND ALL UTILITIES TO CAREFULLY VERIFY ALL EXPOSED, CONCEALED AND BURIED POINTS OF CONNECTIONS, AS TO LOCATIONS, SIZE, TYPE, DEPTH, OPERATING CHARACTERISTICS, ETC. INCLUDING BUT NOT LIMITED TO: PRESENT SITE CONDITIONS, PRESENT UTILITY COMPANY ELECTRICAL DISTRIBUTION SYSTEM, WORK ASSOCIATED WITH EQUIPMENT BY OTHERS, NEW CONNECTIONS TO PRESENT EQUIPMENT OR CONSTRUCTION, PRESENT EQUIPMENT TO BE REMOVED AND/OR RELOCATED. IF THE CONTRACTOR FINDS THAT PRESENT POINTS OF CONNECTION ARE INCORRECTLY SPECIFIED, THEY SHALL NOTIFY THE ENGINEER, IN WRITING, AT LEAST 7 CALENDAR DAYS BEFORE BIDS ARE TO BE SUBMITTED. THE ENGINEER WILL ISSUE AN ADDENDUM TO ADDRESS THE REVISED POINTS OF CONNECTION. IF THE CONTRACTOR FAILS TO NOTIFY THE ENGINEER, IN WRITING, AS OUTLINED ABOVE, IT WILL BE ASSUMED THEIR BID INCLUDES EVERYTHING REQUIRED TO PROVIDE CONNECTIONS AS THEY ACTUALLY EXIST, OR AS THEY WILL BE REQUIRED BY THE UTILITY OR AUTHORITY HAVING JURISDICTION WITHOUT INCREASE TO THE CONTRACT PRICE.

### 1.9 COORDINATION

CERTAIN MOTORS, EQUIPMENT, CONTROLS, ETC ARE PROVIDED BY THE HEATING, VENTILATION, PLUMBING AND/OR OTHER CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED MOTOR STARTERS, SAFETY SWITCHES, VARIABLE FREQUENCY DRIVES, CONTROLS, ETC AND COMPLETELY WIRE ALL EQUIPMENT PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND CODES. SEE SPECIFICATIONS AND DRAWINGS FOR ALL OTHER TRADES TO AVOID CONFLICTS OR DUPLICATING WORK TO BE PROVIDED BY OTHERS. (VERIFY PRIOR TO RUSH-IN).

BEFORE BIDDING, THE CONTRACTOR SHALL CAREFULLY CHECK ALL PLANS AND SPECIFICATIONS FOR EVERY TRADE AND SHALL INCLUDE IN THEIR BID ALL ASSOCIATED LECTRICAL WORK TO BE PROVIDED FOR THE PROJECT. BEFORE ANY WORK IS INSTALLED OR ANY EQUIPMENT IS PURCHASED, THE CONTRACTOR SHALL CAREFULLY CHECK PLANS AND SPECIFICATIONS FOR EVERY TRADE AS WELL AS THE JOB CONDITIONS. ANY LACK OF COORDINATION BETWEEN THE WORK OF THE EC AND THEIR SUBS, SHALL BE

REPORTED IMMEDIATELY TO THE ENGINEER. THE OWNER WILL WORK OUT CONFLICTS AND ADJUSTMENTS IN CONTRACT PRICE, IF WARRANTED. CHANGES IN EQUIPMENT SHALL BE INCORPORATED IN THE SHOP DRAWINGS.

IF CONFLICTS ARISE DURING THE CONSTRUCTION PERIOD, THEY SHALL BE REPORTED TO THE ENGINEER, IN WRITING, AND THEY SHALL BE WORKED OUT BETWEEN THE ENGINEER, GENERAL CONTRACTOR, AND OTHER ASSOCIATED TRADE AT NO INCREASE TO THE CONTRACT PRICE.

### PART 2 PRODUCTS

#### 2.1 MATERIALS

MATERIALS AND EQUIPMENT TO BE PROVIDED SHALL BE NEW, UL LISTED FOR THE REQUIRED LOCATION/USE, AND BEAR THE MANUFACTURER'S NAME, MODEL NUMBER, AND OTHER IDENTIFICATION MARKINGS. THE STANDARD CATALOGUED PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE MANUFACTURE OF THE PRODUCTS, MATERIALS AND EQUIPMENT SHALL BE OF THE SAME MANUFACTURER THROUGHOUT THE PROJECT TO PROVIDE A UNIFORM APPEARANCE, OPERATION AND MAINTENANCE.

2.1.1 **RIGID STEEL CONDUIT:** RIGID STEEL CONDUIT SHALL COMPLY WITH UL 6 AND BE GALVANIZED BY THE HOT-DIP PROCESS. RIGID STEEL CONDUIT SHALL BE POLYVINYLCHLORIDE (PVC) COATED IN ACCORDANCE WITH NEMA RN 1, WHERE UNDERGROUND AND IN CORROSIVE AREAS. OR MUST BE PAINTED WITH BITUMASTIC. FITTINGS FOR RIGID STEEL CONDUIT SHALL BE THREADED. GASKETS SHALL BE SOLID. CONDUIT FITTINGS WITH BLANK COVERS SHALL HAVE GASKETS, EXCEPT IN CLEAN, DRY AREAS OR AT THE LOWEST POINT OF A CONDUIT RUN WHERE DRAINAGE IS REQUIRED. COVERS SHALL HAVE CAPTIVE SCREWS AND BE ACCESSIBLE AFTER THE WORK HAS BEEN COMPLETED.

2.1.2 **ELECTRICAL METALLIC TUBING (EMT):** EMT SHALL BE IN ACCORDANCE WITH UL 797 AND BE ZINC COATED STEEL. COUPLINGS AND CONNECTORS SHALL BE ZINC-COATED, RAINTIGHT, GLAND COMPRESSION WITH INSULATION THROAT. CRIMP, SPRING, OR SETSCREW TYPE FITTINGS ARE NOT ACCEPTABLE.

2.1.3 **FLEXIBLE METALLIC CONDUIT:** FLEXIBLE METALLIC CONDUIT SHALL COMPLY WITH UL 1 AND BE GALVANIZED STEEL. FITTINGS FOR FLEXIBLE METALLIC CONDUIT SHALL BE SPECIFICALLY DESIGNED FOR SUCH CONDUIT. PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT WITH A PROTECTIVE JACKET OF PVC EXTRUDED OVER A FLEXIBLE INTERLOCKED GALVANIZED STEEL CORE TO PROTECT WIRING AGAINST MOISTURE, OIL, CHEMICALS, AND CORROSIVE FUMES. SPECIFICALLY DESIGN FITTINGS FOR LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT.

2.1.4 **INTERMEDIATE METAL CONDUIT:** INTERMEDIATE METAL CONDUIT SHALL COMPLY WITH UL 1242 AND BE GALVANIZED.

2.1.5 **RIGID NONMETALLIC CONDUIT:** RIGID NONMETALLIC CONDUIT SHALL COMPLY WITH NEMA TC 2 AND NEMA TC 3 WITH WALL THICKNESS NOT LESS THAN SCHEDULE 40.

2.1.6 **WIREWAYS AND AUXILIARY GUTTERS:** WIREWAY AND AUXILIARY GUTTERS SHALL BE A MINIMUM 4-BY 4 INCH TRADE SIZE CONFORMING TO UL 870.

2.1.7 **SURFACE RACEWAYS AND ASSEMBLIES:** SURFACE METAL RACEWAYS AND MULTI-OUTLET ASSEMBLIES SHALL CONFORM TO NFPA 70. RECEPTACLES SHALL CONFORM TO NEMA WD 1, TYPE 5-20R.

#### 2.2 WIRE AND CABLE

CONDUCTORS INSTALLED IN CONDUIT ABOVE GROUND SHALL BE COPPER 800-VOLT TYPE THWN-2. CONDUCTORS INSTALLED UNDERGROUND SHALL BE TYPE XHHW. ALL CONDUCTORS AWG NO. 8 AND LARGER, SHALL BE STRANDED. ALL CONDUCTORS SMALLER THAN AWG NO. 8 SHALL BE SOLID. FLEXIBLE CABLE SHALL BE TYPE SO AND CONTAIN A GROUNDING CONDUCTOR WITH GREEN INSULATION. CONDUCTORS INSTALLED IN PLENUMS SHALL BE MARKED PLENUM RATED.

#### 2.3 SPLICES AND CONNECTORS

MAKE ALL SPLICES IN AWG NO. 8 AND SMALLER WITH APPROVED INSULATED ELECTRICAL TYPE OR INDENTOR CRIMP-TYPE CONNECTORS AND COMPRESSION TOOLS. MAKE ALL SPLICES IN AWG NO. 8 AND LARGER WITH BOLTED CLAMP-TYPE CONNECTORS. JOINTS SHALL BE WRAPPED WITH AN INSULATING TAPE THAT HAS AN INSULATION AND TEMPERATURE RATING EQUIVALENT TO THAT OF THE CONDUCTOR.

#### 2.4 SWITCHES

ALL WIRING DEVICES SHALL BE HUBBELL, P & S, BYRANT, G.E. OR LEVITON UNDERWRITER'S APPROVED, NEC RATED AND SPECIFICATION GRADE

2.4.1 **SAFETY SWITCHES:** SAFETY SWITCHES SHALL COMPLY WITH NEMA KS 1, AND BE THE HEAVY-DUTY TYPE WITH ENCLOSURE, VOLTAGE, CURRENT RATING, NUMBER OF POLES, AND FUSING AS INDICATED. MAKE PROVISIONS TO LOCK THE HANDLE IN THE "OFF" POSITION, BUT THE SWITCH SHALL NOT BE CAPABLE OF BEING LOCKED IN THE "ON" POSITION. PROVIDE SWITCHES OF THE QUICK-MAKE, QUICK-BREAK TYPE. APPROVE TERMINAL LUGS FOR USE WITH COPPER CONDUCTORS. SAFETY COLOR CODING FOR IDENTIFICATION OF SAFETY SWITCHES SHALL CONFORM TO ANSI Z535.1.

2.4.2 **TOGGLE SWITCHES:** TOGGLE SWITCHES SHALL COMPLY WITH EIA 480, CONTROL INCANDESCENT, MERCURY, AND FLUORESCENT LIGHTING FIXTURES AND BE OF THE HEAVY DUTY, GENERAL PURPOSE, NONINTERCHANGEABLE FLUSH-TYPE. TOGGLE SWITCHES SHALL BE COMMERCIAL GRADE TOGGLE TYPE, SINGLE, DOUBLE-POLE, THREE/FOUR-WAY TWO-POSITION DEVICES RATED 20 AMPERES AT 120 OR 277 VOLTS, 60 HERTZ ALTERNATING CURRENT (AC) ONLY. ALL TOGGLE SWITCHES SHALL BE PRODUCTS OF THE SAME MANUFACTURER.

#### 2.5 RECEPTACLES

RECEPTACLES SHALL BE COMMERCIAL GRADE, 20A, 125 VAC, 2-POLE, 3-WIRE DUPLEX CONFORMING TO NEMA WD 6, NEMA 5-20R, WATER RESISTANT.

#### 2.6 OUTLETS, OUTLET BOXES, AND PULL BOXES

OUTLET BOXES FOR USE WITH CONDUIT SYSTEMS SHALL BE IN ACCORDANCE WITH ANSINEMA FB 1 AND ANSINEMA OS 1 AND BE NOT LESS THAN 1-1/2 INCHES DEEP. FURNISH ALL PULL AND JUNCTION BOXES WITH SCREW-FASTENED COVERS, STAINLESS STEEL NEMA 4X AT OUTDOOR LOCATIONS.

#### 2.7 CIRCUIT BREAKERS

CIRCUIT-BREAKER INTERRUPTING RATING SHALL BE NOT LESS THAN THOSE INDICATED AND IN NO EVENT LESS THAN THE MAXIMUM AVAILABLE FAULT CURRENT AT THE LOCATION. MULTIPOLE CIRCUIT BREAKERS SHALL BE THE COMMON-TRIP TYPE WITH A SINGLE HANDLE. MOLDED CASE CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE CONFORMING TO UL 489.

#### 2.8 LAMPS AND LIGHTING FIXTURES

MANUFACTURERS AND CATALOG NUMBERS SHOWN ARE INTENDED TO RESTRICT THE SELECTION TO FIXTURES OF THE PARTICULAR MANUFACTURER UNLESS STATED AS "OR EQUAL" IN THE SCHEDULE. FIXTURES WITH THE SAME SALIENT FEATURES AND EQUIVALENT LIGHT DISTRIBUTION AND BRIGHTNESS CHARACTERISTICS, OF EQUAL FINISH AND QUALITY, MAY BE ACCEPTABLE. PROVIDE LAMPS OF THE PROPER TYPE AND WATTAGE FOR EACH FIXTURE. BALLASTS SHALL BE HIGH POWER FACTOR AND BE ENERGY EFFICIENT.

LED LUMINAIRES MUST BE NEMA SSL 1, UL 8750 LISTED. LED DRIVERS MUST BE ELECTRONIC, UL CLASS 1, CONSTANT-CURRENT TYPE AND COMPLY WITH THE FOLLOWING REQUIREMENTS:

- POWER FACTOR (PF) GREATER THAN OR EQUAL TO 0.9.
- CURRENT DRAW TOTAL HARMONIC DISTORTION (THD) OF LESS THAN 20 PERCENT.
- CLASS A SOUND RATING.
- OPERABLE AT INPUT VOLTAGE OF 120-277 VOLTS AT 60 HERTZ.
- MINIMUM 10 YEAR MANUFACTURER'S WARRANTY.
- ROHS COMPLIANT.
- INTEGRAL THERMAL PROTECTION THAT REDUCES OR ELIMINATES THE OUTPUT POWER IF CASE TEMPERATURE EXCEEDS A VALUE DETRIMENTAL TO THE DRIVER.
- UL LISTED FOR DRY OR DAMP LOCATIONS TYPICAL OF INTERIOR INSTALLATIONS.

FULLY-DIMMABLE USING 0-10V CONTROL, OR AS INDICATED IN LUMINAIRE SCHEDULE.

### PART 3 EXECUTION

ALL WORK SHALL BE PERFORMED BY TRAINED, EXPERIENCED PERSONNEL SKILLED IN THEIR VARIOUS CRAFTS, UNDER THE FULL TIME SUPERVISION OF AN APPROVED ENGINEER OR FOREMAN.

#### 3.1 CONDUITS, RACEWAYS AND FITTINGS

PROVIDE A COMPLETE RACEWAY AND WIRING INSTALLATION, PERMANENTLY AND EFFECTIVELY GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES. CONDUIT RUNS BETWEEN OUTLET AND OUTLET, BETWEEN FITTING AND FITTING, OR BETWEEN OUTLET AND

FITTING SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF THREE 90-DEGREE BENDS, INCLUDING THOSE

BENDS LOCATED IMMEDIATELY AT THE OUTLET OR FITTING. WIRING OF EVERY KIND MUST BE INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE OR AS APPROVED BY THE ENGINEER. RACEWAYS SHALL BE GALVANIZED STEEL, UNLESS REQUIRED OTHERWISE OR AS NOTED AND SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, UNLESS NOTED OTHERWISE. ALL RACEWAYS SHALL BE APPROVED FOR THE INSTALLATION. DO NOT INSTALL CRUSHED OR DEFORMED CONDUIT. AVOID TRAPPED CONDUIT RUNS WHERE POSSIBLE. PULL OR JUNCTION BOXES SHALL BE PROVIDED AS REQUIRED TO FACILITATE INSTALLATION OF RACEWAYS AND WIRING. TAKE CARE TO PREVENT THE LODGMENT OF FOREIGN MATERIAL IN THE CONDUIT, BOXES, FITTINGS, AND EQUIPMENT DURING THE COURSE OF CONSTRUCTION. CLEAR ANY CLOGGED CONDUIT OF OBSTRUCTIONS OR BE REPLACED, CONDUIT AND RACEWAY RUNS CONCEALED IN OR BEHIND WALLS, ABOVE CEILINGS, OR EXPOSED ON WALLS AND CEILINGS 5 FEET OR MORE ABOVE FINISHED FLOORS AND NOT SUBJECT TO MECHANICAL DAMAGE SHALL BE ELECTRICAL METALLIC TUBING (EMT). WIRE INSTALLED IN A PLENUM RATED CEILING SHALL BE INSTALLED IN CONDUIT OR SHALL BE TEFLON COATED PLENUM RATED AS REQUIRED TO COMPLY WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODE REQUIREMENTS.

3.1.1 **RIGID STEEL CONDUIT:** MAKE FIELD-MADE BENDS AND OFFSETS WITH APPROVED HICKEY OR CONDUIT BENDING MACHINE. CONDUIT ELBOWS LARGER THAN 2-1/2 INCHES SHALL BE LONG RADIUS. PROVIDE ALL CONDUIT STUBBED-UP THROUGH CONCRETE FLOORS FOR CONNECTIONS TO FREE-STANDING EQUIPMENT WITH THE EXCEPTION OF MOTOR-CONTROL CENTERS, CUBICLES, AND OTHER SUCH ITEMS OF EQUIPMENT. WITH A FLUSH COUPLING WHEN THE FLOOR SLAB IS OF SUFFICIENT THICKNESS TO BE PENETRATED OTHERWISE, PROVIDE A FLOOR BOX SET FLUSH WITH THE FINISHED FLOOR. CONDUITS INSTALLED FOR FUTURE USE SHALL BE TERMINATED WITH A COUPLING AND PLUG SET FLUSH WITH THE FLOOR.

3.1.2 **ELECTRICAL METALLIC TUBING (EMT):** EMT SHALL BE GROUNDED IN ACCORDANCE WITH NFPA 70, USING PRESSURE GROUNDING CONNECTORS ESPECIALLY DESIGNED FOR EMT.

3.1.3 **FLEXIBLE METALLIC CONDUIT:** BONDING WIRES SHALL BE USED IN FLEXIBLE CONDUIT AS SPECIFIED IN NFPA 70, FOR ALL CIRCUITS. FLEXIBLE CONDUIT SHALL NOT BE CONSIDERED A GROUND CONDUCTOR. ELECTRICAL CONNECTIONS TO VIBRATION-ISOLATED EQUIPMENT SHALL BE MADE WITH LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT. LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED IN WET AND OILY LOCATIONS AND TO COMPLETE THE CONNECTION TO ENCLOSURES.

3.1.4 **INTERMEDIATE CONDUIT:** MAKE ALL FIELD-MADE BENDS AND OFFSETS WITH APPROVED HICKEY OR CONDUIT BENDING MACHINE. USE INTERMEDIATE METAL CONDUIT ONLY FOR INDOOR INSTALLATIONS.

3.1.5 **RIGID NONMETALLIC CONDUIT:** RIGID PVC CONDUIT SHALL BE DIRECT BURIED. A GREEN INSULATED COPPER GROUNDING CONDUCTOR SHALL BE IN CONDUIT WITH CONDUCTORS AND BE SOLIDLY CONNECTED TO GROUND AT EACH END. GROUNDING WIRES SHALL BE SIZED IN ACCORDANCE WITH NFPA 70.

3.1.6 **WIREWAY AND AUXILIARY GUTTER:** STRAIGHT SECTIONS AND FITTINGS SHALL BE BOLTED TOGETHER TO PROVIDE A RIGID, MECHANICAL CONNECTION AND ELECTRICAL CONTINUITY. DEAD ENDS OF WIREWAYS AND AUXILIARY GUTTERS SHALL BE CLOSED. PLUG ALL UNUSED CONDUIT OPENINGS. WIREWAYS FOR DISTRIBUTION AND CONTROL CIRCUITS SHALL BE SUPPORTED AT MAXIMUM 5-FOOT INTERVALS. AUXILIARY GUTTERS USED TO SUPPLEMENT WIRING SPACES FOR EQUIPMENT NOT CONTAINED IN A SINGLE ENCLOSURE SHALL CONTAIN NO SWITCHES, OVERCURRENT DEVICES, APPLIANCES, OR APPARATUS AND BE NOT MORE THAN 30 FEET LONG.

3.1.7 **SURFACE RACEWAYS AND ASSEMBLIES:** SURFACE RACEWAYS SHALL BE MOUNTED PLUMB AND LEVEL, WITH THE BASE AND COVER SECURED. MINIMUM CIRCUIT RUN SHALL BE THREE-WIRE WITH ONE WIRE DESIGNATED AS GROUND.

### 3.2 WIRING

CONDUCTORS UP TO AND INCLUDING AWG NO. 2 SHALL BE MANUFACTURED WITH COLORED INSULATING MATERIALS. CONDUCTORS LARGER THAN AWG NO. 2 SHALL HAVE ENDS IDENTIFIED WITH COLOR PLASTIC TAPE IN OUTLET, PULL, OR JUNCTION BOXES. SPLICE IN ACCORDANCE WITH NFPA 70. PROVIDE IDENTIFICATION WITHIN EACH ENCLOSURE WHERE A TAP, SPLICE, OR TERMINATION IS MADE AND AT THE EQUIPMENT TERMINAL OF EACH CONDUCTOR. TERMINAL AND CONDUCTOR IDENTIFICATION SHALL MATCH AS INDICATED. WHERE SEVERAL FEEDERS PASS THROUGH A COMMON PULLBOX, THE FEEDERS SHALL BE TAGGED TO CLEARLY INDICATE THE ELECTRICAL CHARACTERISTICS, CIRCUIT NUMBER, AND PANEL DESIGNATION.

### 3.3 WIRING DEVICES

3.3.1 **RECEPTACLES:** INSTALL RECEPTACLES SO THAT WHEN DEVICE PLATES ARE APPLIED, THE PLATES WILL BE ALIGNED VERTICALLY TO WITHIN 1/16 INCH. GROUND TERMINAL OF EACH FLUSH-MOUNTED RECEPTACLE SHALL BE BONDED TO THE OUTLET BOX WITH AN APPROVED GREEN BONDING JUMPER WHEN USED WITH DRY WALL TYPE CONSTRUCTION.

3.3.2 **DEVICE PLATES:** DEVICE PLATES FOR SWITCHES THAT ARE NOT WITHIN SIGHT OF THE LOADS CONTROLLED SHALL BE SUITABLY ENGRAVED WITH A DESCRIPTION OF THE LOADS. DEVICE PLATES AND RECEPTACLE COVER PLATES FOR RECEPTACLES OTHER THAN 125-VOLT, SINGLE-PHASE, DUPLEX, CONVENIENCE OUTLETS SHALL BE SUITABLY MARKED, SHOWING THE CIRCUIT NUMBER, VOLTAGE, FREQUENCY, PHASING, AND AMPERAGE AVAILABLE AT THE RECEPTACLE. REQUIRED MARKING SHALL CONSIST OF A SELF-ADHESIVE LABEL HAVING 1/4 INCH EMBOSSED LETTERS. DEVICE PLATES FOR CONVENIENCE OUTLETS SHALL BE SIMILARLY MARKED INDICATING THE SUPPLY PANEL AND CIRCUIT NUMBER.

### 3.4 BOXES AND FITTINGS

FURNISH AND INSTALL PULLBOXES WHERE NECESSARY IN THE CONDUIT SYSTEM TO FACILITATE CONDUCTOR INSTALLATION. CONDUIT RUNS LONGER THAN 100 FEET OR WITH MORE THAN THREE RIGHT-ANGLE BENDS SHALL HAVE A PULLBOX INSTALLED AT A CONVENIENT INTERMEDIATE LOCATION. SECURELY MOUNT BOXES AND ENCLOSURES TO THE BUILDING STRUCTURE WITH SUPPORTING FACILITIES INDEPENDENT OF THE CONDUIT ENTERING OR LEAVING THE BOXES. MOUNTING HEIGHT OF WALL-MOUNTED OUTLET AND SWITCH BOXES, MEASURED BETWEEN THE BOTTOM OF THE BOX AND THE FINISHED FLOOR, SHALL BE IN ACCORDANCE WITH ICC/ANSI A117.1 AND AS FOLLOWS:

LOCATION	MOUNTING HEIGHT
SWITCHES FOR LIGHT CONTROL	42 INCHES

### 3.5 LAMPS AND LIGHTING FIXTURES

INSTALL NEW LAMPS OF THE PROPER TYPE AND WATTAGE IN EACH FIXTURE. SECURELY FASTEN FIXTURES AND SUPPORTS TO STRUCTURAL MEMBERS AND INSTALL PARALLEL AND PERPENDICULAR TO MAJOR AXIS OF STRUCTURES.

### 3.6 IDENTIFICATION PLATES AND WARNINGS

FURNISH AND INSTALL IDENTIFICATION PLATES FOR LIGHTING AND POWER PANELBOARDS, MOTOR CONTROL CENTERS, ALL LINE VOLTAGE HEATING AND VENTILATING CONTROL PANELS, FIRE DETECTOR AND SPRINKLER ALARMS, DOOR BELLS, PILOT LIGHTS, DISCONNECT SWITCHES, MANUAL STARTING SWITCHES, AND MAGNETIC STARTERS. PROCESS CONTROL DEVICES AND PILOT LIGHTS SHALL HAVE IDENTIFICATION PLATES. FURNISH IDENTIFICATION PLATES FOR ALL LINE VOLTAGE ENCLOSED CIRCUIT BREAKERS, IDENTIFYING THE EQUIPMENT SERVED, VOLTAGE, PHASE(S) AND POWER SOURCE. CIRCUITS 480 VOLTS AND ABOVE SHALL HAVE CONSPICUOUSLY LOCATED WARNING SIGNS IN ACCORDANCE WITH OSHA REQUIREMENTS. EACH IDENTIFICATION NAMEPLATE SHALL INCLUDE BUILDING NAME, PANELBOARD DESIGNATION, VOLTAGE AND WHERE PANELBOARD IS FED FROM.

### 3.7 FIELD TESTING

SUBMIT TEST REPORTS IN ACCORDANCE WITH REFERENCED STANDARDS IN THIS SECTION. AFTER COMPLETION OF THE INSTALLATION AND SPLICING, AND PRIOR TO ENERGIZING THE CONDUCTORS, PERFORM WIRE AND CABLE CONTINUITY AND INSULATION TESTS AS HEREIN SPECIFIED BEFORE THE CONDUCTORS ARE ENERGIZED. CONTRACTOR SHALL PROVIDE ALL NECESSARY TEST EQUIPMENT, LABOR, AND PERSONNEL TO PERFORM THE TESTS, AS HEREIN SPECIFIED. ISOLATE COMPLETELY ALL WIRE AND CABLE FROM ALL EXTRANEOUS ELECTRICAL CONNECTIONS AT CABLE TERMINATIONS AND JOINTS. SUBSTATION AND SWITCHBOARD FEEDER BREAKERS, DISCONNECTS IN COMBINATION MOTOR STARTERS, CIRCUIT BREAKERS IN PANEL BOARDS, AND OTHER DISCONNECTING DEVICES SHALL BE USED TO ISOLATE THE CIRCUITS UNDER TEST.

PERFORM INSULATION-RESISTANCE TEST ON EACH FIELD-INSTALLED CONDUCTOR WITH RESPECT TO GROUND AND ADJACENT CONDUCTORS. APPLIED POTENTIAL SHALL BE 500 VOLTS DC FOR 300 VOLT RATED CABLE AND 1000 VOLTS DC FOR 600 VOLT RATED CABLE. TAKE READINGS AFTER 1 MINUTE AND UNTIL THE READING IS CONSTANT FOR 15 SECONDS. MINIMUM INSULATION-RESISTANCE VALUES SHALL NOT BE LESS THAN 25 MEGOHMS FOR 300 VOLT RATED CABLE AND 100 MEGOHMS FOR 600 VOLT RATED CABLE. FOR CIRCUITS WITH CONDUCTOR SIZES 8AWG AND SMALLER INSULATION RESISTANCE TESTING IS NOT REQUIRED.

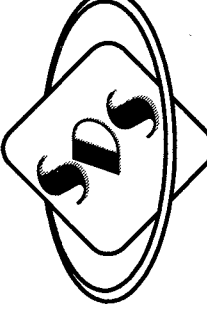
PERFORM CONTINUITY TEST TO INSURE CORRECT CABLE CONNECTION (I.E CORRECT PHASE CONDUCTOR, GROUNDED CONDUCTOR, AND GROUNDING CONDUCTOR WIRING) END-TO-END. ANY DAMAGES TO EXISTING OR NEW ELECTRICAL EQUIPMENT RESULTING FROM CONTRACTOR MIS-WIRING WILL BE REPAIRED AND RE-VERIFIED AT CONTRACTOR'S EXPENSE. ALL REPAIRS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ACCEPTANCE OF THE REPAIR. CONDUCT PHASE-ROTATION TESTS ON ALL THREE-PHASE CIRCUITS USING A PHASE-ROTATION INDICATING INSTRUMENT. PERFORM PHASE ROTATION OF ELECTRICAL CONNECTIONS TO CONNECTED EQUIPMENT CLOCKWISE, FACING THE SOURCE.

### 3.8 GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THE ELECTRICAL SYSTEM TO BE FREE FROM DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.

END OF SECTION 262000

SYSTEMS DESIGN SERVICE




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DATE 06/26/2019  
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06/26/2019

PROJECT #:  
SDSE 19-004

SHEET NUMBER:  
**SE108**  
of  
11



# DIVISION 27 - COMMUNICATIONS

## SECTION 270511 - GENERAL TELECOMMUNICATIONS REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. AUBURN AND GUILFORD HIGH SCHOOLS HAVE AN ESTABLISHED BASE OF TELECOMMUNICATIONS SYSTEMS INCLUDING ROOMS, RACKS, CABLING AND PATHWAYS, CONSISTING OF CATEGORY 5, 6E, AND SOME CATEGORY 6 HORIZONTAL CABLING WITH MULTIMODE FIBER OPTIC BACKBONE CABLING. THE EXISTING CAMERA SYSTEM USES THE MILESTONE VIDEO MANAGEMENT SOFTWARE. THIS PROJECT ADDS EXTERIOR VIDEO SURVEILLANCE CAMERAS, WITH NEW CATEGORY 6 HORIZONTAL COPPER AND BACKBONE FIBER, ON NEW AND EXISTING LIGHT POLES.
- B. THE LOW VOLTAGE CONTRACTOR SHALL FURNISH AND INSTALL ALL COMMUNICATIONS CABLING, SYSTEMS, EQUIPMENT, AND ACCESSORIES IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS. THE INSTALLING CONTRACTOR SHALL PROVIDE ALL INSTALLATION MATERIALS AND THAT ARE REQUIRED TO PERFECT THE INSTALLATION AND TO PROVIDE A COMPLETE, FUNCTIONAL SYSTEM AS DESCRIBED IN THE SPECIFICATIONS AND PROJECT DRAWINGS

#### 1.2 MINIMUM REQUIREMENTS

- A. REFERENCES TO INDUSTRY AND TRADE ASSOCIATION STANDARDS AND CODES ARE MINIMUM INSTALLATION REQUIREMENT STANDARDS.
- B. DRAWINGS AND OTHER SPECIFICATION SECTIONS SHALL GOVERN IN THOSE INSTANCES WHERE REQUIREMENTS ARE GREATER THAN THOSE SPECIFIED IN THE ABOVE STANDARDS.

#### 1.3 QUALIFICATIONS (PRODUCTS AND SERVICES)

- A. MANUFACTURERS QUALIFICATIONS: THE MANUFACTURER SHALL REGULARLY AND PRESENTLY PRODUCE, AS ONE OF THE MANUFACTURERS PRINCIPAL PRODUCTS, THE EQUIPMENT AND MATERIAL SPECIFIED FOR THIS PROJECT, AND SHALL HAVE MANUFACTURED THE ITEM FOR AT LEAST THREE YEARS.
- B. PRODUCT QUALIFICATION:
1. MANUFACTURERS PRODUCT SHALL HAVE BEEN IN SATISFACTORY OPERATION, ON THREE INSTALLATIONS OF SIMILAR SIZE AND TYPE AS THIS PROJECT, FOR APPROXIMATELY THREE YEARS.
- C. SERVICE QUALIFICATIONS: THERE SHALL BE A PERMANENT SERVICE ORGANIZATION MAINTAINED OR TRAINED BY THE MANUFACTURER WHICH WILL RENDER SATISFACTORY SERVICE TO THIS INSTALLATION WITHIN FOUR HOURS OF RECEIPT OF NOTIFICATION THAT SERVICE IS NEEDED. SUBMIT NAME AND ADDRESS OF SERVICE ORGANIZATIONS.

#### 1.4 MANUFACTURED PRODUCTS

- A. MATERIALS AND EQUIPMENT FURNISHED SHALL BE OF CURRENT PRODUCTION BY MANUFACTURERS REGULARLY ENGAGED IN THE MANUFACTURE OF SUCH ITEMS, FOR WHICH REPLACEMENT PARTS SHALL BE AVAILABLE.
- B. WHEN MORE THAN ONE UNIT OF THE SAME CLASS OF EQUIPMENT IS REQUIRED, SUCH UNITS SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER.
- C. EQUIPMENT ASSEMBLIES AND COMPONENTS:
1. COMPONENTS OF AN ASSEMBLED UNIT NEED NOT BE PRODUCTS OF THE SAME MANUFACTURER.
2. MANUFACTURERS OF EQUIPMENT ASSEMBLIES, WHICH INCLUDE COMPONENTS MADE BY OTHERS, SHALL ASSUME COMPLETE RESPONSIBILITY FOR THE FINAL ASSEMBLED UNIT.
3. COMPONENTS SHALL BE COMPATIBLE WITH EACH OTHER AND WITH THE TOTAL ASSEMBLY FOR THE INTENDED SERVICE.
4. CONSTITUENT PARTS WHICH ARE SIMILAR SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER, SO AS TO PROVIDE THE REQUIRED MANUFACTURER'S WARRANTY.
- D. FACTORY WIRING SHALL BE IDENTIFIED ON THE EQUIPMENT BEING FURNISHED AND ON ALL WIRING DIAGRAMS.

#### 1.5 EQUIPMENT PROTECTION

- A. EQUIPMENT AND MATERIALS SHALL BE PROTECTED DURING SHIPMENT AND STORAGE AGAINST PHYSICAL DAMAGE, DIRT, MOISTURE, COLD AND RAIN:
1. DURING INSTALLATION, ENCLOSURES, EQUIPMENT, CONTROLS, CONTROLLERS, CIRCUIT PROTECTIVE DEVICES, AND OTHER LIKE ITEMS, SHALL BE PROTECTED AGAINST ENTRY OF FOREIGN MATTER; AND BE VACUUM CLEANED BOTH INSIDE AND OUTSIDE BEFORE TESTING AND OPERATING AND REPAINTING IF REQUIRED.
2. DAMAGED EQUIPMENT SHALL BE, AS DETERMINED BY THE OWNER, PLACED IN FIRST CLASS OPERATING CONDITION OR BE RETURNED TO THE SOURCE OF SUPPLY FOR REPAIR OR REPLACEMENT.
3. PAINTED SURFACES SHALL BE PROTECTED.
4. DAMAGED PAINT ON SURFACES, EQUIPMENT AND MATERIALS SHALL BE REFINISHED WITH THE SAME QUALITY OF PAINT AND WORKMANSHIP AS USED BY THE MANUFACTURER SO REPAIRED AREAS ARE NOT OBVIOUS.

#### 1.6 WORK PERFORMANCE

- A. JOB SITE SAFETY AND WORKER SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR.
- B. FOR ALL WORK, ARRANGE, PHASE AND PERFORM WORK TO ASSURE COMMUNICATIONS SERVICE FOR BUILDINGS REMAIN ACTIVE AT ALL TIMES. COORDINATE ANY AND ALL POTENTIAL OUTAGES WITH THE OWNER PRIOR TO EXECUTION OF WORK.
- C. NEW WORK SHALL BE INSTALLED AND CONNECTED TO EXISTING WORK NEATLY AND CAREFULLY. DISTURBED OR DAMAGED WORK SHALL BE REPLACED OR REPAIRED TO ITS PRIOR CONDITIONS.
- D. COORDINATE LOCATION OF EQUIPMENT AND PATHWAYS WITH OTHER TRADES TO MINIMIZE INTERFERENCES.

#### 1.7 EQUIPMENT IDENTIFICATION

- A. NAMEPLATES SHALL BE LAMINATED BLACK PHENOLIC RESIN WITH A WHITE CORE WITH ENGRAVED LETTERING, A MINIMUM OF 6 MM (1/4 INCH) HIGH. SECURE NAMEPLATES WITH SCREWS. NAMEPLATES SHALL BE PLACED ON ALL RACKS, CABINETS, AND PATCH PANELS.

#### 1.8 SUBMITTALS

- B. THE OWNER'S APPROVAL SHALL BE OBTAINED FOR ALL EQUIPMENT AND MATERIAL BEFORE DELIVERY TO THE JOB SITE.

## SECTION 270528 - COMMUNICATIONS PATHWAYS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

#### 1.2 SUMMARY

- A. THE WORK COVERED UNDER THIS SECTION CONSISTS OF THE FURNISHING OF ALL NECESSARY LABOR, SUPERVISION, MATERIALS, EQUIPMENT, AND SERVICES TO COMPLETELY EXECUTE THE HORIZONTAL CABLE PATHWAY SYSTEM OF NON-CONTINUOUS CABLE SUPPORTS, CONDUIT OR CABLE TRAY AS DESCRIBED IN THE DRAWINGS. EXISTING PATHWAYS SHALL BE USED WHERE POSSIBLE.
- B. RELATED REQUIREMENTS:
1. DIVISION 27 SECTION "GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS"
2. DIVISION 27 SECTION "COMMUNICATIONS EQUIPMENT ROOM FITTINGS".
3. DIVISION 27 SECTION "COMMUNICATION HORIZONTAL CABLING".

#### 1.3 REFERENCES

- A. ANS/NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) 2008
- B. ASTM B633 - SPECIFICATION FOR ELECTRODEPOSITED COATINGS OF ZINK ON IRON AND STEEL
- C. ASTM A653 - SPECIFICATION FOR STEEL SHEET, ZINC-COATED (GALVANIZED) BY THE HOT DIP PROCESS
- D. ASTM A123 - SPECIFICATION FOR ZINK (HOT GALVANIZED) COATINGS ON IRON AND STEEL
- E. ASTM A510 - SPECIFICATION FOR GENERAL REQUIREMENTS FOR WIRE RODS AND COARSE ROUND WIRE, CARBON STEEL
- F. ASTM A 641 - STANDARD SPECIFICATION FOR ZINC-COATED (GALVANIZED) CARBON STEEL WIRE
- G. ASTM A 580 - STANDARD SPECIFICATION FOR STAINLESS STEEL WIRE
- H. ASTM D 769 - STANDARD SPECIFICATION FOR BLACK OXIDE COATINGS
- I. NEMA VE 1-2002 - METAL CABLE TRAY SYSTEMS
- J. NEMA VE 2-2006 - CABLE TRAY INSTALLATION GUIDELINES
- K. UL COMPLIANCE - PROVIDE PRODUCTS THAT ARE UL-CCLASSIFIED AND LABELED
- L. ANS/ITIA-569-B COMMERCIAL BUILDING STANDARD FOR TELECOMMUNICATIONS PATHWAYS AND SPACES
- M. ANS/ITIA J-STD-607-A COMMERCIAL BUILDING GROUNDING (EARTHING) AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS
- N. IEC 61537 (2001) - CABLE TRAY SYSTEMS AND CABLE LADDER SYSTEMS FOR CABLE MANAGEMENT
- O. BICSI TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL

#### 1.4 COORDINATION WITH OTHER TRADES

- A. COORDINATE THE CABLE PATHWAYS SUPPORT SYSTEMS AS TO NOT INTERFERE WITH OTHER BUILDING SYSTEMS.
- B. COORDINATE ROUTING OF CABLE PATHWAYS WITH THE WORK OF OTHER TRADES TO MAINTAIN ADEQUATE WORKING CLEARANCES ABOVE, BELOW AND TO THE SIDES OF CABLE PATHWAYS.

### PART 2 - PRODUCTS

#### 2.1 NON-CONTINUOUS CABLE SUPPORT (J-HOOKS)

- A. ACCEPTABLE MANUFACTURERS
1. CHATSWORTH PRODUCTS
2. COOPER B-LINE
3. ERICO
4. CHATSWORTH PRODUCTS, INC.
5. PANDUIT
- B. GENERAL
1. J-HOOKS SHALL HAVE FLARED EDGES TO PREVENT DAMAGE WHILE INSTALLING CABLES.
2. J-HOOKS SHALL HAVE AN PLASTIC, ELECTRO-GALVANIZED OR G 60 FINISH AND SHALL BE RATED FOR INDOOR USE FOR NON-CORROSIVE ENVIRONMENTS
3. J-HOOK CABLE SUPPORTS SHALL PROVIDE A BEARING SURFACE OF SUFFICIENT WIDTH TO COMPLY WITH THE BEND RADI OF HIGH PERFORMANCE CABLES.
4. J-HOOKS SHALL HAVE A STAINLESS STEEL CABLE LATCH RETAINER TO PROVIDE CONTAINMENT OF CABLES WITHIN THE HOOK. THE RETAINER SHALL BE REMOVABLE AND REUSABLE.

#### C. SIZE

1. J-HOOKS SHALL PROVIDE A BEARING SURFACE OF SUFFICIENT WIDTH TO COMPLY WITH REQUIRED BEND RADI OF HIGH PERFORMANCE CABLES. J-HOOKS SHALL HAVE A MINIMUM BEARING SURFACE OF 1 1/4 INCHES.
2. J-HOOKS SHALL HAVE FLARED EDGES OR BE OF A DESIGN AS TO RELIEVE STRESS ON CABLES AT THE BOTTOM OF THE BUNDLE THAT COULD IMPROVE ON THE CABLES PERFORMANCE.
3. FOLLOW MANUFACTURERS RECOMMENDATIONS FOR ALLOWABLE FILL CAPACITY FOR EACH SIZE J-HOOK CABLE SUPPORT. TYPICALLY FILL CAPACITY FOR A CADDY CAT32 TYPE J-HOOK IS 80 CAT 5 CABLES OR 50 CAT 6 CABLES.

#### D. SUPPORT

1. J-HOOKS MAY BE MOUNTED TO STUDS AND STUD WALLS. WHEN MOUNTING J-HOOKS TO STUD WALLS THE J-HOOK SHALL BE CONNECTED DIRECTLY TO THE STUD, THE J-HOOK SHALL NOT BE SUPPORTED BY THE WALL COVERING/ FINISH ALONE.
2. J-HOOKS MAY BE SUPPORTED BY THREADED ROD. REFER TO MANUFACTURER'S SUGGESTED ATTACHMENT METHOD TO ATTACH J-HOOK TO THREADED ROD USING STANDARD NUTS.
3. J-HOOKS MAY BE SUPPORTED BY THE USE OF BEAM ATTACHMENTS EITHER FACTORY OR JOBSITE ASSEMBLED EITHER HAMMER OR SCREW ON TYPE, C & Z PERLIN SUPPORT, WALL, CONCRETE OR JOIST SUPPORT USING FACTORY APPROVED ATTACHMENT METHOD.
- E. INSTALLATION: PROVIDE DEDICATED SPACE SURROUNDING THE NON-CONTINUOUS CABLE PATHWAYS TO PERMIT ACCESS FOR INSTALLING AND MAINTAINING CABLES. REFER TO SECTION 3.2 BELOW FOR SPECIFIC CLEARANCES REQUIRED.

#### 2.2 LADDER RACK SUPPORT SYSTEM

##### A. ACCEPTABLE MANUFACTURERS

1. CHATSWORTH PRODUCTS
2. COOPER B-LINE
3. PANDUIT

##### B. GENERAL

1. PROVIDE METAL, CABLE TRAYS, OF TYPES, CLASSES, AND SIZE INDICATED; WITH SPLICE PLATES, BOLTS, NUTS AND WASHERS FOR CONNECTING SECTIONS. CONSTRUCT SYSTEM MAINTAINING ROUNDED EDGES AND SMOOTH SURFACES IN COMPLIANCE WITH THE APPLICABLE STANDARDS. CABLE TRAY SHALL BE INSTALLED ACCORDING TO THE LATEST REVISION OF NEMA VE-2.
2. LADDER TRAY SHALL CONSIST OF TWO LONGITUDINAL MEMBERS (SIDE RAILS) WITH TRANSVERSE MEMBERS (RUNGS) WELDED OR MECHANICALLY FASTENED TO THE SIDE RAILS.
3. STRAIGHT SECTIONS, FITTING SIDE RAILS, RUNGS AND SPLICE PLATES SHALL BE EXTRUDED FROM ALUMINUM (ASTM B 221 6063 ALLOY) OR SHALL HAVE STRINGERS MADE OF 16 GAUGE HOT ROLLED STEEL TUBING AND CROSS MEMBERS SHALL BE MADE OF 12 GAUGE COLD ROLLED STEEL (ASTM A 569).
4. THE CABLE RACEWAY SHALL BE AVAILABLE IN BLACK AND GRAY PAINTED FINISHES AND CLEAR ANODIZED ALUMINUM FINISH.
5. GROUND CABLE RACK AT END OF EVERY RUN.
6. BOND EVERY SECTION OF CABLE RACK TO THE ADJOINING SECTION AS PER MANUFACTURER'S SPECIFICATION.
7. PROVIDE CABLE DROP OUT BRACKETS AT EVERY LOCATION WHERE CABLE EXITS THE TRAY.
8. PROVIDE PLASTIC END CAPS ON SIDE RAILS ENDS.

#### C. SIZE

1. LADDER RACK SHALL CONSIST OF TWO SIDE RAILS WITH TRANSVERSE RUNGS WELDED, OR MECHANICALLY FASTENED TO THE SIDE RAILS, RUNGS SHALL BE SPACED AT 12 INCHES ON CENTER AND SHALL HAVE A MINIMUM WIDTH OF 1" FOR CABLE LAYING.
2. STRAIGHT SECTIONS SHALL BE SUPPLIED IN STANDARD 10 FOOT LENGTHS.
3. LADDER RACK SHALL BE AVAILABLE IN 6, 9, 12, 18 AND 24 INCH WIDTHS (AS INDICATED ON THE DRAWINGS).
4. ALL FITTINGS SHALL HAVE A MINIMUM BEND RADIUS OF 12 INCHES
5. ALL SECTION SPLICES SHALL BE MADE PER MANUFACTURER'S STANDARDS.

#### D. SUPPORT

1. THE CABLE RACEWAY SHALL BE SUPPORTED BY THE SIDE RAILS OR TRAPEZE SUPPORT BY A MINIMUM 3/8 INCH THREADED ROD AND AT INTERVALS OF NO MORE THAN 5'.
2. SPECIAL ACCESSORIES SHALL BE FURNISHED AS REQUIRED TO PROTECT SUPPORT AND INSTALL A COMPLETE LADDER RACK SUPPORT SYSTEM.
3. THE CABLE RACEWAY SHALL BE CAPABLE OF SUPPORTING 115 LB/FT WHEN SUPPORTED AT 5' INTERVALS.
4. THE MANUFACTURER SHALL PROVIDE HARDWARE FOR JOINING SECTIONS OF CABLE RACEWAY IN STRAIGHT LINES AND AT RIGHT ANGLES. THERE SHALL ALSO BE HARDWARE PROVIDED TO MOUNT AND JOIN THE CABLE RACEWAY IN VARIOUS CONFIGURATIONS AND ATTACHMENT METHODS TO WALLS, RACKS, AND EQUIPMENT.

#### E. INSTALLATION

1. INSTALL LADDER RACK AS INDICATED ON DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S INSTRUCTION, AND WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT LADDER RACK COMPLIES WITH REQUIREMENTS OF NEC AND APPLICABLE PORTIONS OF NFPA 70B REFERENCE NEMA-VE2 FOR GENERAL LADDER RACK INSTALLATION GUIDELINES.
2. COORDINATE LADDER RACK INSTALLATION WITH OTHER ELECTRICAL WORK AS NECESSARY TO PROPERLY INTEGRATE INSTALLATION WITH OTHER WORK.
3. PROVIDE DEDICATED SPACE ENCOMPASSING THE LADDER RACKING TO PERMIT ACCESS FOR INSTALLING AND MAINTAINING CABLES. REFER TO SECTION 3.2 BELOW FOR SPECIFIC CLEARANCES REQUIRED.
4. LADDER RACK FITTING SUPPORTS SHALL BE LOCATED SUCH THAT THEY MEET THE STRENGTH REQUIREMENTS OF STRAIGHT SECTIONS. INSTALL FITTING SUPPORTS PER NEMA VE-2 GUIDELINES, OR IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.
5. TEST LADDER RACK TO ENSURE ELECTRICAL CONTINUITY OF BONDING AND GROUNDING CONNECTIONS, AND TO DEMONSTRATE COMPLIANCE WITH SPECIFIED MAXIMUM GROUNDING RESISTANCE. SEE NFPA 70B, CHAPTER 18, FOR TESTING AND TEST METHODS.

#### 2.3 BOXES AND ENCLOSURES

##### A. ACCEPTABLE MANUFACTURERS:

1. PANDUIT
2. COOPER TECHNOLOGIES COMPANY; COOPER CROUSE-HINDS.
3. HOFFMAN; A PENTAIR COMPANY.
4. HUBBELL INCORPORATED; KILLARK DIVISION.
5. RACO; A HUBBELL COMPANY.
6. WIREMOLD / LEGRAND.

##### B. GENERAL REQUIREMENTS FOR BOXES, ENCLOSURES, AND CABINETS:

1. COMPLY WITH ANS/ITIA-569-B.
2. BOXES, ENCLOSURES AND CABINETS INSTALLED IN WET LOCATIONS SHALL BE LISTED FOR USE IN WET LOCATIONS.
- C. SHEET-METAL BOXES: STAINLESS STEEL, TYPE 316.
- D. BOX EXTENSIONS USED TO ACCOMMODATE NEW BUILDING FINISHES SHALL BE OF SAME MATERIAL AS RECESSED BOX.
- E. EXTERIOR PULL AND JUNCTION BOXES: NEMA 4X.
- F. GANGABLE BOXES ARE PROHIBITED.
- G. NONMETALLIC OUTLET AND DEVICE BOXES: COMPLY WITH NEMA OS 2 AND UL 514C.
- H. ENCLOSURES:

1. COMPLY WITH UL 50 AND NEMA 250, TYPE 1 GALVANIZED STEEL BOX WITH REMOVABLE INTERIOR PANEL AND REMOVABLE FRONT, FINISHED INSIDE AND OUT WITH MANUFACTURER'S STANDARD ENAMEL.
2. METAL ENCLOSURES: STAINLESS STEEL, FINISHED INSIDE AND OUT WITH MANUFACTURER'S STANDARD ENAMEL.
3. INTERIOR PANELS: STAINLESS STEEL; ALL SIDES FINISHED WITH MANUFACTURER'S STANDARD ENAMEL.
4. METAL BARRIERS TO SEPARATE WIRING OF DIFFERENT SYSTEMS AND VOLTAGE.
5. ACCESSORY FEET WHERE REQUIRED FOR FREESTANDING EQUIPMENT.
6. NONMETALLIC CABINETS SHALL BE LISTED AND LABELED AS DEFINED IN NFPA 70, BY A QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND APPLICATION.

#### 2.3 CONDUITS/SLEEVES

##### A. GENERAL

1. CONDUITS/SLEEVE SHALL BE AS CALLED FOR ON PROJECT DRAWINGS.
2. ANY CONDUITS/SLEEVE INSTALLED FOR COMMUNICATION CABLING SHALL HAVE A COUPLER ON EACH END WITH A PLASTIC BUSHING FOR CABLE PROTECTION.
3. TERMINATE METAL CONDUIT USING CONNECTORS WITH PLASTIC BUSHINGS.
4. PROVIDE NYLON OR PLASTIC PULL STRINGS IN ALL CONDUIT RUNS.
- B. FIRE WALL PENETRATIONS
1. APPLY FIRESTOPPING TO PENETRATIONS OF FIRE-RATED FLOOR AND WALL ASSEMBLIES FOR COMMUNICATIONS INSTALLATIONS TO RESTORE ORIGINAL FIRE-RESISTANCE RATING OF ASSEMBLY. FIRESTOPPING MATERIALS AND INSTALLATION REQUIREMENTS ARE SPECIFIED IN DIVISION 07 SECTION "PENETRATION FIRESTOPPING."
2. FIRE STOP PENETRATIONS SEAL METHODS AND MATERIALS SHALL BE FM-APPROVED AND UL LISTED AS APPLICABLE AND AS APPROVED BY THE AUTHORITIES HAVING JURISDICTION.
3. ALL SEALING METHODS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW .

#### 2.4 NONMETALLIC RACEWAY

##### A. ACCEPTABLE MANUFACTURERS

1. LEGRAND-WIREMOLD ECLIPSE PN05 SERIES,
2. PANDUIT LDPH5 SERIES,
3. HUBBELL PWM1,

#### B. FLEXIBLE RACEWAY SHALL MATCH EXISTING WALL/CEILING COLOR.

#### C. NON-METALLIC RACEWAY SHALL MEET THE REQUIREMENTS:

1. NEC ARTICLES 770 AND 800 FOR TELECOMMUNICATIONS CABLES.
2. RACEWAY SHALL BE UL LISTED UNDER UL 910 STANDARD FOR PLENUM APPLICATION FOR OPTICAL FIBER RACEWAY.
- D. FLEXIBLE RACEWAY SHALL BE PROVIDED WITH A PULL (MULE) TAPE ROUTED THROUGHOUT THE RACEWAY CONTAINING FOOTAGE MARKINGS.
- E. ALL RACEWAY FITTING AND ACCESSORIES SHALL BE MANUFACTURED BY THE SAME MANUFACTURER AS THE NON-METALLIC RACEWAY.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. PATHWAYS SHALL PRIMARILY BE CONSTRUCTED FROM WALL/STRUCTURE MOUNTED J-HOOKS, J-HOOKS HUNG FROM CEILING, RING TYPE SUPPORTS, WIRE BASKET TRAYS SUPPORTED BY THREADED ROD OR WALL BRACKETS, LADDER RACK SUPPORTED BY THREADED ROD OR WALL BRACKETS, OR CONDUIT SUPPORTED AS PER THE NEC.
- B. J-HOOKS SHALL NOT BE ATTACHED TO THE ANY DROP CEILING GRID WIRING.
- C. IN FINISHED AREAS, CONCEAL CONDUITS AND FLUSH MOUNT BOXES.
- D. CONDUIT INSTALLATION SHALL BE COORDINATED WITH THEIR RESPECTIVE TERMINATION EQUIPMENT LAYOUTS AT EACH BACKBOARD LOCATION AS REQUIRED TO PROVIDE ADEQUATE DEDICATED SPACE FOR EQUIPMENT PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR .
- E. CABLE PATHWAY SYSTEMS SHALL BE SUPPORTED BY SUPPORT SYSTEMS SPECIFICALLY DESIGNED AND MANUFACTURED FOR THE SUPPORT OF CABLE PATHWAY SYSTEMS. THE CABLE PATHWAY SYSTEMS SHALL NOT BE SUPPORTED BY OTHER INSTALLED BUILDING SYSTEMS.
- F. INSTALL ALL PATHWAY SYSTEMS AS PER MANUFACTURERS RECOMMENDED PRACTICES AND AS PER LOCAL GOVERNMENTAL REGULATIONS AND NEC, AND BICSI REGULATIONS AND PRACTICES.
- G. ALL CABLE PATHWAY ROUTES ARE TO BE PARALLEL AND/OR PERPENDICULAR WITH THE OUTSIDE WALLS OF THE BUILDING. ALTERNATE PATHS MUST BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO INSTALLATION OF THE CABLING.

#### I. CABLE PATHWAYS

1. A DEDICATED PATHWAY SHALL BE PROVIDED FOR EACH LOW VOLTAGE COMMUNICATIONS CABLING SUB-SYSTEM, INCLUDING BUT NOT LIMITED TO THE STRUCTURED CABLING SYSTEM, SECURITY SYSTEMS, AUDIOVISUAL SYSTEMS AND OTHER LOW VOLTAGE CONTROL SYSTEM CABLING.
- J. NON-CONTINUOUS CABLE PATHWAYS (J-HOOKS/RINGS)
1. NON-CONTINUOUS CABLE SUPPORT SHALL BE LOCATED AT INTERVALS OF FOUR (4) FEET MAXIMUM.
2. NON-CONTINUOUS CABLE SUPPORTS SHALL BE INSTALLED SUCH THAT ALL CABLE RUNS THROUGH THEM MAINTAIN A MINIMUM CLEARANCE OF 12-INCHES IN RELATION TO ALL FLUORESCENT LIGHTS AND EMF SOURCES. ANY VIOLATIONS OF THIS RULE WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
3. HORIZONTAL CABLING SHALL NOT LAY ON ANY CEILING OR CEILING TILE. ALL HORIZONTAL CABLING SHALL MAINTAIN A MINIMUM CLEARANCE OF 6" ABOVE CEILING, CEILING TILE AND SUPPORT CHANNELS.
4. CABLE PATHWAYS SHALL NOT BE ROUTED PARALLEL WITH ELECTRICAL CONDUITS OR STRAPPED TO OR SUPPORTED BY ANY ELECTRICAL CONDUITS OR ANY OTHER BUILDING SERVICE EQUIPMENT.

#### K. CONDUIT/SLEEVES

1. ANY SECTION OF CONDUIT LONGER THAN 150 FEET OR CONTAINING MORE THAN A TOTAL 180 DEGREES OF BENDS SHALL HAVE PULL BOXES. THESE BOXES WILL NOT BE SHOWN ON DRAWINGS. REFER TO THE BICSI TDDM FOR PULL BOX SIZING.
2. EACH CONDUIT BEND SHALL BE A LONG SWEEP RADIUS WHEREVER POSSIBLE. IN NO INSTANCE SHALL THE INSIDE RADIUS OR BEND BE LESS THAN SIX (6) TIMES THE INTERNAL DIAMETER OF THE CONDUIT FOR CONDUITS THAT ARE 2" IN DIAMETER OR LESS, FOR CONDUITS LARGER THAN 2" THE BEND RADIUS SHALL BE NO LESS THAN 10 (TEN) TIMES THE INSIDE DIAMETER.
3. ALL SLEEVES SHALL BE OF A SIZE AS TO NOT HAVE MORE THAN 40% OF THE SLEEVE FILLED WITH LOW VOLTAGE CABLE AT THE COMPLETION OF THE INSTALLATION. PROVIDE A MINIMUM OF 50% CAPACITY FOR FUTURE GROWTH AT EACH SLEEVE LOCATION.
4. IN LOCATIONS CONTAINING MULTIPLE SLEEVES, SLEEVES SHALL BE FILLED TO CAPACITY BEFORE INSTALLING CABLING IN ADJACENT SLEEVES.
5. ALL CONDUITS/SLEEVES SHALL BE SECURED AND STRAPPED TO BUILDING SURFACES PER NATIONAL ELECTRIC CODE (NEC 2008 ARTICLE 358.30 (A) AND (B)).

#### L. PULL BOXES

1. INSTALL PULL BOXES WHERE REQUIRED TO MAINTAIN MINIMUM BEND RADIUS AT WALL/PATHWAY TRANSITIONS.
2. ALL PULL BOXES INSTALLED IN LOW VOLTAGE COMMUNICATIONS CONDUIT RUNS SHALL BE SIZED PER NEC OR TABLE 4.7 OF THE BICSI TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL, WHICH EVER REQUIREMENT RESULTS IN A LARGER PULL BOX.
3. PROVIDE DEDICATED SPACE ENCOMPASSING PULL BOX TO PERMIT ACCESS FOR INSTALLING AND MAINTAINING CABLES.

#### M. FIRESTOPPING

1. COMPLY WITH REQUIREMENTS IN ANS/ITIA-569-B.
2. RESPONSIBILITY FOR SEALING OF OPENING AROUND THE EXTERIOR OF THE LOW VOLTAGE SYSTEM SLEEVES SHALL BE BY THE CONTRACTOR AS DESCRIBED BELOW:
- a. SLEEVES THROUGH FIRE RATED AND SMOKE WALLS CREATED BY THE LOW VOLTAGE CONTRACTOR FOR CABLE PASS THROUGH SHALL BE THE RESPONSIBILITY OF THE LOW VOLTAGE CONTRACTOR.
- b. SLEEVES THROUGH FIRE RATED AND SMOKE WALLS CREATED BY THE ELECTRICAL CONTRACTOR FOR CABLE PASS THROUGH SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- c. SLEEVES OF OPENINGS BETWEEN FLOORS CREATED BY THE LOW VOLTAGE CONTRACTOR FOR CABLE PASS THROUGH SHALL BE THE RESPONSIBILITY OF THE LOW VOLTAGE CONTRACTOR.
- d. SLEEVES OF OPENINGS BETWEEN FLOORS CREATED BY THE ELECTRICAL CONTRACTOR FOR CABLE PASS THROUGH SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
3. SEALING OF THE SPACE INTERVAL TO ALL SLEEVES OR OPENINGS SPECIFICALLY DESIGNATED FOR TELECOMMUNICATIONS CABLING SHALL BE THE RESPONSIBILITY OF THE LOW VOLTAGE CONTRACTOR.
4. SEALING MATERIAL AND APPLICATION OF THIS MATERIAL SHALL BE ACCOMPLISHED IN SUCH A MANNER WHICH IS ACCEPTABLE TO THE LOCAL FIRE AND BUILDING AUTHORITIES HAVING JURISDICTION OVER THIS WORK.

#### N. SEPARATION FROM EMI SOURCES:

1. COMPLY WITH BICSI TDDM AND ANS/ITIA-569-B RECOMMENDATIONS FOR SEPARATING UNSHIELDED COPPER VOICE AND DATA COMMUNICATION CABLE FROM POTENTIAL EMI SOURCES, INCLUDING ELECTRICAL POWER LINES AND EQUIPMENT.

## SECTION 271100 - COMMUNICATIONS ROOM FITTINGS

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. SECTION INCLUDES:

1. TELECOMMUNICATIONS EQUIPMENT CABINETS.
2. EQUIPMENT RACK AND CABINET ACCESSORIES.

##### B. RELATED REQUIREMENTS:

1. DIVISION 27 SECTION "PATHWAYS FOR COMMUNICATIONS SYSTEMS" FOR CABLE TRAYS AND ACCESSORIES.
2. DIVISION 27 SECTION "GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS" FOR GROUNDING AND BONDING OF EQUIPMENT ROOM FITTINGS.
3. DIVISION 27 SECTION "COMMUNICATIONS BACKBONE CABLING" FOR VOICE AND DATA CABLING ASSOCIATED WITH SYSTEM PANELS AND DEVICES.
4. DIVISION 27 SECTION "COMMUNICATIONS HORIZONTAL CABLING" FOR VOICE AND DATA CABLING ASSOCIATED WITH SYSTEM PANELS AND DEVICES.

#### 1.2 COORDINATION

1. ADJUST ARRANGEMENTS AND LOCATIONS OF DISTRIBUTION FRAMES, CROSS-CONNECTS, AND PATCH PANELS IN EQUIPMENT ROOMS TO ACCOMMODATE AND OPTIMIZE ARRANGEMENT AND SPACE REQUIREMENTS OF UPS AND LAN EQUIPMENT.
2. ADJUST ARRANGEMENTS AND LOCATIONS OF EQUIPMENT WITH DISTRIBUTION FRAMES, CROSS-CONNECTS, AND PATCH PANELS OF CABLING SYSTEMS OF OTHER COMMUNICATIONS, ELECTRONIC SAFETY AND SECURITY, AND RELATED SYSTEMS THAT SHARE SPACE IN THE EQUIPMENT ROOM.

- B. COORDINATE LOCATION OF POWER RACEWAYS AND RECEPTACLES WITH LOCATIONS OF COMMUNICATIONS EQUIPMENT REQUIRING ELECTRICAL POWER TO OPERATE WITH THE ELECTRICAL CONTRACTOR.

### PART 2 - PRODUCTS

#### 2.1 BACKBOARDS

##### A. BACKBOARDS:

1. THE PLYWOOD BACKBOARD SHALL BE PAINTED WITH TWO COATS OF FIRE RETARDANT PAINT COVERING THE FACE AND ALL OF THE EDGES OF THE PLYWOOD BACKBOARD.

#### 2.2 POWER STRIPS

##### A. ACCEPTABLE MANUFACTURERS:

1. APC, BY SCHNIEDER ELECTRIC
2. CHATSWORTH PRODUCTS, INC. (CPI)
3. GEIST MANUFACTURING
4. SERVER TECHNOLOGY, INC.

##### B. POWER STRIPS: COMPLY WITH UL 1363.

1. BOTH HORIZONTAL RACK MOUNTED AND VERTICAL OFFSET MOUNTED POWER STRIPS SHALL INCLUDE THE REQUIRED MOUNTING HARDWARE.
2. POWER STRIPS MOUNTED IN WALL MOUNTED EQUIPMENT CABINETS SHALL BE MOUNTED INTERNALLY TO THE CABINET AND INCLUDE THE REQUIRED MOUNTING HARDWARE.
3. POWER STRIPS SHALL BE AVAILABLE FROM DISTRIBUTION STOCK WITH STANDARD NEMA STYLE RECEPTACLES INCLUDING: 5-20R, L5-20R, L5-30R, C-13 AND C-19 RECEPTACLES.
4. POWER STRIPS SHALL BE AVAILABLE WITH CLOSE-COUPLED, DIRECT PLUG-IN, CORD CONNECTED WITH 15-FOOT OR HARD WIRED LINE CORDS. DIRECT PLUG-IN LINE CORDS SHALL BE AVAILABLE WITH NEMA STANDARD PULGS INCLUDING 5-20P, L5-20P AND L5-30P.
5. CIRCUIT BREAKER AND THERMAL FUSING: WHEN PROTECTION IS LOST, CIRCUIT OPENS AND CAN BE RESET.

#### 6. PEAK SINGLE-IMPULSE SURGE CURRENT RATING: 33 KA PER PHASE.

7. PROTECTION MODES SHALL BE LINE TO NEUTRAL, LINE TO GROUND, AND NEUTRAL TO GROUND. UL 1449 CLAMPING VOLTAGE FOR ALL 3 MODES SHALL BE NOT MORE THAN 330 V.
8. POWER STRIPS SHALL BE CAPABLE OF MONITORING THE VOLTAGE, AMPERAGE, WATTAGE AND POWER FACTOR OF THE POWER STRIP. VALUES SHALL BE DISPLAYED ON THE FACE ON THE FACE OF THE POWER STRIP.

### 2.3 EQUIPMENT FRAMES

#### A. WALL MOUNTED EQUIPMENT CABINET

##### 1. APPROVED MANUFACTURERS:

- a. CHATSWORTH PRODUCTS, INC. (CPI)
- b. COOPER B-LINE
- c. HOFFMAN ENCLOSURES A

2. EACH CABINET SHALL BE TYPE 316 STAINLESS STEEL WITH NEMA 4X RATING, A CONTINUOUS HINGED CABINET DOOR PROVIDING EASY ACCESS TO EQUIPMENT, CLAMP ASSEMBLY, FOAM GASKET, AND PADLOCK HASP.
3. UL 508A LISTED.
4. USE STAINLESS STEEL SEALU TIGHT PENETRATIONS FOR LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT CONNECTIONS.
5. PROVIDE SUFFICIENT LFMC TO ALLOW CABINET TO BE EASILY REMOVED FROM THE QUAZITE BOX.
6. FINAL DIMENSIONS WILL ALLOW FOR PLACEMENT WITHIN THE QUAZITE, AND ALLOW SUFFICIENT SPACE FOR ALL EQUIPMENT WITHIN THE ENCLOSURE.

#### 2.4 LABELING

- D. COMPLY WITH ANS/ITIA-606-A AND UL 989 FOR A SYSTEM OF LABELING MATERIALS, INCLUDING LABEL STOCKS, LAMINATING ADHESIVES, AND INKS USED BY LABEL PRINTERS.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. COMPLY WITH NECA 1.
- B. COMPLY WITH BICSI TDDM FOR LAYOUT AND INSTALLATION OF COMMUNICATIONS EQUIPMENT ROOMS.
- C. CABLE TRAYS: COMPLY WITH NEMA VE 2 AND TIA/EIA-569-A-7.

#### D. CABLE MANAGEMENT

7. EACH EQUIPMENT CABINET SHALL INCLUDE CABLE MANAGEMENT FOR OTH FIBER AND COPPER CABLING. VELCRO CABLE TIES SHALL BE PROVIDED INSIDE THE RACK CHANNELS TO SUPPORT THE HORIZONTAL CABLE.
- E. MOUNTED THE ENCLOSURE USING STAINLESS STEEL UNISTRUT SUPPORTS.
- F. BUNDLE, LACE, AND TRAIN CONDUCTORS AND CABLES TO TERMINAL POINTS WITHOUT EXCEEDING MANUFACTURER'S LIMITATIONS ON BENDING RADI. INSTALL LACING BARS AND DISTRIBUTION SPOOLS.

#### 3.2 GROUNDING

- A. COMPLY WITH ANSI-J-STD-607-A.
- B. BOND METALLIC EQUIPMENT TO THE GROUNDING BUS BAR, USING NOT SMALLER THAN NO. 8 AWG EQUIPMENT GROUNDING CONDUCTOR.

#### 3.3 IDENTIFICATION

- A. IDENTIFY SYSTEM COMPONENTS, WIRING, AND CABLING COMPLYING WITH TIA/EIA-606-A. LABELS SHALL BE PREPRINTED OR COMPUTER-PRINTED TYPE.

## SECTION 271300 - COMMUNICATIONS BACKBONE CABLING

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. SECTION INCLUDES:

1. 9/125-MICROMETER SINGLE MODE OPTICAL FIBER CABLING OPTICAL FIBER CABLING.
2. CABLE CONNECTING HARDWARE, PATCH PANELS, AND CROSS-CONNECTS.
3. CABLING IDENTIFICATION PRODUCTS.

##### B. RELATED REQUIREMENTS:

1. DIVISION 27 SECTION "PATHWAYS FOR



DIVISION 27 - COMMUNICATIONS

PART 2 - PRODUCTS

2.1 PRODUCT WARRANTY AND APPLICATION ASSURANCE

A. THE STRUCTURED CABLING SYSTEM (SCS) SHALL BE PROVIDED WITH AN EXTENDED PRODUCT WARRANTY AND APPLICATION ASSURANCE PROGRAM GUARANTEEING PERFORMANCE AND OPERATION OF THE SCS (INCLUDING OPTICAL FIBER AND COPPER CABLING).

B. EXTENDED PRODUCT WARRANTY

- THE EXTENDED PRODUCT WARRANTY COVERS PRODUCT DEFECTS FOR ALL PASSIVE COMPONENTS OF THE SCS. PASSIVE COMPONENTS ARE DEFINED AS THOSE EXHIBITING NO GAIN OR CONTRIBUTING NO ENERGY. THE MANUFACTURER SHALL WARRANT, FROM THE DATE A REGISTRATION CERTIFICATE IS ISSUED BY THE MANUFACTURER TO THE END-USER, THE FOLLOWING:
  - THE PASSIVE COMPONENTS THAT COMPRISE THE REGISTERED SCS WILL BE FREE FROM MANUFACTURING DEFECTS IN MATERIAL OR WORKMANSHIP UNDER NORMAL AND PROPER USE.
  - ALL SCS APPROVED PASSIVE CABLING PRODUCTS THAT COMPRISE THE REGISTERED SCS SOLUTION EXCEED THE SPECIFICATION OF ANSI/TIA-568-C.1, ANSI/TIA-568-C.2 AND ANSI/TIA-568-C.3 STANDARDS AND WILL CONFORM TO THE GUARANTEED MINIMUM PERFORMANCE SPECIFICATIONS PUBLISHED WITHIN THE MANUFACTURER'S ASSOCIATED PRODUCT DATA SHEET AND WARRANTY PLATFORM DOCUMENTATION IN EFFECT AT THE TIME THE REGISTRATION CERTIFICATE IS ISSUED FOR THE DURATION OF THE EXTENDED WARRANTY PERIOD.

2.2 OPTICAL FIBER CABLING

A. GENERAL

- THE CABLE MUST MEET THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE (NEC) SECTION 770.
- PLENUM APPLICATIONS - APPLICABLE FLAME TEST: UL 910 (NFPA 282-1994)

B. OPTICAL FIBER CHARACTERISTICS

- ACCEPTABLE MANUFACTURERS
  - CORNING
  - OF S
  - PANDUIT
  - SUPERIOR ESSEX
  - SYSTIMAX
  - BERK-TEK
  - BELDEN
- ALL FIBERS MUST BE USABLE AND MEET THE REQUIRED SPECIFICATIONS. ALL OPTICAL GLASS SHALL BE MANUFACTURED IN THE US BY CORNING OPTICAL FIBER PRODUCTS OR OFS.
- ALL FIBER CABLES MUST BE FLAME RETARDANT AND MEET UL-1666 OFNR SPECIFICATION
- ALL OPTICAL FIBERS SHALL BE SUFFICIENTLY FREE OF SURFACE IMPERFECTIONS AND OCCUSIONS TO MEET THE OPTICAL, MECHANICAL, AND ENVIRONMENTAL REQUIREMENTS OF THIS SPECIFICATION
- A SILICA CORE SURROUNDED BY A CONCENTRIC SILICA GLASS CLADDING SHALL COMPRISE EACH OPTICAL FIBER. THE FIBER SHALL BE A MATCHED CLAD DESIGN MANUFACTURED BY THE OUTSIDE VAPOR DEPOSITION PROCESS (OVD).
- EACH OPTICAL FIBER SHALL BE PROOF TESTED BY THE FIBER MANUFACTURER AT A MINIMUM OF 100 KPSI (0.7 GNM2). THE FIBER SHALL BE COATED WITH A DUAL LAYER ACRYLATE PROTECTIVE COATING. THE COATING SHALL BE IN PHYSICAL CONTACT WITH THE CLADDING SURFACE.
- THE ATTENUATION SPECIFICATION SHALL BE A MAXIMUM VALUE FOR EACH CABLED FIBER AT 23 SC ON THE ORIGINAL SHIPPING REEL.
- THE CABLE SHALL BE REINFORCED WITH ARAMID YARN FOR SUPERIOR STRENGTH.
- ALL PLENUM-RATED CABLE SHALL MEET OR EXCEED THE REQUIREMENTS OF NFPA-262 STANDARD METHOD OF TEST FOR FLAME TRAVEL AND SMOKE OF WIRES AND CABLES FOR USE IN AIR-HANDLING SPACES, AND ARE OFNP LISTED WITH UNDERWRITERS LABORATORY.
- ALL LOOSE-TUBE CONSTRUCTED OPTICAL FIBER CABLE SHALL MEET THE FOLLOWING REQUIREMENTS:
  - THE CABLE SHALL BE CONSTRUCTED WITH INDUSTRY STANDARD 3MM BUFFER TUBES, STRANDED AROUND A CENTRAL STRENGTH MEMBER.
  - THE BUFFER TUBES SHALL BE COMPATIBLE WITH STANDARD HARDWARE, CABLE ROUTING AND FAN-OUT KITS.
  - THE CABLE CORE SHALL BE WATER BLOCKED WITHOUT THE USE OF FLOODING COMPOUNDS.

C. INDOOR/OUTDOOR RISER-RATED LOOSE BUFFERED OPTICAL FIBER CABLE.

- FIBER BUNDLES WRAPPED IN WATER SWELLABLE YARNS WITHIN LOOSE TUBES.
- WATER SWELLABLE YARNS ROUTED BETWEEN AND SURROUNDING THE SEPARATE TUBES
- COLOR-CODED FIBERS AND BUFFER TUBES.
- RIPCORD
- DIELECTRIC STRENGTH MEMBERS ALL SURROUNDED IN A UV-RESISTANT/FLAME-RETARDANT OUTER JACKET.
- ALL-DIELECTRIC CONSTRUCTION.
- FLEXIBLE BUFFER TUBES.
- UL-LISTED OFNR (UL1600) AND CSA-LISTED FT-4.

D. INDOOR/OUTDOOR PLENUM-RATED TIGHT BUFFERED OPTICAL FIBER CABLE.

- THE CABLE SHALL BE A TOTALLY DRY TIGHT BUFFERED WATER-PROOF CENTRAL CORE CABLE.
- THE CABLE SHALL NOT CONTAIN ANY GEL, FILLING OR FLOODING COMPOUND, GREASE OR OTHER FLAMMABLE WATER BLOCKING FLUIDS.
- THE CABLE SHALL USE ARAMID YARNS FOR STRENGTH IN CONJUNCTION WITH A GLASS REINFORCED POLYMER (GRP) CENTRAL STRENGTH MEMBER (CSM).
- THE ARAMID YARNS SHALL SPECIALLY PREPARED WITH AN AGENT THAT SHALL PROVIDE THE WATER-PROOF ATTRIBUTE OF THE CABLE.
- THE PLENUM-RATED INDOOR/OUTDOOR CABLE SHALL MEET ALL BELLCORE GR-409 REQUIREMENTS.
- THE PLENUM-RATED INDOOR/OUTDOOR CABLE SHALL MEET OR EXCEED THE REQUIREMENTS OF NFPA-262 STANDARD METHOD OF TEST FOR FLAME TRAVEL AND SMOKE OF WIRES AND CABLES FOR USE IN AIR-HANDLING SPACES, AND ARE OFNP LISTED WITH UNDERWRITERS LABORATORY.
- ALL CABLES MUST MEET THE MECHANICAL AND ENVIRONMENTAL REQUIREMENTS OF TELCORDIA GR-20-CORE ISSUE 2 GENERIC REQUIREMENTS FOR OPTICAL FIBER AND OPTICAL FIBER CABLE AND ANSWEICA S-87-640 STANDARD FOR OPTICAL FIBER OUTSIDE PLANT COMMUNICATIONS CABLE.

E. OPTICAL FIBER OUTSIDE PLANT (OSP) CABLE

- THIS CABLE IS DESIGNED TO CONNECT EQUIPMENT OR FACILITIES THAT ARE SEPARATED BY AN OUTDOOR TYPE ENVIRONMENT.
- IT SHALL BE SUITABLE FOR UNDERGROUND, AERIAL, DIRECT BURIED, TUNNEL, OR TRAY INSTALLATIONS.
- OUTSIDE PLANT CABLING SHALL BE OF LOOSE TUBE CONSTRUCTION.
- THE CABLE SHALL BE CONSTRUCTED WITH INDUSTRY STANDARD 3MM BUFFER TUBES, STRANDED AROUND A CENTRAL STRENGTH MEMBER.
- THE BUFFER TUBES SHALL BE COMPATIBLE WITH STANDARD HARDWARE, CABLE ROUTING AND FAN-OUT KITS.
- THE CABLE CORE SHALL BE WATER BLOCKED WITHOUT THE USE OF FLOODING COMPOUNDS.
- THE CABLE SHALL BE DESIGNED FOR POINT-TO-POINT APPLICATIONS AS WELL AS MIDSPAN ACCESS, PROVIDE A HIGH-LEVEL OF PROTECTION FOR FIBER INSTALLED IN THE OUTSIDE PLANT ENVIRONMENT.

F. PACKING AND SHIPPING

- THE CABLE SHALL BE PACKAGED IN CARTONS AND/ OR WOUND ON SPOOLS OR REELS. EACH PACKAGE SHALL CONTAIN ONLY ONE CONTINUOUS LENGTH OF CABLE WITH SUFFICIENT LENGTH FOR ENTIRE RUN WITHOUT SPLICING. THE PACKAGING SHALL BE CONSTRUCTED SO AS TO PREVENT DAMAGE TO THE CABLE DURING SHIPPING AND HANDLING.
- TESTS TALS SHALL BE AT LEAST 2 METERS LONG. THE INNER END SHALL BE FASTENED SO AS TO PREVENT THE CABLE FROM BECOMING LOOSE DURING SHIPPING AND INSTALLATION. TALS SHALL BE PERMANENTLY MARKED WITH AN IDENTIFICATION NUMBER THAT IT CAN BE USED BY THE MANUFACTURER TO TRACE THE MANUFACTURING HISTORY OF THE CABLE AND THE FIBER.

2.3 MULTIMODE OPTICAL FIBER

A. MULTIMODE OPTICAL FIBER SHALL MEET THE OM3 LASER OPTIMIZED 50-MICRON MULTIMODE OPTICAL FIBER CABLE (10GB/S @ 300M) STANDARDS FOR PERFORMANCE.

B. MULTIMODE FIBER SHALL MEET THE FOLLOWING STANDARDS:

- EIA/TIA-492AAAD, "DETAIL SPECIFICATION FOR 850-NM LASER-OPTIMIZED 50-M CORE DIAMETER/125-M CLADDING DIAMETER CLASS 1A, GRADED-INDEX MULTIMODE OPTICAL FIBERS."
- ISO/IEC 11801 TYPE OM3 FIBER
- IEC 60793-2-10 TYPE A1A.3 FIBER

C. LASER 50-MICRON OPTICAL FIBER CABLE SHALL HAVE THE SAME SPECIFIED PERFORMANCE AS 50-MICRON OPTICAL FIBER CABLE SPECIFIED ABOVE EXCEPT THE FOLLOWING PERFORMANCE AND GEOMETRY VALUES.

D. THE MAXIMUM CABLED FIBER ATTENUATION SHALL BE: 2.50DB/KM AT 850 NM AND 1.0 DB/KM AT 1300 NM.

E. THE CABLED LASER EFFECTIVE MODAL BANDWIDTH (EMB) SHALL BE ≥4700 MHZ/KM AT 850 NM AND ≥500 MHZ/KM AT 1310 NM.

F. THE MINIMUM BANDWIDTH DURING OVERFILLED LAUNCH (OFL) CONDITIONS SHALL BE ≥3500 MHZ/KM AT 850 NM AND ≥500 MHZ/KM AT 1310 NM

G. THE OPTICAL FIBER SHALL SUPPORT THE FOLLOWING APPLICATIONS AT THE ASSOCIATED DISTANCES:

- 10 GIGABIT ETHERNET (802.3AE)
  - 850 NM SERIAL LASER (10GBASE-SR & 10GBASE-SW): 300M
  - 1310 NM CWDM LASERS (10GBASE-LX): 300M
- 1 GIGABIT ETHERNET
  - 850 NM SERIAL LASER (1000BASE-SX): 1040M
  - 1310 NM SERIAL LASERS (1000BASE-LX): 800M
- 100 MEGABIT ETHERNET
  - 850 NM SERIAL LED (10GBASE-SX): 300M

- 1310 NM SERIAL LED (10GBASE-FX): 2000M
- 10 MEGABIT ETHERNET: 850 NM LED (10BASE-FL): 1250M
- 10 GIGABIT FIBRE CHANNEL (10GFC REV 3.0)

- 850 NM SERIAL LASER (1200-MSE-SNS): 300M
- 12010 NM WDM LASERS (1200-M5-LCS3): 300M

2.4 SINGLE-MODE OPTICAL FIBER

A. SINGLE-MODE OPTICAL FIBER IN TIGHT BUFFER CABLES

- THE SINGLE-MODE FIBER SHALL MEET EIA/TIA-492CAAB, "DETAIL SPECIFICATION FOR CLASS IV A DISPERSION-UN-SHIFTED SINGLE-MODE OPTICAL FIBERS WITH LOW WATER PEAK" AND ITU-T G.652.C, "CHARACTERISTICS OF SINGLE-MODE OPTICAL FIBER CABLE."
- THE CLADDING DIAMETER SHALL BE 125.0 ± 0.7 MM. THE CLADDING NON-CIRCULARITY SHALL BE ≤ 0.7%.
- THE CORE-TO-CLADDING CONCENTRICITY SHALL BE 0.5 MM.
- THE COATING OUTSIDE DIAMETER SHALL BE 245 ± 5 MM.
- THE COLORED FIBER NOMINAL DIAMETER SHALL BE 253 - 259 MM.
- THE MODE FIELD DIAMETER AT 1550 NM SHALL BE 10.4 ± 0.5 MM.
- THE FIBER CURL RADIUS OF CURVATURE SHALL BE 4.0 M.
- THE OPTICAL FIBER REFRACTIVE INDEX PROFILE SHALL BE GRADED. THE NUMERICAL APERTURE SHALL BE 0.200 ± 0.015, 4.0 M.
- THE MAXIMUM CABLED FIBER ATTENUATION SHALL BE ≤ 1.0 DB/KM AT 1310 NM, ≤ 1.0 DB/KM AT 1383 ± 3 NM AND ≤ 0.75 DB/KM AT 1550 NM.
- THE POINT OF DISCONTINUITY SHALL BE ≤ 0.5 DB AT 1310 NM AND ≤ 0.5 DB AT 1550 NM.
- THE MACRO BEND ATTENUATION SHALL BE ≤ 0.05 DB AT 1550 NM AT 1 TURN AROUND A MANDREL WITH AN OD OF 32 ± 2 MM; ≤ 0.05 DB AT 1310 NM AND ≤ 0.10 DB AT 1550 NM AT 100 TURNS AROUND A MANDREL WITH AN OD OF 50 ± 2 MM; AND ≤ 0.05 DB AT 1550 NM AND ≤ 0.05 DB AT 1625 NM AT 100 TURNS AROUND A MANDREL WITH AN OD OF 60 ± 2 MM.
- THE CABLE CUTOFF WAVELENGTH (COW) SHALL BE ≤ 1280 NM.
- THE ZERO DISPERSION WAVELENGTH (0) SHALL BE 1302 ± 1302 ± 1322 NM.
- THE ZERO DISPERSION SLOPE (S0) SHALL BE ≤ 0.089 PS/(NM\*KM).
- THE TOTAL DISPERSION SHALL BE ≤ 3.5 PS/(NM\*KM) AT 1285-1330 NM, ≤ 17.5 PS/(NM\*KM) AT 1550 NM AND ≤ 21.5 PS/(NM\*KM) AT 1625 NM.
- THE CABLED POLARIZED MODE DISPERSION SHALL BE ≤ 0.2 (PS/KM).
- THE OPTICAL FIBER SHALL SUPPORT IEEE 802.3 GBE - 1300 NM LASER DISTANCES AT 5000 M.
- THE WATER PEAK ATTENUATION AT 1383 ± 3 NM AT 1.0 DB/KM.

B. SINGLE-MODE OPTICAL FIBER IN LOOSE TUBE AND RIBBON CABLES

- THE SINGLE-MODE FIBER SHALL MEET EIA/TIA-492CAAA, "DETAIL SPECIFICATION FOR CLASS IVA DISPERSION-UN-SHIFTED SINGLE-MODE OPTICAL FIBERS," AND ITU RECOMMENDATION G.652.D, "CHARACTERISTICS OF A SINGLE-MODE OPTICAL FIBER CABLE."
- THE CLADDING DIAMETER SHALL BE 125.0 ± 0.7 MM.
- THE CORE-TO-CLADDING CONCENTRICITY SHALL BE 0.5 MM.
- THE CLADDING NON-CIRCULARITY SHALL BE ≤ 0.7%.
- THE MODE FIELD DIAMETER SHALL BE 9.2 ± 0.4 MM AT 1330 NM, AND 10.4 ± 0.5 MM AT 1500 NM.
- THE COATING OUTSIDE DIAMETER SHALL BE 245 ± 5 MM.
- THE COLORED FIBER NOMINAL DIAMETER SHALL BE 253 - 259 MM.
- THE FIBER CURL RADIUS OF CURVATURE SHALL BE 4.0 M.
- THE CABLED FIBER ATTENUATION SHALL BE ≤ 0.4 DB/KM AT 1310 NM, AND ≤ 0.3 DB/KM AT 1500 NM.
- THE POINT OF DISCONTINUITY SHALL BE ≤ 0.1 DB AT 1310 NM AND ≤ 0.1 DB AT 1550 NM.
- THE MACRO BEND ATTENUATION SHALL BE ≤ 0.05 DB AT 1550 NM AT 1 TURN AROUND A MANDREL WITH AN OD OF 32 ± 2 MM; ≤ 0.05 DB AT 1310 NM AT 100 TURNS AROUND A MANDREL WITH AN OD OF 50 ± 2 MM; ≤ 0.10 DB AT 1550 NM AT 100 TURNS AROUND A MANDREL WITH AN OD OF 50 ± 2 MM; ≤ 0.05 DB AT 1550 NM AT 100 TURNS AROUND A MANDREL WITH AN OD OF 60 ± 2 MM; AND ≤ 0.05 DB AT 1625 NM AT 100 TURNS AROUND A MANDREL WITH AN OD OF 60 ± 2 MM.
- THE CABLE CUTOFF WAVELENGTH (COW) SHALL BE ≤ 1280 NM.
- THE ZERO DISPERSION WAVELENGTH (0) SHALL BE 1302 ± 1302 ± 1322 NM.
- THE ZERO DISPERSION SLOPE (S0) SHALL BE ≤ 0.089 PS/(NM\*KM).
- THE TOTAL DISPERSION SHALL BE ≤ 3.5 PS/(NM\*KM) AT 1285-1330 NM, ≤ 17.5 PS/(NM\*KM) AT 1550 NM AND ≤ 21.5 PS/(NM\*KM) AT 1625 NM.
- THE CABLED POLARIZED MODE DISPERSION SHALL BE ≤ 0.2 (PS/KM).
- THE OPTICAL FIBER SHALL SUPPORT IEEE 802.3 GBE - 1300 NM LASER DISTANCES AT 5000 M.
- THE WATER PEAK ATTENUATION AT 1383 ± 3 NM AT ≤ 0.4 DB/KM.

2.5 OPTICAL FIBER CONNECTORS

A. GENERAL CONNECTOR REQUIREMENTS

- COMPLY WITH OPTICAL FIBER CONNECTOR INTERMATEABILITY STANDARDS (FOCIS) SPECIFICATIONS OF ANSI/TIA-604 AND APPROPRIATE SUB SECTIONS. COMPLY WITH ANSI/TIA-568-C.3.
- MULTI-MODE FIBER OPTIC CONNECTORS SHALL BE FACTORY OR FIELD INSTALLED.
- FIBER OPTIC CONNECTORS SHALL BE QUICK-CONNECT MECHANICAL TERMINATED CONNECTORS.
- MULTI-MODE FIBER OPTIC CONNECTORS SHALL BE DUPLEX LC STYLE CONNECTORS.
- FIBER CONNECTORS SHALL HAVE < 0.2 DB CHANGE AFTER 500 RE-MATINGS.
- THE CONNECTOR OPERATING TEMPERATURE SHALL BE: -40 TO 167°F (-4 TO 75°C).
- CONNECTORS SHALL HAVE A TEMPERATURE STABILITY (-4C TO +75C) INSERTION LOSS CHANGE OF <0.1 DB.

B. ACCEPTABLE MANUFACTURERS

- PANDUIT OPTICOM, BASIS OF DESIGN
  - PANDUIT FAPW6BUDSCZ, DUPLEX LC, BLUE (9.0UM)
  - PANDUIT FAPW6AOLDCZ, DUPLEX LC, AQUA, (50UM)
- BELDEN
- COMMSCOPE
- SIEMON
- HUBBELL

C. LC OPTICAL FIBER CONNECTORS

- THE CONNECTOR SHALL BE AVAILABLE FOR SINGLE-MODE OS2 AND MULTIMODE OM3 FIBER OPTIC CABLES.
- THE CONNECTOR SHALL UTILIZE A PHOSPHOR BRONZE OR ZIRCONIA FERRULE FOR FIBER ALIGNMENT.
- THE CONNECTOR SHALL HAVE PUSH-PULL HARDWARE FOR EASIER CONNECTIONS, AS WELL AS HIGH OPTICAL STABILITY.
- THE CONNECTOR SHALL BE DUPLEX TYPE, WITH TWO LC CONNECTORS IN ONE MODULE SPACE.
- LC TYPE CONNECTORS SHALL HAVE AN AVERAGE LOSS OF LESS THAN 0.1DB FOR MULTI-MODE CABLING.

2.6 OPTICAL FIBER HOUSINGS

A. ALL OPTICAL FIBER HARDWARE SHALL BE MANUFACTURED BY THE SAME MANUFACTURER AS THE OPTICAL FIBER CABLING UNLESS SPECIFIED OTHERWISE.

B. GENERAL OPTICAL FIBER HOUSING REQUIREMENTS

- OPTICAL FIBER HOUSING SHALL BE AVAILABLE FOR CROSS-CONNECTION OR INTER-CONNECTING PURPOSES. THE UNITS SHALL PROVIDE FOR DIRECT CONNECTIONIZATION AND PIGTAIL SPLICING. ALL CONNECTOR HOUSINGS SHALL BE MEET THE DESIGN REQUIREMENTS OF ANSI/TIA/EIA-568 AND THE PLASTICS FLAMMABILITY REQUIREMENTS OF UL 94 V-0.
- EACH OPTICAL FIBER HOUSING SHALL ACCEPT A LABELING SCHEME THAT COMPLIES WITH ANSI/TIA-606-A.
- EACH OPTICAL FIBER HOUSING SHALL INCLUDE CLAMSHELL-TYPE CLAMPING MECHANISMS TO PROVIDE CABLE STRAIN RELIEF. EACH CABLE CLAMP SHALL ACCEPT ONE CABLE WITH AN OD OF 9.5 - 28.6 MM. EACH CABLE CLAMP SHALL ALSO HANDLE MULTIPLE SMALL FIBER COUNT CABLES WHEN USED WITH THE MULTIPLE CABLES INSERT; THESE CLAMPS SHALL HAVE A CAPACITY OF FIVE CABLES WITH AN OD OF 1.02 MM. CABLE CLAMPS SHALL BE PROVIDED AS REQUIRED BY THE PANEL/MODULE LOADING OF THE CONNECTOR HOUSING.
- OPTICAL FIBER HOUSINGS SHALL BE MANUFACTURED USING 16 GAUGE ALUMINUM OR EQUIVALENT FOR STRUCTURAL INTEGRITY. HOUSINGS SHALL BE FINISHED WITH A WRINKLED BLACK POWDER COAT FOR DURABILITY.

C. CONNECTOR HOUSINGS

- CONNECTOR HOUSINGS SHALL BE MOUNTABLE IN AN EIA-310 COMPATIBLE 19" RACK. HOUSING SHALL BE OF AVAILABLE IN 1RU AND 2RU, HEIGHTS. CONNECTOR HOUSING SHALL NOT EXCEED A DEPTH OF 12".
- CONNECTOR HOUSINGS SHALL BE MODULAR IN NATURE WITH SEPARATE SPLICING, JUMPER MANAGEMENT AND COMBINATION CONNECTOR SPLICING HOUSINGS AVAILABLE.
- CONNECTOR HOUSINGS SHALL BE AVAILABLE IN 4 AND 8 INSERT FIBER ADAPTER PANEL INSERTS SHALL BE AVAILABLE IN 6 AND 12 CONNECTOR PANEL CONFIGURATIONS.
- THE CONNECTOR HOUSINGS SHALL INCLUDE JUMPER/ PATCH CORD ROUTING GUIDES TO ALLOW A TRANSITION AND SEGREGATION POINT FOR CORDS EXITING THE FRONT AND BACK OF THE HOUSING.
- FEEDER CABLE ENTRIES SHALL HAVE A GROMMET INSTALLED TO MINIMIZE DUST/ WATER INTRUSION.
- CONNECTOR HOUSINGS DOORS SHALL HAVE REMOVABLE HINGED FRONT AND REAR DOORS.
- CONNECTOR HOUSINGS SHALL INCLUDE PROVISIONS FOR MOUNTING FIBER FAN-OUT DEVICES AND FACTORY INSTALLED CABLE STUBS FOR MULTIPLE CABLE AND CONNECTOR TYPES.

2.7 CONNECTOR PANELS AND MODULES

A. CONNECTOR PANELS

- CONNECTOR PANELS SHALL BE MANUFACTURED BY THE SAME MANUFACTURER AS THE CONNECTOR HOUSING.
- CONNECTOR PANELS SHALL UTILIZE A SINGLE MOUNTING FOOTPRINT.
- CONNECTOR PANELS SHALL BE AVAILABLE IN FOUR, SIX, EIGHT, AND TWELVE CONNECTOR ADAPTOR CONFIGURATIONS.
- CONNECTOR PANELS SHALL BE ATTACHED TO THE CONNECTOR HOUSING WITH A MINIMUM OF TWO PUSH-PULL STYLE LATCHES.
- CONNECTOR PANELS SHALL BE AVAILABLE IN INDUSTRY STANDARD SINGLE FIBER AND SMALL FORM FACTOR MULTI-FIBER ADAPTERS, INCLUDING SC DUPLEX, ST COMPATIBLE, MTRJ AND LC.
- BLANK PANELS SHALL BE PROVIDED TO FILL EACH UNUSED SPACE WITHIN THE HOUSING.
- CONNECTOR PANELS SHALL BE MANUFACTURED FROM 16 GAUGE COLD ROLLED STEEL OR INJECTION MOLDED POLYCARBONATE.

B. CONNECTOR MODULES

- THE CONNECTOR MODULE SHALL BE A MODULAR REMOVABLE CASE CONTAINING OPTICAL FIBER CONNECTOR ADAPTERS AND PROVISIONS FOR STRAIN-RELIEF, SLACK STORAGE, AND THE FURCATION OF FIBER OPTIC CABLES.
- CONNECTOR MODULES SHALL BE MANUFACTURED BY THE SAME MANUFACTURER AS THE CONNECTOR HOUSING.
- CONNECTOR MODULES SHALL CONSIST OF A PANEL INCORPORATED INTO A PROTECTIVE CASE WITH A REMOVABLE COVER FOR ACCESS TO THE INTERIOR CONNECTORS AND FIBERS.
- CONNECTOR MODULES SHALL INCLUDE A FIBER RETAINING SPOOL FOR MANAGING SLACK FIBER.
- CONNECTOR MODULES SHALL UTILIZE A SINGLE MOUNTING FOOTPRINT.
- CONNECTOR MODULES SHALL BE AVAILABLE IN THREE, FOUR, SIX, EIGHT, AND TWELVE CONNECTOR ADAPTOR CONFIGURATIONS.
- CONNECTOR MODULES SHALL BE ATTACHED TO THE CONNECTOR HOUSING WITH A MINIMUM OF TWO PUSH-PULL STYLE LATCHES.
- CONNECTOR PANELS SHALL BE AVAILABLE IN INDUSTRY STANDARD SINGLE FIBER AND SMALL FORM FACTOR MULTI-FIBER ADAPTERS, INCLUDING SC DUPLEX, ST COMPATIBLE, MTRJ AND LC TYPE CONNECTORS.
- CONNECTOR MODULES SHALL BE MANUFACTURED FROM 16 GAUGE COLD ROLLED STEEL OR INJECTION MOLDED POLYCARBONATE.
- CONNECTOR MODULES SHALL BE AVAILABLE IN THE FOLLOWING CONFIGURATIONS: ADAPTER MODULES, PIGTAIL MODULES, AND PRE-TERMINATED SYSTEM MODULES.

C. ACCEPTABLE MANUFACTURERS

- PANDUIT OPTICOM, BASIS OF DESIGN
  - PANDUIT FAP6 SERIES, 6 PORT DUPLEX LC, YELLOW (9UM)
- BELDEN
- COMMSCOPE
- SIEMON
- HUBBELL

PART 3 - EXECUTION

3.1 WORKMANSHIP

- COMPONENTS OF THE BACKBONE CABLING SYSTEM SHALL BE INSTALLED IN A NEAT, WORKMANLIKE MANNER.
- WIRING COLOR CODES SHALL BE STRICTLY OBSERVED AND TERMINATIONS SHALL BE UNIFORM THROUGHOUT THE SYSTEM.
- IDENTIFICATION MARKINGS AND SYSTEMS SHALL BE UNIFORM.

3.2 INSTALLATION

- THE CONTRACTOR SHALL ENSURE THAT ALL RECOMMENDED CABLE PULLING TENSIONS AND PULLING BENDING RADIUS ARE NOT EXCEEDED. ANY CABLE BENT OR KINKED TO A RADIUS LESS THAN THE RECOMMENDED DIMENSION SHALL NOT BE INSTALLED. ANY CABLE THAT IS BENT OR KINKED TO A RADIUS LESS THAN THE RECOMMENDED DIMENSION DURING INSTALLATION SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.
- THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL PROVIDE LEVELS OF MANPOWER NECESSARY TO MEET ALL CONSTRUCTION SCHEDULES.
- THE CONTRACTOR SHALL MAINTAIN A CURRENT COPY OF THE DESIGN DRAWINGS, SPECIFICATIONS, INSTALLATION SCHEDULE, EQUIPMENT SUBMITTALS AND SHOP DRAWINGS AT THE JOB SITE AT ALL TIMES. THESE DOCUMENTS SHALL BE MADE AVAILABLE TO THE OWNER/CONSTRUCTION MANAGER AT THEIR REQUEST.
- D. ALL INSTALLATION SHALL BE DONE IN CONFORMANCE WITH ANSI/TIA 568-B STANDARDS, FEDERAL AND LOCAL STANDARDS AND THE CABLE MANUFACTURERS INSTALLATION GUIDELINES.
- E. THE CONTRACTOR SHALL MAKE PROVISIONS SO THAT ALL CABLING IS STORED WITHIN A TEMPERATURE CONTROLLED SPACE TO ENSURE THAT CABLING IS UNSPOOLED, MANIPULATED, AND WORKED WITH ONLY WHEN THE CABLING IS WITHIN THE MANUFACTURERS' INSTALLATION TEMPERATURE SPECIFICATIONS AND FREE OF CONDENSATION.
- F. CONTRACTOR SHALL TERMINATE ALL WIRES AND FIBERS.
- G. MISCELLANEOUS EQUIPMENT: THE CONTRACTOR SHALL PROVIDE ANY NECESSARY SCREWS, ANCHORS, CLAMPS, THE WRAPS, DISTRIBUTION RINGS, WIRE MOLDING (ER & TR LOCATIONS), MISCELLANEOUS GROUNDING AND SUPPORT HARDWARE, ETC., NECESSARY TO FACILITATE THE INSTALLATION OF THE SYSTEM.
- H. SPECIAL EQUIPMENT AND TOOLS: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH ANY SPECIAL INSTALLATION EQUIPMENT OR TOOLS NECESSARY TO PROPERLY COMPLETE THE SYSTEM. TOOLS SHALL INCLUDE, BUT ARE NOT LIMITED TO:

- TOOLS FOR TERMINATING CABLES.
- TESTING AND SPLICING EQUIPMENT FOR COPPER/FIBER CABLES.
- COMMUNICATION DEVICES.
- JACK STANDS FOR CABLE REELS.
- CABLE WENCHES.

I. IDENTIFICATION

- IDENTIFY SYSTEM COMPONENTS, WIRING, AND CABLING COMPLYING WITH TIA/EIA-606-A.
- LABELS SHALL BE PREPRINTED OR COMPUTER-PRINTED TYPE WITH PRINTING AREA AND FONT COLOR THAT CONTRASTS WITH CABLE JACKET COLOR BUT STILL COMPLIES WITH REQUIREMENTS IN TIA/EIA 606-A, FOR THE FOLLOWING: LABELS USE FLEXIBLE LAMINATED VINYL OR POLYESTER THAT FLEXES AS CABLES ARE BENT.

J. AS BUILT DOCUMENTATION

- UPON COMPLETION OF THE PROJECT, CONTRACTOR IS TO PREPARE "AS BUILT" DOCUMENTATION SHOWING ACTUAL SITE CONDITIONS AND INSTALLATION AS CONSTRUCTED.
- PROVIDE COPIES OF SUCH DOCUMENTATION TO THE OWNER AS MENTIONED BELOW.

- UPON COMPLETION OF SYSTEM INSTALLATION, CONTRACTOR SHALL PROVIDE TO OWNER FOR ITS RECORDS THE FOLLOWING:
  - TR AND ER DIAGRAMS WHICH SHALL INCLUDE:
    - CABLE ROUTING
    - POSITION OF ALL COMPONENTS AND
    - DETAILED LAYOUT OF THE WALL FIELD
    - LABELING PLAN.
  - RISER DIAGRAM

3.3 PENETRATIONS OF WALLS, FLOORS AND CEILINGS

A. PRIOR CONSENT. THE CONTRACTOR SHALL MAKE NO PENETRATION OF FLOORS, WALLS OR CEILING WITHOUT THE PRIOR CONSENT FROM THE OWNER.

B. SEALING PENETRATIONS - THE AREA AROUND THE EXTERIOR OF THE SLEEVE SHALL BE SEALED BY THE CONTRACTOR WHO INSTALLED THE SLEEVE, THE AREA INTERNAL TO THE SLEEVE SHALL BE SEALED BY THE CONTRACTOR WHO PULLED OR PLACED THE CABLES.

- WHERE PENETRATIONS THROUGH ACOUSTICAL WALLS OR OTHER WALLS FOR CABLEWAYS HAVE BEEN PROVIDED FOR THE CONTRACTOR OR MADE BY THE CONTRACTOR SUCH PENETRATIONS SHALL BE SEALED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE CODE REQUIREMENTS AND AS DIRECTED BY OWNER'S CONSTRUCTION MANAGER OR CONSTRUCTION MANAGER.
- WHERE PENETRATIONS THROUGH FIRE-RATED WALLS FOR CABLEWAYS HAVE BEEN PROVIDED FOR THE CONTRACTOR OR MADE BY THE CONTRACTOR SUCH PENETRATIONS SHALL BE SEALED BY THE CONTRACTOR AS REQUIRED BY CODE AND AS DIRECTED BY OWNER'S CONSTRUCTION MANAGER OR CONSTRUCTION MANAGER.

3.4 TESTING / WARRANTY

A. OPTICAL FIBER CABLE TESTING

- ALL FIBER TESTING SHALL BE PERFORMED ON ALL FIBERS IN THE COMPLETED END TO END SYSTEM. TESTING SHALL BE BIDIRECTIONAL.
- TESTING SHALL CONSIST OF A BIDIRECTIONAL END TO END OTDR TRACE PERFORMED PER EIA/TIA 455-61 OR A BIDIRECTIONAL END TO END POWER METER TEST PERFORMED PER EIA/TIA 455-53A. OPTICAL CERTIFICATION TESTERS MAY BE USED IF APPROVED IN ADVANCE BY THE CONSTRUCTION MANAGER.
- THE SYSTEM LOSS MEASUREMENTS SHALL BE PROVIDED AT (850 AND 1310 NANOMETERS FOR MULTIMODE FIBERS).
- PRE-INSTALLATION CABLE TESTING
  - THE CONTRACTOR SHALL TEST ALL FIBER CABLE PRIOR TO THE INSTALLATION OF THE CABLE AND PROVIDE THE CONSTRUCTION MANAGER OF RECORD WITH THOSE TEST RESULTS PRIOR TO INSTALLATION.
  - THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR THE REPLACEMENT OF THE CABLE SHOULD IT BE FOUND DEFECTIVE.
- LOSS BUDGET
  - FIBER LINKS SHALL HAVE A MAXIMUM LOSS OF: ALLOWABLE CABLE LOSS PER KM/(KM OF FIBER IN LINK) + (.4DB)/(NUMBER OF CONNECTORS) + MAXIMUM ALLOWABLE LOSS.
  - A MATED CONNECTOR TO CONNECTOR INTERFACE IS DEFINED AS A SINGLE CONNECTOR.
  - ANY LINK NOT MEETING THE REQUIREMENTS OF THE STANDARD SHALL BE BROUGHT INTO COMPLIANCE BY THE CONTRACTOR, AT NO CHARGE TO OWNER.
- COMPLETE, END TO END, TEST RESULTS MUST BE SUBMITTED TO THE CONSTRUCTION MANAGER OF RECORD FOR REVIEW (PROVIDE BOTH PDF FORMAT AND NATIVE TESTER FILE FORMAT).

B. EXTENDED PRODUCT WARRANTY WORK

- UNDER THE EXTENDED PRODUCT THE MANUFACTURER SHALL REPLACE ANY AND ALL DEFECTIVE PRODUCT OR PRODUCT NOT FUNCTIONING TO THE LEVELS GUARANTEED AT THE TIME OF THE WARRANTY ISSUE AT THE MANUFACTURERS COST.
- THE MANUFACTURER SHALL ENGAGE AN AUTHORIZED MANUFACTURERS RESELLER TO REPAIR OR REPLACE ANY SUCH DEFECTIVE

PRODUCT ON BEHALF OF THE MANUFACTURER AT NO COST TO THE OWNER.

- THE EXTENDED PRODUCT WARRANTY SHALL INCLUDE A MINIMUM ONE (1) YEAR INSTALLATION WARRANTY FOR THE PREMISES COPPER AND OPTICAL CABLING TO CORRECT ALL INSTALLATION RELATED PROBLEMS/ ISSUES AT NO COST TO THE OWNER.

3.5 COMPLETION OF WORK

A. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL RESTORE TO ITS FORMER CONDITION, ALL ASPECTS OF THE PROJECT SITE AND ON A DAILY BASIS, SHALL REMOVE ALL WASTE AND EXCESS MATERIALS, RUBBISH DEBRIS, TOOLS AND EQUIPMENT RESULTING FROM OR USED IN THE SERVICES PROVIDED UNDER THIS CONTRACT.

SECTION 271500 - COMMUNICATIONS HORIZONTAL CABLING

PART 1 - GENERAL

1.1 SUMMARY

A. SECTION INCLUDES:

- FUTP CABLING
- CABLE CONNECTING HARDWARE, PATCH PANELS, AND CROSS-CONNECTS.
- TELECOMMUNICATIONS OUTLET/CONNECTORS.
- CABLE MANAGEMENT SYSTEM.

B. RELATED REQUIREMENTS

- DIVISION 27 SECTION "GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS" FOR GROUNDING AND BONDING OF EQUIPMENT ROOM FITTINGS.
- DIVISION 27 SECTION "PATHWAYS FOR COMMUNICATIONS SYSTEMS" FOR CABLE TRAYS AND ACCESSORIES.
- DIVISION 27 SECTION "COMMUNICATIONS ROOM FITTINGS" FOR EQUIPMENT RACKS, CABINETS AND ENCLOSURES.

1.2 SUMMARY OF WORK

A. FURNISH AND INSTALL COMPLETE WITH ALL ACCESSORIES A HORIZONTAL STRUCTURED CABLING SYSTEM (SCS) FOR VIDEO CAMERAS.

B. WIRING UTILIZED FOR DATA AND VOICE COMMUNICATIONS SHALL ORIGINATE AT NETWORK SWITCHES AND POE INJECTORS EITHER WALL MOUNTED, IN VERTICAL FREE STANDING EQUIPMENT RACKS, AND/OR ENCLOSED WALL MOUNTED VERTICAL EQUIPMENT RACKS LOCATED AT THE TELECOMMUNICATIONS EQUIPMENT ROOM (ER) AND/OR THE TELECOMMUNICATIONS ROOM (TR) LOCATIONS(S). ALL CONNECTIVITY, WIRING, TERMINATIONS AND PATCH BAYS BETWEEN THESE DESIGNATED DEMARCATION POINTS AND OUTLET LOCATIONS DESIGNATED ON THE PLANS SHALL BE CONSIDERED PART OF THE CONTRACT. TELECOMMUNICATION OUTLETS (TO) SHALL BE FURNISHED, WIRED AND INSTALLED BY THE SCS CONTRACTOR.

C. ALL COPPER CABLE TERMINATIONS SHALL COMPLY WITH, AND BE TESTED TO ANSI/TIA 568-C STANDARDS FOR CATEGORY 6 CABLE INSTALLATIONS.

1.3 REFERENCES

- ANSI/TIA-568-C.0 - GENERIC TELECOMMUNICATIONS CABLING FOR CUSTOMER PREMISES
- ANSI/TIA-568-C.1 - COMMERCIAL BUILDING TELECOMMUNICATIONS WIRING STANDARDS, GENERAL REQUIREMENTS.
- ANSI/TIA-568-C.2 - COMMERCIAL BUILDING TELECOMMUNICATIONS WIRING STANDARDS, BALANCED TWISTED PAIR CABLING COMPONENTS
- ANSI/TIA-568-B - COMMERCIAL BUILDING STANDARD FOR TELECOMMUNICATIONS PATHWAYS AND SPACES.
- ANSI/TIA-606-A - ADMINISTRATION STANDARDS FOR COMMERCIAL TELECOMMUNICATIONS INFRASTRUCTURES.
- ANSI J-STD-607-A COMMERCIAL BUILDING GROUNDING (EARTHING) AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS.
- INTERNATIONAL STANDARDS ORGANIZATION/INTERNATIONAL ELECTROTECHNICAL COMMISSION (ISO/IEC) 11801.
- UNDERWRITERS LABORATORIES (UL) CABLE CERTIFICATION AND FOLLOW UP PROGRAM.
- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).
- AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM).
- NATIONAL ELECTRIC CODE (NEC),2008
- INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE).
- M.UL TESTING BULLETIN.
- AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) X3T9.5 REQUIREMENTS FOR UTP AT 100 MBPS.
- BICSI - TDM, BUILDING INDUSTRIES CONSULTING SERVICES INTERNATIONAL, TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL (TDMM) MOST RECENT VERSION.

1.4 CLOSEOUT SUBMITTALS

A. AS-BUILT DOCUMENTATION: AS SPECIFIED IN SECTION 3.7 H. /2. /B.

B. TEST RESULTS: TEST RESULTS SHALL BE SUBMITTED IN BOTH PDF FORM AND IN THE NATIVE ELECTRONIC FILE FORMAT OF THE TEST EQUIPMENT.



DIVISION 27 - COMMUNICATIONS

- a. COMMUNICATIONS, PLENUM RATED: TYPE CMP, COMPLYING WITH NFPA 262.
- b. MULTIPURPOSE, PLENUM RATED: TYPE MPP, COMPLYING WITH NFPA 262.
- D. CATEGORY 6 GUARANTEED CHANNEL PERFORMANCE
1. THE CATEGORY 6, 4 PAIR UTP CHANNEL SHALL CONSIST OF ALL CABLE AND COMPONENTS WITH FOUR CONNECTIONS THAT COMPRISE THE FULL 100 METER (328 FEET) LENGTH CIRCUIT FROM THE HUB/SERVER/LAN ELECTRONICS PORT LOCATED IN THE ER AND/OR TR TO THE DEVICE PORT LOCATED AT THE USER WORK STATION.
2. ALL COPPER CABLE AND APPARATUS SHALL CONFORM TO THE CATEGORY 6/ CLASS E CHANNEL PERFORMANCE SPECIFICATION.
3. THE CATEGORY 6, 4 PAIR UTP CHANNEL SHALL BE CAPABLE OF PROVIDING STABLE AND CONTINUAL PERFORMANCE UP TO 250 MHZ OVER THE ENTIRE SWEPT FREQUENCY RANGE.
4. THE CATEGORY 6 CABLE AND COMPONENTS SHALL BE ELECTRICALLY COMPATIBLE WITH FUTURE NETWORKS AND BACKWARD COMPATIBLE WITH EXISTING CATEGORY 3, 5, 5E. COMPONENTS OF THE CATEGORY 6 CHANNEL SHALL BE Construction ManagerED AND MANUFACTURED TO COMPENSATE FOR ANY CATEGORY 3, 5 OR SE COMPONENT CROSSTALK AND SHALL PROVIDE AT LEAST CATEGORY 3, 5 OR SE PERFORMANCE IN ALL OF THE CUSTOMER'S EXISTING INSTALLED BASE OF VOICE/DATA/VIDEO. THE CATEGORY 6 CABLE AND COMPONENTS SHALL BE PHYSICALLY COMPATIBLE WITH EXISTING INSTALLED BASE OF EQUIPMENT.
5. THE CATEGORY 6 CABLE AND COMPONENTS SHALL NOT REQUIRE SPECIAL CORDS, SPECIALTY TOOLS OR SPECIAL INSTALLATION REQUIREMENTS.
6. THE CATEGORY 6, 4 PAIR UTP CHANNEL SHALL BE CAPABLE OF PROVIDING STABLE AND CONTINUAL PERFORMANCE FROM 0 MHZ TO 250 MHZ OVER THE ENTIRE SWEPT FREQUENCY RANGE.
7. THE DELAY SKEW ON THE 100 METER CHANNEL SHALL NOT EXCEED 50 NS.
8. EACH INSTALLED CHANNEL (CONSISTING OF CABLE, CORDS AND UP TO FOUR CONNECTIONS) SHALL PROVIDE THE FOLLOWING PERFORMANCE ABOVE (MARGIN/ HEADROOM) THE ANSI/TIA-568-C.2 STANDARD FOR A CATEGORY SE FOUR CONNECTOR CHANNEL OVER THE ENTIRE SWEPT FREQUENCY RANGE FROM 0 MHZ TO 250 MHZ:
- a. INSERTION LOSS: 5.0%
- b. NEXT (NEAR END CROSS TALK): 6.0 DB
- c. PSNEXT (POWER SUM NEAR END CROSS TALK): 7.5 DB
- d. ELNEXT (EQUAL LEVEL FAR END CROSS TALK): 6.0 DB
- e. PSELNEXT (POWER SUM EQUAL LEVEL FAR END CROSS TALK): 8.0 DB
- f. RETURN LOSS: 2.0 DB

2.4 MODULAR PATCH PANELS

A. APPROVED PATCH PANELS

1. 24-PORT PATCH PANEL
- a. PANDUIT; CP24WSBLY
- b. SIEMON
- c. COMMSCOPE
- d. BELDEN KEY CONNECT
- e. HUBBELL

B. THE CATEGORY 6 MODULAR JACK PANELS SHALL MEET OR EXCEED THE CATEGORY 6 STANDARDS REQUIREMENTS IN ISO/IEC 11801 (2002), CEN/IEC EN 50173 (2002) AND ANSI/TIA-568-C.2-10 AND SHALL BE UL LISTED.

C. THE PANEL SHALL BE CAPABLE OF ACCEPTING MODULAR JACKS.

D. THE JACK PANELS SHALL BE T1A/EIA 19" RACK MOUNTABLE.

E. THE PATCH PANEL SHALL ENSURE ALIEN CROSSTALK PERFORMANCE.

F. PROVIDE HORIZONTAL WIRE MANAGEMENT CONTAINING PATCH CORD ORGANIZERS WITHIN ENCLOSURE.

PART 3 - EXECUTION

3.1 WORKMANSHIP

- A. COMPONENTS OF THE SCs SYSTEM SHALL BE INSTALLED IN A NEAT, WORKMANLIKE MANNER.
- B. WIRING COLOR CODES SHALL BE STRICTLY OBSERVED AND TERMINATIONS SHALL BE UNIFORM THROUGHOUT THE SYSTEM.
- C. IDENTIFICATION MARKINGS AND SYSTEMS SHALL BE UNIFORM.

3.2 WIRING METHODS

- A. INSTALL CABLES IN RACEWAYS AND CABLE TRAYS. CONCEAL CONDUCTORS AND CABLES IN ACCESSIBLE CEILINGS, WALLS, AND FLOORS WHERE POSSIBLE.
- B. PROVIDE A MINIMUM 6'-0" OF SERVICE LOOP/ FIGURE EIGHT AT THE TELECOMMUNICATIONS ROOMS FOR EACH PERMANENT LINK.
- C. PROVIDE A MINIMUM OF 18" OF SERVICE LOOP/ FIGURE EIGHT IN THE CEILING ABOVE THE TELECOMMUNICATIONS OUTLET FOR EACH CHANNEL.
- D. PROVIDE A MINIMUM OF 8" SLACK OF CABLE AT EACH COPPER UTP OUTLET LOCATION FOR JACK TERMINATION.
- E. BUNDLE, LACE, AND TRAIN CABLES TO TERMINAL POINTS WITH NO EXCESS AND WITHOUT EXCEEDING MANUFACTURER'S LIMITATIONS ON BENDING RADII. PROVIDE AND USE LACING BARS AND DISTRIBUTION SPOOLS.

3.3 REQUIREMENTS FOR CABLE ROUTING AND INSTALLATION

A. CABLEING

1. ALL COMMUNICATIONS CABLEING USED THROUGHOUT THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS AS OUTLINED IN THE NATIONAL ELECTRIC CODE (NEC) ARTICLES 725, 760, 770, AND 800 AND THE APPROPRIATE LOCAL CODES.
2. ALL COPPER CABLEING SHALL BEAR CMP (PLENUM RATED) AND/OR APPROPRIATE MARKINGS FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED.
- B. CABLE PATHWAY
1. IN SUSPENDED CEILING AND RAISED FLOOR AREAS WHERE DUCT, CABLE TRAYS OR CONDUIT ARE NOT AVAILABLE, THE CONTRACTOR SHALL BUNDLE, IN BUNDLES OF 50 OR LESS, STATION WIRING WITH CABLE TIES SHUG, BUT NOT DEFORMING THE CABLE GEOMETRY.
2. CABLE BUNDLES SHALL BE SUPPORTED VIA "J" HOOKS OR RING ATTACHED TO THE EXISTING BUILDING STRUCTURE AND FRAMEWORK AT INTERVALS OF FOUR (4) FEET AVERAGE WITH A MAXIMUM SEPARATION OF FIVE (5) FEET
3. PLENUM RATED CABLE TIES SHALL BE USED IN ALL APPROPRIATE AREAS.
4. THE CONTRACTOR SHALL ADHERE TO THE MANUFACTURERS' REQUIREMENTS FOR BENDING RADIUS AND PULLING TENSION OF ALL DATA AND VOICE CABLES.
5. ALL CABLEING SHALL BE RUN IN AND SUPPORTED BY CABLE PATHWAYS THAT ARE INSTALLED SOLELY FOR THE PURPOSE OF SUPPORTING LOW VOLTAGE COMMUNICATIONS CABLEING.
6. CABLES SHALL NOT BE ATTACHED TO LIFT OUT CEILING GRID SUPPORTS OR LAID DIRECTLY ON THE CEILING GRID.
7. CABLES SHALL NOT BE ATTACHED TO OR SUPPORTED BY FIRE SPRINKLER HEADS OR DELIVERY SYSTEMS OR ANY ENVIRONMENTAL SENSOR LOCATED IN THE CEILING AIR SPACE.
8. CABLES SHALL MAINTAIN ADEQUATE SEPARATION FROM EMI AND HEAT SOURCES SUCH AS LIGHTING FIXTURES ETC.
9. COORDINATE THE SUPPORT OF CABLE PATHWAYS SUPPORT SYSTEMS WITH THE WORK OF OTHER TRADES.
- 10.COORDINATE ROUTING OF CABLE PATHWAYS WITH THE WORK OF OTHER TRADES TO MAINTAIN ADEQUATE WORKING CLEARANCES ABOVE, BELOW AND TO THE SIDES OF CABLE PATHWAYS.
- 11.COORDINATE WITH OTHER CONTRACTORS DURING THE FINAL BIM COORDINATION MEETINGS TO PROVIDE SHARED HANGERS TO SUPPORT CABLE PATHWAY SYSTEMS.

C. PENETRATIONS OF WALLS, FLOORS AND CEILINGS

1. PRIOR CONSENT: THE CONTRACTOR SHALL MAKE NO PENETRATION OF FLOORS, WALLS OR CEILING WITHOUT THE PRIOR CONSENT FROM OWNER.
2. SEALING PENETRATIONS: THE AREA AROUND THE EXTERIOR OF THE SLEEVE SHALL BE SEALED BY THE CONTRACTOR WHO INSTALLED THE SLEEVE, THE AREA INTERNAL TO THE SLEEVE SHALL BE SEALED BY THE CONTRACTOR WHO PULLED OR PLACED THE CABLES.
3. PENETRATIONS THROUGH ACOUSTICAL WALLS OR OTHER WALLS FOR CABLEWAYS THAT HAVE BEEN PROVIDED FOR THE CONTRACTOR OR MADE BY THE CONTRACTOR SUCH PENETRATIONS SHALL BE SEALED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE CODE REQUIREMENTS AND AS DIRECTED BY OWNER'S Construction Manager OR Construction Manager.
- D. FIRE STOPPING

1. RESPONSIBILITY FOR SEALING OF OPENING AROUND THE EXTERIOR OF THE LOW VOLTAGE SYSTEM SLEEVES SHALL BE BY THE CONTRACTOR AS DESCRIBED BELOW:
- a. SLEEVES THROUGH FIRE RATED AND SMOKE WALLS CREATED BY THE CONTRACTOR FOR CABLE PASS THROUGH SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- b. SLEEVES THROUGH FIRE RATED AND SMOKE WALLS CREATED BY THE CONTRACTOR FOR CABLE PASS THROUGH SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- c. SLEEVES OF OPENINGS BETWEEN FLOORS CREATED BY THE CONTRACTOR FOR CABLE PASS THROUGH SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- d. SLEEVES OF OPENINGS BETWEEN FLOORS CREATED BY THE CONTRACTOR FOR CABLE PASS THROUGH SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. SEALING OF THE SPACE INTERNAL TO ALL SLEEVES OR OPENINGS SPECIFICALLY DESIGNATED FOR TELECOMMUNICATIONS CABLEING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. SEALING MATERIAL AND APPLICATION OF THIS MATERIAL SHALL BE ACCOMPLISHED IN SUCH A MANNER WHICH IS ACCEPTABLE TO THE LOCAL FIRE AND BUILDING AUTHORITIES HAVING JURISDICTION OVER THIS WORK.

E. CONTRACTOR RESPONSIBILITY

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY SURFACES OR WORK DISRUPTED AS A RESULT OF HIS WORK. REPAIR OF SURFACES, INCLUDING PAINTING, SHALL BE INCLUDED AS NECESSARY.
2. THE CONTRACTOR SHALL ENSURE THAT ALL RECOMMENDED CABLE PULLING TENSIONS AND PULLING BENDING RADIUS ARE NOT EXCEEDED. ANY CABLE BENT OR KINKED TO A RADIUS LESS THAN THE RECOMMENDED DIMENSION SHALL NOT BE INSTALLED. ANY CABLE THAT IS BENT OR KINKED TO A RADIUS LESS THAN THE RECOMMENDED DIMENSION DURING INSTALLATION SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

F. HORIZONTAL CABLEING

1. THE CONTRACTOR SHALL SUPPLY HORIZONTAL CABLES TO CONNECT EACH INFORMATION OUTLET TO THE BACKBONE SUBSYSTEM ON THE SAME FLOOR.

2. UNLESS OTHERWISE NOTED ON THE FLOOR PLANS OR WITHIN THIS DOCUMENT, THE TYPE OF HORIZONTAL CABLES USED FOR EACH WORK LOCATION SHALL BE 4-PAIR CATEGORY 6.
3. THE 4-PAIR UTP CABLES SHALL BE RUN USING A STAR TOPOLOGY FORMAT FROM THE ADMINISTRATION SUBSYSTEM (TELECOMMUNICATIONS ROOM) ON EACH FLOOR TO EVERY INDIVIDUAL TELECOMMUNICATION OUTLET.
4. ALL CABLE ROUTES ARE TO BE PARALLEL AND/OR PERPENDICULAR WITH THE OUTSIDE WALLS OF THE BUILDING. ALTERNATE PATHS MUST BE APPROVED BY THE OWNER OF RECORD PRIOR TO INSTALLATION OF THE CABLEING.
5. THE LENGTH OF EACH INDIVIDUAL RUN OF HORIZONTAL CABLE FROM THE ADMINISTRATION SUBSYSTEM (TELECOMMUNICATIONS ROOM) ON EACH FLOOR TO THE TELECOMMUNICATION OUTLET SHALL NOT EXCEED 295 FT (90 M).
6. CONDUIT RUNS INSTALLED BY THE CONTRACTOR SHOULD NOT EXCEED 100 FEET OR CONTAIN MORE THAN TWO 90 DEGREE SWEEPING BENDS WITHOUT UTILIZING APPROPRIATELY SIZED PULL BOXES.
7. THE CONTRACTOR SHALL ADHERE TO THE MANUFACTURERS RECOMMENDATIONS AND SPECIFICATIONS WITH REGARD TO THE BENDING RADIUS AND PULLING STRENGTH REQUIREMENTS OF THE 4-PAIR UTP CABLE DURING HANDLING AND INSTALLATION.
8. THE CONTRACTOR SHALL MAINTAIN THE HORIZONTAL UTP CABLE TWIST RATE FOR EACH PAIR IN THE CABLE TO WITHIN 0.5-INCHES OF THE CABLE TERMINATION OR TO THE MANUFACTURER'S TERMINATION INSTRUCTIONS, WHICHEVER IS MORE STRINGENT. THE CABLE JACKET SHALL BE REMOVED ONLY TO THE EXTENT REQUIRED TO MAKE THE TERMINATION.
9. EACH RUN OF CABLE BETWEEN THE TERMINATION BLOCK AND THE INFORMATION OUTLET SHALL BE CONTINUOUS WITHOUT ANY JOINTS OR SPLICES.
- 10.IN SUSPENDED CEILING AND RAISED FLOOR AREAS WHERE WALKER DUCT, CABLE TRAYS OR CONDUIT ARE NOT AVAILABLE, THE CONTRACTOR SHALL BUNDLE STATION WIRING WITH VELCRO TYPE CABLE TIES AT APPROPRIATE DISTANCES.
- 11.THE CONTRACTOR SHALL CONCEAL HORIZONTAL DISTRIBUTION WIRING INTERNALLY WITHIN THE WALLS WHERE POSSIBLE.
- 12.EVERY EFFORT WILL BE MADE TO COMPLETE ALL ABOVE CEILING WORK WITHOUT DECONSTRUCTION OF THE EXISTING CEILING SYSTEM. IN THE EVENT THE CONTRACTOR IS REQUIRED TO REMOVE CEILING TILES, SUCH WORK SHALL NOT BREAK OR DISTURB GRID AND MUST BE REPLACED TO MATCH EXISTING IF DAMAGED.

3.4 INSTALLATION

A. ALL INSTALLATION SHALL BE DONE IN CONFORMANCE WITH ANSI/TIA-568-C STANDARDS, FEDERAL AND LOCAL STANDARDS AND THE SCs MANUFACTURER DESIGN AND INSTALLATION GUIDELINES.

1. THE CONTRACTOR SHALL ENSURE THAT THE MAXIMUM PULLING TENSIONS OF THE SPECIFIED DISTRIBUTION CABLES ARE NOT EXCEEDED AND CABLE BENDS MAINTAIN THE PROPER RADIUS DURING THE PLACEMENT OF THE FACILITIES. FAILURE TO FOLLOW THE APPROPRIATE GUIDELINES WILL REQUIRE THE CONTRACTOR TO PROVIDE IN A TIMELY FASHION THE ADDITIONAL MATERIAL AND LABOR NECESSARY TO PROPERLY RECTIFY THE SITUATION AT NO ADDITIONAL COST TO THE OWNER. THIS SHALL ALSO APPLY TO ANY AND ALL DAMAGES SUSTAINED TO THE CABLES BY THE CONTRACTOR DURING THE IMPLEMENTATION.

2. THE CONTRACTOR SHALL MAKE PROVISIONS SO THAT ALL CABLEING IS STORED WITHIN A TEMPERATURE CONTROLLED SPACE TO ENSURE THAT CABLEING IS UNSPOOLED, MANIPULATED, AND WORKED WITH ONLY WHEN THE CABLEING IS WITHIN THE MANUFACTURER'S INSTALLATION TEMPERATURE SPECIFICATIONS AND FREE OF CONDENSATION.

B. BONDING AND GROUNDING

1. COMPLY WITH REQUIREMENTS IN DIVISION 27 SECTION "GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS" FOR GROUNDING CONDUCTORS AND CONNECTORS.
2. COMPLY WITH ANSI-STD-607-A.

C. POWER SEPARATION: THE CONTRACTOR SHALL NOT PLACE ANY DISTRIBUTION CABLEING ALONGSIDE POWER LINES, OR SHARE THE SAME CONDUIT, CHANNEL OR SLEEVE WITH ELECTRICAL APPARATUS.

D. SEPARATION FROM EMI SOURCES:

1. COMPLY WITH ARTICLE 800.52 OF ANSINFPFA 70, BICSI TDDM AND ANSI/TIA-569-B RECOMMENDATIONS FOR SEPARATING UNSHIELDED CARRIER VOICE AND DATA COMMUNICATION CABLE FROM POTENTIAL EMI SOURCES, INCLUDING ELECTRICAL POWER LINES AND EQUIPMENT.

E. MISCELLANEOUS EQUIPMENT: THE CONTRACTOR SHALL PROVIDE ANY NECESSARY SCREWS, ANCHORS, CLAMPS, TIE WRAPS, DISTRIBUTION RINGS, WIRE MOLDING (ER & TR LOCATIONS), MISCELLANEOUS GROUNDING AND SUPPORT HARDWARE, ETC., NECESSARY TO FACILITATE THE INSTALLATION OF THE SCs SYSTEM.

F. SPECIAL EQUIPMENT AND TOOLS: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH ANY SPECIAL INSTALLATION EQUIPMENT OR TOOLS NECESSARY TO PROPERLY COMPLETE THE SYSTEM. TOOLS SHALL INCLUDE, BUT ARE NOT LIMITED TO:

1. TOOLS FOR TERMINATING CABLES.
2. TESTING AND SPLICING EQUIPMENT FOR COPPER/FIBER CABLES.
3. COMMUNICATION DEVICES.
4. JACK STANDS FOR CABLE REELS.
5. CABLE WENCHES.

3.5 IDENTIFICATION/LABELING

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GENERATING AND PLACING PRINTED LABELS FOR ALL CABLES AND CORDS, DISTRIBUTION FRAMES, AND OUTLET LOCATIONS AT THE TIME OF DELIVERY.
- B. ADHERE TO THE STANDARDS FOR IDENTIFICATION/LABELING AS SHOWN ON PROJECT DRAWINGS.

C. AS-BUILT DOCUMENTATION

1. UPON COMPLETION OF THE PROJECT, CONTRACTOR IS TO PREPARE "AS-BUILT" DOCUMENTATION SHOWING ACTUAL SITE CONDITIONS AND INSTALLATION AS CONSTRUCTED. PROVIDE COPIES OF SUCH DOCUMENTATION TO OWNER AS MENTIONED BELOW.

3.6 TESTING / WARRANTY

A. COPPER CABLE TESTING

1. IT IS UNDERSTOOD THAT ALL CABLES WILL FAIL STANDARDS TESTING DUE TO EXCEEDING THE 100 METER LENGTH REQUIREMENT. TESTING OF ALL COPPER WIRING SHALL BE PERFORMED PRIOR TO SYSTEM ACCEPTANCE.
2. ONE HUNDRED PERCENT OF THE PERMANENT INSTALLED LINKS SHALL BE TESTED.
- a. ALL CABLEING SHALL BE COMPARED TO THE SPECIFICATIONS OF ANSI/TIA-568-C.2 (SPECIFIC TO THE CATEGORY STANDARDS THE CABLEING IS MANUFACTURED TO) BY THE MARGINS (HEADROOM) SPECIFIED IN THE MANUFACTURER'S EXTENDED PRODUCT WARRANTY PLATFORM.
3. ONE HUNDRED PERCENT OF THE HORIZONTAL AND RISER WIRING PAIRS SHALL BE TESTED FOR OPENS, SHORTS, POLARITY REVERSALS, TRANSDPOSITION AND PRESENCE OF AC VOLTAGE.
4. ONE HUNDRED PERCENT OF HORIZONTAL CABLES SHALL BE TESTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS UTILIZING THE LATEST FIRMWARE AND SOFTWARE.
- a. TESTING SHALL INCLUDE ALL OF THE ELECTRICAL PARAMETERS.
- b. THE DETAILED TEST RESULTS SHALL INCLUDE THE FOLLOWING:
- 1) WIRE MAP
- 2) LENGTH (FAILURE IS ASSUMED)
- 3) INSERTION LOSS
- 4) NEAR-END CROSS TALK (NEXT)
- 5) POWER SUM NEAR-END CROSSTALK (PSNEXT)
- 6) EQUAL-LEVEL FAR-END CROSSTALK (ELNEXT)
- 7) POWER SUM EQUAL-LEVEL FAR-END CROSSTALK (PSELNEXT)
- 8) RETURN LOSS
- 9) PROPAGATION DELAY
- 10) DELAY SKEW
5. COMPLETE, END TO END, TEST RESULTS SHALL BE SUBMITTED TO OWNER FOR REVIEW.

B. EXTENDED PRODUCT AND APPLICATION ASSURANCE WARRANTY WORK

1. UNDER THE EXTENDED PRODUCT AND APPLICATION ASSURANCE WARRANTY, THE MANUFACTURER SHALL REPLACE ANY AND ALL DEFECTIVE PRODUCT OR PRODUCT NOT FUNCTIONING TO THE LEVELS GUARANTEED AT THE TIME OF THE WARRANTY ISSUE AT THE MANUFACTURER'S COST.

3.7 COMPLETION OF WORK

A. AT THE COMPLETION OF THE SYSTEM, THE CONTRACTOR SHALL RESTORE TO ITS FORMER CONDITION, ALL ASPECTS OF THE PROJECT SITE AND ON A DAILY BASIS REMOVE ALL WASTE AND EXCESS MATERIALS, RUBBISH DEBRIS, TOOLS AND EQUIPMENT RESULTING FROM OR USED IN THE SERVICES PROVIDED UNDER THIS CONTRACT.

SECTION 282313 - VIDEO MANAGEMENT SYSTEMS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. THE EXISTING MILESTONE VIDEO MANAGEMENT SYSTEM SHALL BE USED FOR THIS PROJECT.
- B. ADDITIONAL VIDEO MANAGEMENT SYSTEM COMPONENTS AND SOFTWARE CONFIGURATION WILL BE PROVIDED BY THE DISTRICT.
- C. PROVIDE THE DISTRICT WITH ALL NECESSARY HARDWARE ADDRESSING INFORMATION AND ASSIST IN CONFIGURATION AS REQUIRED.

SECTION 270526 - VIDEO CAMERAS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. THE CAMERA SHALL BE OF MANUFACTURER'S OFFICIAL PRODUCT LINE, DESIGNED FOR COMMERCIAL/INDUSTRIAL 24/7/365 USE.
- B. THE CAMERA SHALL BE BASED UPON STANDARD COMPONENTS AND PROVEN TECHNOLOGY USING OPEN AND PUBLISHED PROTOCOLS.
- C. THE SPECIFIED UNIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ISO 9001 / EN 29001.
- A. ALL CAMERA INSTALLATION, CONFIGURATION, SETUP, PROGRAM AND RELATED WORK SHALL BE PERFORMED BY ELECTRONIC TECHNICIANS THOROUGHLY TRAINED BY THE MANUFACTURER IN THE INSTALLATION AND SERVICE OF THE EQUIPMENT PROVIDED.
- B. ALL EQUIPMENT PROVIDED SHALL BE BACKED BY A MINIMUM OF THREE YEARS MANUFACTURER WARRANTY.

1.2 QUALITY ASSURANCE

- A. THE SPECIFIED UNIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ISO 14000.
- B. THE SPECIFIED UNIT SHALL BE COMPLIANT WITH 2002/95/EG ROHS AND 2002/96/EG WEEE.

1.4 CERTIFICATIONS AND STANDARDS

A. THE CAMERA SHALL CARRY THE FOLLOWING EMC APPROVALS:

- EN55022, EN55024
- FCC PART 15 - SUBPART B
- VCCI
- C-TICK ASINZS CISPR22
- ICES-003

B. THE CAMERA SHALL MEET THE FOLLOWING PRODUCT SAFETY STANDARDS

- UL / EN 60950 - 1
- UL / EN 60950 - 22

C. THE CAMERA SHALL MEET THE FOLLOWING STANDARDS

1. MPEG-4:
- ISO/IEC 14496-10 AVC (H.264)
2. NETWORKING:
- IEEE 802.3AF (POWER OVER ETHERNET)
- IEEE 802.1X (AUTHENTICATION)
- IPv4 (RFC 791)
- IPv6 (RFC 2460)
- QOS - DIFFSERV (RFC 2475)
3. NETWORK VIDEO
- ONVIF PROFILE S OR ONVIF VERSION 1.01 OR HIGHER AS DEFINED BY THE ONVIF ORGANIZATION.
4. MECHANICAL ENVIRONMENT:
- EN50121-4
- IEC62236-4
5. ENVIRONMENTAL PROTECTION:
- IEC 60529 (IP68)
- NEMA 250 (TYPE 4X)

PART 2 - PRODUCTS

2.1 GENERAL

A. THE CAMERA SHALL:

1. BE DESIGNED TO PROVIDE MULTIPLE VIDEO STREAMS IN HDTV 1080p (1920X1080) AT UP TO 30 FRAMES PER SECOND (60HZ MODE) OR 25 FRAMES PER SECOND (50HZ MODE) USING H.264 OR MOTION JPEG.
2. BE EQUIPPED WITH DAY/NIGHT FUNCTIONALITY AND REMOTE ZOOM AND FOCUS CAPABILITIES.
3. OPERATE ON AN OPEN SOURCE, LINUX-BASED PLATFORM, AND INCLUDING A BUILT-IN WEB SERVER.
4. BE EQUIPPED WITH A SLOT FOR SD/SDHC MEMORY CARD EXPANSION.
5. BE MANUFACTURED WITH AN ALL-METAL BODY, SUPPORT OPERATION BETWEEN -40 TO +55°C (-40 TO +131°F) AND BE BOTH IP68 AND NEMA 4X-RATED.

2.2 HARDWARE

A. THE CAMERA SHALL:

1. USE A HIGH QUALITY IR-SENSITIVE PROGRESSIVE SCAN SENSOR.
2. BE EQUIPPED WITH A REMOVABLE IR-CUT FILTER, PROVIDING SO-CALLED DAY/NIGHT FUNCTIONALITY.
3. BE EQUIPPED WITH A HIGH-QUALITY VARIFOCAL LENS, PROVIDE AUTOMATED IRIS FUNCTIONALITY WITH P-IRIS CONTROL, AND PROVIDE REMOTE ZOOM AND FOCUS FUNCTIONALITY.
4. PROVIDE PICTURES DOWN TO 0.15 LUX WHILE IN DAY MODE (WITH IR-FILTER IN USE) AND DOWN TO 0.03 LUX WHILE IN NIGHT MODE (WITH IR-FILTER REMOVED).
5. SUPPORT MEMORY EXPANSION BY PROVIDING AN AVAILABLE SD/SDHC CARD SLOT AND A CLASS 10, 32 GB MEMORY CARD FOR LOCAL VIDEO STORAGE.

2.3 VIDEO

A. RESOLUTION

1. THE CAMERA SHALL BE ABLE TO DELIVER AT LEAST TWO INDIVIDUALLY CONFIGURABLE FULL RESOLUTION FULL FRAME RATE VIDEO STREAMS OVER IP NETWORKS.
2. SUPPORTED VIDEO RESOLUTIONS SHALL INCLUDE:
- 1280X720 (16:9)
- 1920X1080 (16:9)
- 2560X1440 (Q3708)
- 2560X1920 5MP (Q3708)
3. THE CAMERA SHALL BE ABLE TO PROVIDE BOTH LANDSCAPE FORMAT (16:9 ASPECT RATIO) AS WELL AS CORRIDOR FORMAT (9:16 ASPECT RATIO).

B. ENCODING

1. THE CAMERA SHALL:
2. SUPPORT MOTION JPEG ENCODING IN A SELECTABLE RANGE UP TO 30 FRAMES PER SECOND IN ALL RESOLUTIONS.
3. SUPPORT BASELINE PROFILE H.264 ENCODING WITH MOTION ESTIMATION IN UP TO 30 FRAMES PER SECOND IN ALL RESOLUTIONS.
4. SUPPORT MAIN PROFILE H.264 ENCODING WITH MOTION ESTIMATION AND CONTEXT-ADAPTIVE BINARY ARITHMETIC CODING (CABAC) IN UP TO 30 FRAMES PER SECOND IN ALL RESOLUTIONS.
5. BE ABLE TO PROVIDE INDEPENDENTLY CONFIGURED SIMULTANEOUS H.264 AND MOTION JPEG STREAMS.
6. SUPPORT BOTH CONSTANT BIT RATE (CBR) AND VARIABLE BIT RATE (VBR) IN H.264.
7. PROVIDE CONFIGURABLE COMPRESSION LEVELS.

C. TRANSMISSION

1. THE CAMERA SHALL ALLOW FOR VIDEO TO BE TRANSPORTED OVER:
- HTTP (UNICAST)
- HTTPS (UNICAST)
- RTP (UNICAST & MULTICAST)
- RTSP OVER RTSP (UNICAST)
- RTSP OVER RTSP OVER HTTP (UNICAST)
2. THE CAMERA SHALL SUPPORT QUALITY OF SERVICE (QOS) TO BE ABLE TO PRIORITIZE TRAFFIC.

D. IMAGE CONTROL

1. SUPPORT A CONFIGURABLE MAXIMUM SHUTTER IN THE RANGE FROM 2 TO 1/250.500 SECOND IN 60HZ MODE AND THE RANGE FROM 2 TO 1/250.500 SECONDS IN 50 HZ MODE.
2. INCORPORATE AUTOMATIC AND MANUAL WHITE BALANCE.
3. BE EQUIPPED WITH AN ELECTRONIC SHUTTER AND SUPPORT AUTOMATIC AND MANUALLY DEFINED EXPOSURE ZONES.
4. BE EQUIPPED WITH WIDE DYNAMIC RANGE FUNCTIONALITY.
5. SUPPORT A CONFIGURABLE MAXIMUM SHUTTER IN THE RANGE FROM 2 TO 1/250.500 SECOND IN 60HZ MODE AND THE RANGE FROM 2 TO 1/250.500 SECONDS IN 50 HZ MODE.
6. PROVIDE BACK LIGHT COMPENSATION.
7. ALLOW FOR ROTATION OF THE IMAGE IN STEPS OF 90°.

2.5 FUNCTIONALITY

A. WEB SERVER

1. THE CAMERA SHALL CONTAIN A BUILT-IN WEB SERVER MAKING VIDEO AND CONFIGURATION AVAILABLE TO MULTIPLE CLIENTS IN A STANDARD OPERATING SYSTEM AND BROWSER ENVIRONMENT USING HTTP, WITHOUT THE NEED FOR ADDITIONAL SOFTWARE.
2. OPTIONAL COMPONENTS DOWNLOADED FROM THE CAMERA FOR SPECIFIC TASKS, E.G. ACTIVE X, SHALL BE SIGNED BY AN ORGANIZATION PROVIDING DIGITAL TRUST SERVICES, SUCH AS VERISIGN, INC.

B. IP ADDRESSES

1. THE CAMERA SHALL SUPPORT BOTH FIXED IP ADDRESSES AND DYNAMICALLY ASSIGNED IP ADDRESSES PROVIDED BY A DYNAMIC HOST CONTROL PROTOCOL (DHCP) SERVER.
2. THE CAMERA SHALL ALLOW FOR AUTOMATIC DETECTION OF THE CAMERA BASED ON UPNP AND BONJOUR WHEN USING A PC WITH AN OPERATING SYSTEM SUPPORTING THIS FEATURE.
3. THE CAMERA SHALL PROVIDE SUPPORT FOR BOTH IPV4 AND IPV6.

C. EVENT FUNCTIONALITY

1. THE CAMERA SHALL BE EQUIPPED WITH AN INTEGRATED EVENT FUNCTIONALITY, WHICH CAN BE TRIGGERED BY:
- VIDEO MOTION DETECTION
- SCHEDULE
- CAMERA TAMPERING
- EMBEDDED THIRD PARTY APPLICATIONS
- EXTERNAL INPUT
- AUDIO DETECTION
- EDGE STORAGE DISRUPTION DETECTION
2. RESPONSE TO TRIGGERS SHALL INCLUDE:
- NOTIFICATION, USING TOP, SMTP OR HTTP
- IMAGE UPLOAD, USING FTP, SMTP OR HTTP
- ACTIVATING EXTERNAL OUTPUT
3. THE CAMERA SHALL PROVIDE MEMORY FOR PRE & POST ALARM RECORDINGS.
4. EVENT FUNCTIONS SHALL BE CONFIGURABLE VIA THE WEB INTERFACE.

D. EDGE STORAGE

1. THE CAMERA SHALL SUPPORT CONTINUOUS AND EVENT CONTROLLED RECORDING TO:

- a. 16GB LOCAL MEMORY ADDED TO THE CAMERAS SD-CARD SLOT
- b. NETWORK ATTACHED STORAGE (NAS), LOCATED ON THE LOCAL NETWORK

2. THE CAMERA SHALL BE ABLE TO DETECT AND NOTIFY EDGE STORAGE DISRUPTIONS

E. PROTOCOL SUPPORT

1. THE CAMERA SHALL INCORPORATE SUPPORT FOR AT LEAST IP, HTTP, HTTPS, SSL/TLS, TCP, ICMP, SNMPV1/V2C/V3 (MIB-II), RTSP, RTP, UDP, IGMP, RTPCP, SMTP, FTP, DHCP, UPNP, ARP, DNS, DDNS, SOCKS, NTP AND BONJOUR.
2. THE SMTP IMPLEMENTATION SHALL INCLUDE SUPPORT FOR SMTP AUTHENTICATION.

F. TEXT OVERLAY

1. THE CAMERA SHALL:

- a. PROVIDE EMBEDDED ON-SCREEN TEXT WITH SUPPORT FOR DATE & TIME, AND A CUSTOMER-SPECIFIC TEXT, CAMERA NAME, OF AT LEAST 45 ASCII CHARACTERS.
- b. TO ENSURE ACCURACY, THE CAMERA SHALL ACCEPT EXTERNAL TIME SYNCHRONIZATION FROM AN NTP (NETWORK TIME PROTOCOL) SERVER.
- c. PROVIDE THE ABILITY TO APPLY A PRIVACY MASK TO THE IMAGE.
- d. ALLOW FOR THE OVERLAY OF A GRAPHICAL IMAGE, SUCH AS A LOGOTYPE, INTO THE IMAGE.

G. SECURITY

1. THE CAMERA SHALL:

- a. SUPPORT THE USE OF HTTPS AND SSL/TLS, PROVIDING THE ABILITY TO UPLOAD SIGNED CERTIFICATES TO ENCRYPT AND SECURE AUTHENTICATION AND COMMUNICATION OF BOTH ADMINISTRATION DATA AND VIDEO STREAMS.
- b. SUPPORT IEEE 802.1X AUTHENTICATION.
- c. PROVIDE SUPPORT FOR RESTRICTING ACCESS TO PRE-DEFINED IP ADDRESSES ONLY, SO-CALLED IP ADDRESS FILTERING.
- d. RESTRICT ACCESS TO THE BUILT-IN WEB SERVER BY USERNAMES AND PASSWORDS AT THREE DIFFERENT LEVELS.

H. API SUPPORT

1. THE CAMERA SHALL BE FULLY SUPPORTED BY AN OPEN AND PUBLISHED API (APPLICATION PROGRAMMERS INTERFACE), WHICH SHALL PROVIDE NECESSARY INFORMATION FOR INTEGRATION OF FUNCTIONALITY INTO THIRD PARTY APPLICATIONS.
2. THE CAMERA SHALL CONFORM TO ONVIF PROFILE S OR ONVIF VERSION 1.01 OR HIGHER AS DEFINED BY THE ONVIF ORGANIZATION, AND SHALL BE UPGRADABLE AT ANY TIME.

I. EMBEDDED APPLICATIONS

1. THE CAMERA SHALL PROVIDE A PLATFORM ALLOWING THE UPLOAD OF THIRD PARTY APPLICATIONS INTO THE CAMERA.
2. THE CAMERA VENDOR SHALL PROVIDE A COMPATIBILITY TOOL FOR THE APPLICATION VENDOR TO VERIFY THE STABILITY AND PERFORMANCE IMPACT OF THEIR UPLOADED APPLICATION.
3. INSTALLATION AND MAINTENANCE, THE CAMERA SHALL:
- a. BE SUPPLIED WITH WINDOWS-BASED MANAGEMENT SOFTWARE WHICH ALLOWS THE ASSIGNMENT OF IP ADDRESSES, UPGRADE OF FIRMWARE AND BACKUP OF THE CAMERAS CONFIGURATION.
- b. SUPPORT THE USE OF SNMP-BASED MANAGEMENT TOOLS ACCORDING TO SNMP V1, 2C & 3 / MIB-II.
- c. ALLOW UPDATES OF THE SOFTWARE (FIRMWARE) OVER THE NETWORK, USING FTP OR HTTP.
- d. PROVIDE THE ABILITY TO APPLY A RECTANGLE OF CUSTOMER-DEFINED NUMBER OF PIXELS TO THE IMAGE, WHICH CAN BE USED AS A PIXEL COUNTER IDENTIFYING THE SIZE OF OBJECTS IN NUMBER OF PIXELS.
- e. ALL CUSTOMER-SPECIFIC SETTINGS SHALL BE STORED IN A NON-VOLATILE MEMORY AND SHALL NOT BE LOST DURING POWER CUTS OR SOFT RESET.
- J. USER LOGS, THE CAMERA SHALL:

1. PROVIDE A LOG FILE, CONTAINING INFORMATION ABOUT THE 250 LATEST CONNECTIONS AND ACCESS ATTEMPTS SINCE THE UNIT'S LATEST RESTART. THE FILE SHALL INCLUDE INFORMATION ABOUT THE CONNECTING IP ADDRESSES AND THE TIME OF CONNECTING.
2. PROVIDE A CONNECTION LIST OF ALL CURRENTLY CONNECTED VIEWERS. THE FILE SHALL INCLUDE INFORMATION ABOUT CONNECTING IP ADDRESS, TIME OF CONNECTING AND THE TYPE OF STREAM ACCESSED.

2.6 CAMERA DIAGNOSTICS

A. THE CAMERA SHALL:

1. BE EQUIPPED WITH LEDS, CAPABLE OF PROVIDING VISIBLE STATUS INFORMATION. LEDS SHALL INDICATE THE CAMERA'S OPERATIONAL STATUS AND PROVIDE INFORMATION ABOUT POWER, COMMUNICATION WITH RECEIVER, THE NETWORK STATUS AND THE CAMERA STATUS.
2. BE MONITORED BY A WATCHDOG FUNCTIONALITY, WHICH SHALL AUTOMATICALLY RE-INITIATE PROCESSES OR RESTART THE UNIT IF A MALFUNCTION IS DETECTED.

2.7 INTERFACES

A. NETWORK INTERFACE

1. THE CAMERA SHALL BE EQUIPPED WITH ONE 100BASE-TX FAST ETHERNET-PORT, USING A STANDARD RJ-45 SOCKET AND SHALL SUPPORT AUTO NEGOTIATION OF NETWORK SPEED (100 MBITS/S AND 10 MBITS/S) AND TRANSFER MODE (FULL AND HALF DUPLEX).

B. AUDIO

- THE CAMERA SHALL BE EQUIPPED WITH ONE 3.5 MM JACK FOR LINEMIC INPUT AND ONE 3.5 MM JACK FOR LINE OUTPUT.
- C. INPUTS/OUTPUTS
- THE CAMERA SHALL BE EQUIPPED WITH ONE DIGITAL (ALARM) INPUT AND ONE DIGITAL OUTPUT, ACCESSIBLE VIA A REMOVABLE TERMINAL BLOCK. THIS INPUT SHALL BE CONFIGURABLE TO RESPOND TO NORMALLY OPEN (NO) OR NORMALLY CLOSED (NC) DRY CONTACTS.

2.8 ENCLOSURE

A. THE CAMERA ENCLOSURE SHALL INCLUDE THE FOLLOWING:

1. MANUFACTURED WITH AN ALL-METAL VANDAL RESISTANT BODY PROVIDING ENCAPSULATED ELECTRONICS
- a. CLEAR AND SMOKED TRANSPARENT COVER
- b. IP66-RATING
- c. NEMA 4X-RATING
- d. IMPACT RESISTANCE ACCORDING TO IK10
- e. THERMOSTAT, HEATER AND FAN INSIDE THE ENCLOSURE
- f. FITTED WITH A DEHUMIDIFYING MEMBRANE
- g. REMOVABLE WEATHER SHIELD
- B. THE CAMERA ENCLOSURE SHALL PROVIDE THE ABILITY TO ADJUST THE CAMERA MODULES ANGLE WITH AT LEAST 180 HORIZONTAL, 85 VERTICAL AND 170 ROTATION WHILE MAINTAINING AN IMAGE THAT IS NOT INTERFERED WITH BY THE CAMERA HO