# PROJECT MANUAL Volume 1 of 1

March 5, 2021 Contract Documents

Shawnee Mission District AV Upgrades 2021 Indian Hills MS, Northwest HS, West HS, East HS
Bid Number 20-xxx



HTK Architects, PA 9300 W. 110<sup>th</sup> St., Ste. 150 Overland Park, KS 66210 913-663-5373 Shawnee Mission School District Center for Academic Achievement 8200 W. 71st Overland Park, KS 66204 913-993-6200

### **Title Page**

HTK Project #: 1707.05-004

# PROJECT Shawnee Mission District AV Upgrades

March 5, 2021

### **OWNER**

Shawnee Mission USD #512 Center for Academic Achievement 8200 W. 71st Overland Park, KS 66204 (913) 993-6200

### **ARCHITECT**

HTK Architects, PA 9300 W. 110<sup>th</sup> St., Suite 150 Overland Park, KS 66210 (913) 663-5373

Fax: (913) 663-5270 www.htkarchitects.com

Contact: Matt Patterson, AIA Email: <a href="mailto:mrp@htkarchitects.com">mrp@htkarchitects.com</a>

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### **BID FORM**

HTK Project #: 1707.05-004

### BID NO. 20-xxx

### LUMP SUM PROPOSAL

SHAWNEE MISSION SCHOOL DISTRICT General Construction for: Shawnee Mission District AV Upgrades 2021 Indian Hills MS, Northwest HS, West HS, East HS

PROP	OSAL OF:		
(Herei	nafter called "Bidder"),		
	A CORPORATON* ORGANIZED AND EXISTING	UNDER THE LAWS	
	OF THE STATE OF		
	A PARTNERSHIP* CONSISTING OF		
	AN INDIVIDUAL* TRADING AS		
*Comp	plete applicable designation.		
TO:	SHAWNEE MISSION PUBLIC SCHOOLS ATTN: MR. Michael Wood 8200 W. 71st Overland Park, KS 66204		
1.	The undersigned, having familiarized itself with lot the place where the work is to be done and with a to Bidders, Plans and Specifications, General and of Agreement and the other Contract Documer proposed work and considered the availability agrees to perform everything required to be perflabor, materials, supervision, necessary tools, equinecessary to perform and complete in a workmar for the project, all in strict conformance with the Documents (including Addenda Nos, the acknowledged), for the lump sums hereinafter specific places.	Il Bidding Documents, including the Supplementary Conditions, the Stats, and having examined the local formed, and materials, hereby pormed, and to provide and furnisly inpment, and all utility and transportalike and timely manner all of the value Instructions to Bidders and of trough, the receipt of white	e Instructions tandard Form cation of the proposes and hany and all tation service work required ther Contract
2.	FOR BASE BID Projects are to be bid separately. Each school w Include \$2,000 allowance in each bid package for		
	Package A: Indian Hills MS & East HS	Dollars (\$	).
	Package B: West HS	Dollars (\$	).
	Package C: Northwest HS	Dollars (\$	).

BID FORM 000200 - 1

### TAX EXEMPTION

This project shall be considered Tax Exempt. Federal, State and local taxes shall not be included with the Bid. Subsequent to the award of the construction contract, the School District will obtain from the State of Kansas a sales tax exemption certificate number. The sales tax exemption certificate will permit the Contractor to purchase materials for incorporation into this project without paying sales tax, provided that the Contractor furnishes the certificate number to the material supplier.

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### 4. CHANGES IN THE WORK

Changes in the work shall be as established in the Contract Documents. The following fees shall be used for lump sum pricing and actual cost pricing of additions and deletions to the work included in the Bid, Namely:

		Not to Exceed
A.	To Contractor for work performed by his own forces	10%
B.	To Contractor for work performed by other than his own forces	5%
C.	To Subcontractor for work performed by his own forces	10%
D.	To Subcontractor for work performed by other than his own force	es 5%

Percentages for overhead and profit will not be allowed on bond premiums.

- 5. Alternates: N/A
- 6. Unit Cost Breakdowns: N/A
- 7. A. In the execution of the Agreement, no person shall on the grounds of race, color, religion, sex, disability, or national origin be excluded from full employment rights, be denied the benefits of, or otherwise subject to discrimination under any program, service or activity under the provisions of any and all applicable Federal and state laws against discrimination. Bidder shall furnish all information and reports required by the rules, regulations, and order of the Secretary of Labor for purposes of investigating to determine compliance with such laws.
  - B. Bidder shall observe the provisions of the Kansas Acts Against Discrimination and shall not discriminate against any person in the performance of work under the Agreement because or race, religion, color, sex, physical handicap unrelated to such person's ability to engage in the particular work, national origin or ancestry.
  - C. In all solicitations or advertisements for employees, Bidder shall include the phrase, "equal opportunity employer", or similar phrase approved by the Owner.
  - D. If bidder fails to comply with the provisions of K.S.A. 441031, bidder shall be deemed to have breached the Agreement and it may be canceled, terminated or suspended in whole or in part, by Owner.
  - E. If bidder is found guilty of a violation of the Kansas Acts Against Discrimination under a decision or order of Owner that has become final, bidder shall be deemed to have

BID FORM 000200 - 2

Authorized Officer

Telephone Number

Title

(Seal)

ATTESTED:

**BID FORM** 

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breached the present Agreement and it may be canceled, terminated, or suspended in whole or in part, by Owner.

- F. Bidder shall include the provisions of paragraphs A through E above in every subcontract or purchase order so that such provisions shall be binding upon all subcontractors and vendors.
- 8. The undersigned hereby proposes and agrees to substantially and/or finally complete the work or segments of the work on or before the scheduled dates listed in Section 01010-Summary of Work, and to pay as liquidated damages the corresponding amount stipulated in Section 10101-Summary of Work for each consecutive calendar day thereafter that the work or segment of the work remains substantially and/or finally incomplete in accordance with the Contract Documents. This provision shall be applied, and the daily liquidated damages amount(s) shall be calculated separately as to each substantial and/or final complete date stated.

### **SECTION 001000**

HTK Project #: 1707.05-004

### **INVITATION TO BID**

### **PROJECT**

Shawnee Mission District AV Upgrades 2021 Indian Hills MS, Northwest HS, West HS, East HS

### **OWNER**

Shawnee Mission School District #215 Center for Academic Achievement 8200 W. 71<sup>st</sup> Overland Park, KS 66204

### **ARCHITECT**

HTK Architects, PA 9300 W. 110<sup>th</sup> St., Ste. 150 Overland Park, KS 66210

### PROJECT SCOPE

AV upgrades at Auditoriums the high schools, middle school stage lighting, & NW HS little theater. Projects will be broken up into 3 bid packages. Refer to Bid Form.

Estimated Construction Cost range (base bid for all projects): \$1,300,000

PRE-BID CONFERENCE

Date: Wednesday, March 17, 2021

Time: 1:30 pm

Place: Shawnee Mission Northwest High School

12701 W. 67<sup>th</sup> St. Overland Park, KS 66216

### **BID RECEIVING**

Date: Wednesday, March 31, 2021

Time: 9:00 am

Place: SMSD Center for Academic Achievement

8200 W. 71st

Overland Park, KS 66204

### **BIDDING DOCUMENTS**

Full sets of drawings and specifications, both hard copy & digital files, will be available on or after **March 8, 2021**. Bidders who wish to receive their set(s) of bid documents as soon as they are available should contact:

Drexel Technologies 10840 W. 86th Street Lenexa, KS 66214 (P) 913.371.4430

Email Address: distribution@drexeltech.com

Plans may also be viewed for free online at: http://planroom.drexeltech.com/View/Default.aspx

### **BID SECURITY AND BONDS**

Bid Security and bonds will be required in accordance with "Instruction to Bidders".

Subcontractor performance bond & payment bond in accordance with "Instruction to Bidders" will be required from the firms providing the scopes of Work listed in Section 006100. "Bonds".

### NONDISCRIMINATION POLICY

The Shawnee Mission School District is an equal opportunity, affirmative-action employer, and shall not discriminate on the basis of sex, age, race, color, creed, religion, national or ethnic origin, or disability. Harassment on the basis of sex, age, race, color, creed, religion, national origin, ethnic origin, or disability is also prohibited. Bidders may view this policy at the office of the Owner.

End of Section 001000

INVITATION TO BID 001000 - 1

### **SECTION 01631** REQUEST FOR SUBSTITUTION FORM

The Architect reserves the right to reject this request due to any inconsistencies, errors, omissions, or unsubstantiated claims. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

Upon installation, any product or system that is found to be incompatible with Owner's existing systems or protocols shall be removed and replaced with compatible products or systems at no additional cost to the Owner.

(Submit 2 copies)

Use separate form for each submittal. Any questions that do not apply should be filled in with "N/A".

Project Name:	SMSD Bid No.: Date:
To: Architect's Name Address City Phone #	
Check the one that applies:  General Contractor  Subcontractor	_
If applicant is subcontractor or supplier, lis  1. 2. 3. 4. 5.  I/We hereby request approval of the following pubstitution" (name and description of specified	6. 7. 8. 9. 10.  product or system as an "approved d product or system):
SPECIFICATION SECTION NO, PAGE(: PARAGRAPH(s)	s),
DRAWING Number(s), DETAIL C Number(s)	DR SECTION
SPECIFIED PRODUCT	SUBSTITUTION / ALTERNATE

HTK Project #: 1707.05-004

### **Product Characteristics: Product Characteristics:** Material: Material: Flammability: Flammability: Smoke Density **Smoke Density** Fuel Contributed Fuel Contributed Flame Spread Flame Spread Moisture Absorption Moisture Absorption Elasticity Elasticity Water Resistance Water Resistance SPECIFIED PRODUCT SUBSTITUTION / ALTERNATE **Substrate Compatibility: Substrate Compatibility:** Installation On: Installation On: Concrete Concrete Steel Frame Steel Frame Wood Studs Wood Studs Drywall Drywall List others, as applicable List others, as applicable **Test Reports: Test Reports:** Is exact condition covered? Is exact condition covered? Rated Assembly? Rated Assembly? **Restrictions: Restrictions:** Substrate: Substrate: Floor Floor Roof Roof Wall (non-rated) Wall (non-rated) Wall (rated) Wall (rated) Structure: Structure: Wood Wood Concrete Concrete Curtain Wall Curtain Wall Other: Other: **Environmental Restrictions: Environmental Restrictions:** Outside Air Temperature Outside Air Temperature Inside Air Temperature Inside Air Temperature Relative Humidity Relative Humidity Wind Load Wind Load Snow Load **Snow Load Equipment Loads Equipment Loads** Moisture Tests Req'd? Moisture Tests Req'd? Guarantee: **Guarantee:** Availability: Availability:

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AV Upgrades 2021 Costs: Costs: REASON FOR NOT GIVING PRIORITY TO SPECIFIED ITEMS: SUBSTITUTION AFFECTS OTHER MATERIALS OR SYSTEMS: ☐YES (IF YES, ATTACH COMPLETE DATA) ☐NO SUBSTITUTION REQUIRES DIMENSIONAL REVISION OR REDESIGN OF STRUCTURE OR MEP WORK: ☐YES (IF YES, ATTACH COMPLETE DATA) ☐NO SAVINGS OR CREDIT TO OWNER FOR ACCEPTING SUBSTITUTE: THE ATTACHED DATA IS FURNISHED HEREWITH TO SUPPORT EVALUATION OF SUBSTITUTE: ☐ CATALOG □ DWGS □ SAMPLES ☐ TESTS ☐ REPORTS OTHER (LIST TYPE) THE UNDERSIGNED HEREBY CERTIFIES THAT THE SUBSTITUTION HAS BEEN FULLY CHECKED AND COORDINATED WITH THE CONTRACT DOCUMENTS. FIRM NAME BY ADDRESS

FAX

PHONE

**Shawnee Mission District** 

HTK Project #: 1707.05-004

### SECTION 004350 BID SECURITY FORMS

HTK Project #: 1707.05-004

PART 1 - GENERAL

### 1.01 APPLICABLE DOCUMENTS

- A. The American Institute of Architects Document A310 "Bid Bond" 2010 Edition, (and is bound herein.)
- B. Samples of the Bid Security Form may be obtained from the American Institute of Architects, 104 West 9<sup>th</sup> Street, Kansas City, Missouri 64105, 816-221-3485, or AIA Kansas, 700 Jackson Street, Suite 209, Topeka, Kansas 66603, 785-357-5308.
- C. A properly executed form is required to be submitted with each copy of the Bid.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

End of Section 004350

## DRAFT AIA° Document A101™ - 2017

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

**AGREEMENT** made as of the <u>« April »</u> day of <u>« 26 »</u> in the year <u>«2021 »</u> (In words, indicate day, month and year.)

### **BETWEEN** the Owner:

(Name, legal status, address and other information)

```
« Shawnee Mission School District »« »
« 8200 W. 71<sup>st</sup> St. »
« Shawnee Mission, KS 66204 »
« »
```

### and the Contractor:

(Name, legal status, address and other information)

```
« »
« »
« »
« »
```

### for the following Project:

(Name, location and detailed description)

```
« Shawnee Mission — AV Upgrades 2021 »
« »
« »
```

### The Architect:

(Name, legal status, address and other information)

```
« HTK Architects »« »
« 9300 W. 110<sup>th</sup> St. »
« Overland Park, KS 66210 »
« »
```

The Owner and Contractor agree as follows.

### ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An Additions and Deletions Report that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

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

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.



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### TABLE OF ARTICLES

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- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
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- 8 **MISCELLANEOUS PROVISIONS**
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### **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, Owner's Request for Proposals, Contractor's Proposal, Bid Instructions and Bid Form, 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.

#### DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION ARTICLE 3

§ 3.1 The date of commencement of the Work shall be:

(Check one of the following boxes.)

[ **«X»**] The date of this Agreement.

[ « » ] A date set forth in a notice to proceed issued by the Owner.

[ « » ] Established as follows: (Insert a date or a means to determine the date of commencement of the Work.)

« »

If a date of commencement of the Work shall be the date to be fixed in the issuance of the Purchase Order or Notice to Proceed for this Agreement unless otherwise noted. The Work shall not commence until all Bonds as required by the Contract are executed and filed with appropriate authorities and Contractor has provided the required Certificates of Insurance.

§ 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 Work:

	ne of the following boxes and complete the ne	ecessary information.)	
[ «	» ] Not later than « » ( « » ) calendar days	s from the date of commencemen	nt of the Work.
[ <b>«X</b>	By the following date: « July 30, 2021	»	
are to be	abject to adjustments of the Contract Time as completed prior to Substantial Completion of on of such portions by the following dates:	-	1 1 *
	Portion of Work	Substantial Completion Date	
	the Contractor fails to achieve Substantial Call be assessed as set forth in Section 4.5.	ompletion as provided in this Sec	ction 3.3, liquidated damages,
Contract.	4 CONTRACT SUM  Owner shall pay the Contractor the Contract The Contract Sum shall not exceed « » (\$ « Documents.		
§ 4.2 Alte § 4.2.1 Al	rnates Iternates, if any, included in the Contract Sur	m:	
	Item	Price	
execution	abject to the conditions noted below, the follow of this Agreement. Upon acceptance, the Oxlow each alternate and the conditions that m	wner shall issue a Modification to	o this Agreement.
	Item	Price	Conditions for Acceptance
	owances, if any, included in the Contract Sure each allowance.)	n:	
	each allowance.)	Price	
In connectincur or eadvance be Contracto	each allowance.)	Price \$2,000 It or Contract Documents, the Co e amount(s), without express write on from Owner shall be deemed	tten approval issued in a waiver of any claim by
In connectincur or eadvance be Contracted allowances  § 4.4 Unit	Item Unforseen Conditions  tion with allowances stated in the Agreemen xpend any monies in excess of the allowance by Owner. Failure to obtain prior authorization to increase the Contract Sum or seek additional contract Su	Price \$2,000  It or Contract Documents, the Coe amount(s), without express writion from Owner shall be deemed ional compensation related to such	tten approval issued in a waiver of any claim by th increase in the subject
In connectincur or eadvance be Contracted allowances  § 4.4 Unit	Item Unforseen Conditions  Ition with allowances stated in the Agreement expend any monies in excess of the allowance by Owner. Failure to obtain prior authorization to increase the Contract Sum or seek additional end amount (s).	Price \$2,000  It or Contract Documents, the Coe amount(s), without express writion from Owner shall be deemed ional compensation related to such	tten approval issued in a waiver of any claim by th increase in the subject
In connectincur or eadvance be Contractor allowances § 4.4 Unit (Identify to see the contractor)	Item Unforseen Conditions  Ition with allowances stated in the Agreement xpend any monies in excess of the allowance by Owner. Failure to obtain prior authorization to increase the Contract Sum or seek additional amount(s).  It prices, if any:  The item and state the unit price and quantity	Price \$2,000  It or Contract Documents, the Coe amount(s), without express writer on from Owner shall be deemed it in a compensation related to such dimitations, if any, to which the amount of the compensations.	tten approval issued in a waiver of any claim by the increase in the subject unit price will be applicable.)

amounts that are impossible to compute and ascertain with certainty as a basis for recovery by the Owner of actual damages, and that liquidated damages represent a fair, reasonable and appropriate estimate thereof. Accordingly, in lieu of actual damages for such delay, Contractor agrees that liquidated damages may be assessed and recovered by Owner as against Contractor in the event of delayed completion and without Owner being required to present any evidence of the amount or character of actual damages sustained by reason thereof. Therefore, Contractor shall be liable to Owner for payment of liquidated damages in the amount of One Thousand and 0/100 Dollars (\$1,000.00) per calendar day that Substantial Completion is delayed beyond the specified time. Such liquidated damages are intended to represent estimated actual damages and are not intended as a penalty, and Contractor shall pay them to Owner without limiting Owner's right to terminate this agreement for default as provided elsewhere herein.

### § 4.6 Other:

(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

**«** »

### ARTICLE 5 PAYMENTS

### § 5.1 Progress Payments

- § 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.
- § 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:
- « Contractor's Application for Payment shall be submitted to Owner and Architect in accordance with Article 9.3 of General Conditions, AIA A201 (2007 Edition), as modified.»
- § 5.1.3 Provided that an Application for Payment is received by the Architect not later than the «last» day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the «30th» day of the «following» month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than «Sixty» ( «60» ) days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

- § 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<sup>TM</sup>\_2017, General Conditions of the Contract for Construction, 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 first include:
  - .1 That portion of the Contract Sum properly allocable to completed Work;
  - .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
  - .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.
- § 5.1.6.2 The amount of each progress payment shall then be reduced by:
  - .1 The aggregate of any amounts previously paid by the Owner;

- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- .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; and
- 5 Retainage withheld pursuant to Section 5.1.7.

### § 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

**«** »

§ 5.1.7.1.1 The following items are not subject to retainage:

(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

**«** »

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:

(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

« »

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:

(Insert any other conditions for release of retainage upon Substantial Completion.)

**«** »

- § 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.
- § 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 and stored at the site.
- **5.1.10** Contractor acknowledges that, as a condition precedent to the Architect's Certification of Substantial Completion, among others, the Contractor shall provide Owner with:
  - .1 Keys, if applicable to the Project

### § 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, 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.
  - .3 furnished copies of all written warranties and O&M manuals, as applicable;

furnished copies of all final releases executed by Contractor and its subcontractors and major suppliers; .5 furnished executed Final Consent to Payment by Surety; .6 furnished spare parts and maintenance materials to the extent required by Contract Documents; .7 furnished completed punch list, as approved by Architect and Owner; and 8. furnished complete as-built documentation, if required by the Contract Documents. § 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, and complete satisfaction of the conditions precedent in Section 5.2.1 above .: **«** » § 5.3 Interest Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is (Insert rate of interest agreed upon, if any.) « » % « » ARTICLE 6 **DISPUTE RESOLUTION** § 6.1 Initial Decision Maker The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201-2017, As stated in greater detail in Section 15 of the General Conditions, the Architect will approve or reject Claims by written decision and shall notify the Claimant of any change in the Contract Sum or Contract Time, or both. The Architect's approval or rejection of the Claim shall be final and binding on the Claimant, subject to litigation. (If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.) **«** » **«** » **«** » **«** » § 6.2 Binding Dispute Resolution For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201-2017, the method of binding resolution shall be as follows:: (Check the appropriate box.) [ « » ] Arbitration pursuant to Section 15.4 of AIA Document A201–2017 [ **«X»** ] Litigation in a court of competent jurisdiction [ **« »** ] Other (Specify) Litigation in a court of competent jurisdiction shall be the only binding dispute resolution. However, the parties shall be free to pursue alternative dispute resolution methods if mutually agreed upon. »

.4

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

### ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

- § 8.7.1 To the fullest extent permitted by law, Contractor shall indemnify and hold harmless Owner, its Board of Education, Officers, Directors, Partners, Agents, Consultants, Employees and Sub-Contractors of each and any of them from and against all claims, costs, damages, losses and expenses (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals in all courts or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, damage or expense is attributable to any act or failure to act, negligent or otherwise, of Contractor, of any subcontractor (meaning anyone, including but not limited to consultants having a contract with Contractor or a subcontractor for a part of the services), or of anyone directly or indirectly employed by Contractor or by any subcontractor, or of anyone for whose acts the Contractor or its subcontractor may be liable, in connection with the Work.
- § 8.7.2 Contractor, its employees, agents, subcontractors and representatives shall comply with all of Owner's Policies, Regulations, Rules and Procedures, including the tobacco-free campus Policy.
- § 8.7.3. Contractor and its employees shall not interact with, contact, or otherwise access students on District premises without express approval by the District. District may require Contractor and its employees undergo criminal background checks before entering areas of the District premises occupied by students or before interacting with students. District reserves the right to exclude persons from its premises.
- § 8.7.4 Owner and Contractor may withhold assessed penalties from Contractors and any of its subcontractors, respectively, and for any fines imposed to or upon Owner for non-compliance to procedures outlined in the respective laws.
- § 8.7.5 This Agreement and any Attachments may only be amended, modified or supplemented with the written agreement of Owner and Contractor.

**«** »

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

### ARTICLE 8 MISCELLANEOUS PROVISIONS

- § 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.
- 8.1.1 In the event that undisputed amounts are not paid by Owner to Contractor within 30 days after Owner receives a timely, properly completed undisputed request for payment, the Owner shall pay interest computed at the rate of 18% per annum on the undisputed amount, which shall begin to accrue on the eighth day after Architect receives an undisputed request for payment from Contractor. Owner agrees that all obligations regarding payment are subject to the Kansas Fairness in Public Construction Contract Act, K.S.A. § 16-1901, et seq.

### § 8.2 The Owner's representative:

(Name, address, email address, and other information)

<b>«</b>	»	
<b>‹</b> ‹	: <b>»</b>	
<b>‹</b> ‹	: »	

,	ess, email address, and other information)
« » « » « » « »	
§ 8.4 Neither other party.	the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the
2017, Standar	ce and Bonds Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101 <sup>TM</sup> —rd Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, surance and Bonds, and elsewhere in the Contract Documents.
§ 8.5.2 The C the Contract I	Contractor shall provide bonds as set forth in AIA Document A101™_2017 Exhibit A, and elsewhere in Documents.
with AIA Doo otherwise set (If other than format such a	in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance cument E203 <sup>TM</sup> —2013, Building Information Modeling and Digital Data Exhibit, if completed, or as forth below: in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic as name, title, and email address of the recipient and whether and how the system will be required to add receipt for the transmission.)
<b>«</b> »	
« » <b>§ 8.7</b> Other p	rovisions:
	rovisions:
§ 8.7 Other powers was ARTICLE 9	ENUMERATION OF CONTRACT DOCUMENTS greement is comprised of the following documents:  AIA Document A101 <sup>TM</sup> _2017, Standard Form of Agreement Between Owner and Contractor, as amended.  AIA Document A101 <sup>TM</sup> _2017, Exhibit A, Insurance and Bonds, as amended.  AIA Document A201 <sup>TM</sup> _2017, General Conditions of the Contract for Construction, as amended and contained in the Project Manual.  AIA Document E203 <sup>TM</sup> _2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:  (Insert the date of the E203-2013 incorporated into this Agreement.)
§ 8.7 Other provided with a second se	ENUMERATION OF CONTRACT DOCUMENTS greement is comprised of the following documents:  AIA Document A101 <sup>TM</sup> —2017, Standard Form of Agreement Between Owner and Contractor, as amended.  AIA Document A101 <sup>TM</sup> —2017, Exhibit A, Insurance and Bonds, as amended.  AIA Document A201 <sup>TM</sup> —2017, General Conditions of the Contract for Construction, as amended and contained in the Project Manual.  AIA Document E203 <sup>TM</sup> —2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:
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§ 8.3 The Contractor's representative:

.6

Specifications As stated in the Project Manual

### Attached Exhibit B

		Date	Pages
. 11 1 10			
Addenda, if any:			
Number	Date	Pages	
		-	
Portions of Addenda relating to be Documents unless the bidding or			
Other Exhibits: (Check all boxes that apply and i required.)	include appropriate inform	ation identifying the ext	nibit where
[ ( ) ] (Insert the date of the E.	204-2017 incorporated into	o this Agreement.)	
« All other conditions and section Invitations, Instructions, Contrac Project manual, and any Addenda	t and Bond Forms, and all	other sample forms four	
[ « » ] The Sustainability Plan:	:		1
Title	Date	Pages	<u>/                                    </u>
	er Conditions of the Contra		Pages
[ <b>« »</b> ] Supplementary and other Document	er Conditions of the Contra	Date	Pages
	Title  elow: cluding all specifications and  ssued after execution of this ttachment, Form DA-146a ents that are intended to for es that the advertisement or oid or proposal, portions of tion furnished by the Owne entract Documents unless e	Date  and Bidding Documents  as Agreement.  by invitation to bid, Instruct of the Contract to the invitation to bid, Instruct of Addenda relating to bid or in anticipation of recently in this Agreement of the interval of t	Documents. AIA actions to Bidders dding or proposa viving bids or ment. Any such

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

**OWNER** (Signature)

«Brad Stratton »« School Board President »

(Printed name and title)

**CONTRACTOR** (Signature)

« »« »

(Printed name and title)



# DRAFT AIA Document A101™ - 2017

### Exhibit A

### Insurance and Bonds

This Insurance and Bonds Exhibit is part of the Agreement, between the Owner and the Contractor, dated the « April » day of « 26 » in the year « 2021 » (In words, indicate day, month and year.)

### for the following **PROJECT**:

(Name and location or address)

« Shawnee Mission AV Upgrades 2021 » « »

### THE OWNER:

(Name, legal status and address)

« Shawnee Mission School District »« »
« 8200 W. 71<sup>st</sup>. St.
Shawnee Mission, 66204 »

### THE CONTRACTOR:

(Name, legal status and address)

« TBD »« » « »

### TABLE OF ARTICLES

A.1 GENERAL

A.2 OWNER'S INSURANCE

A.3 CONTRACTOR'S INSURANCE AND BONDS

A.4 SPECIAL TERMS AND CONDITIONS

### ARTICLE A.1 GENERAL

The Owner and Contractor shall purchase and maintain insurance, and provide bonds, as set forth in this Exhibit. As used in this Exhibit, the term General Conditions refers to AIA Document A201<sup>TM</sup>\_2017, General Conditions of the Contract for Construction.

### ARTICLE A.2 OWNER'S INSURANCE

### § A.2.1 General

Prior to commencement of the Work, the Owner shall secure the insurance, and provide evidence of the coverage, required under this Article A.2 and, upon the Contractor's request, provide a copy of the property insurance policy or policies required by Section A.2.3. The copy of the policy or policies provided shall contain all applicable conditions, definitions, exclusions, and endorsements.

### § A.2.2 Liability Insurance

The Owner shall be responsible for purchasing and maintaining the Owner's usual general liability insurance.

### ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An Additions and Deletions Report that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

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

This document is intended to be used in conjunction with AIA Document A201™-2017, General Conditions of the Contract for Construction. Article 11 of A201™-2017 contains additional insurance provisions.



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### § A.2.3 Required Property Insurance

### § A.2.3.3 Insurance for Existing Structures

If the Work involves remodeling an existing structure or constructing an addition to an existing structure, the Owner shall purchase and maintain, until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, "all-risks" property insurance, on a replacement cost basis, protecting the existing structure against direct physical loss or damage from the causes of loss identified in Section A.2.3.1, notwithstanding the undertaking of the Work.

## ARTICLE A.3 CONTRACTOR'S INSURANCE AND BONDS § A.3.1 General

§ A.3.1.1 Certificates of Insurance. The Contractor shall provide certified certificates of insurance acceptable to the Owner evidencing compliance with the requirements in this Article A.3 and requiring a thirty (30) day mandatory cancellation notice at the following times: (1) prior to commencement of the Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Owner's written request and within ten (10) days of the request. An additional certificate evidencing continuation of commercial liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment and thereafter upon renewal or replacement of such coverage until the expiration of the periods required by Section A.3.2.1 and Section A.3.3.1. The certificates will show the Owner as an additional insured on the Contractor's Commercial General Liability and excess or umbrella liability policy or policies.

§ A.3.1.2 Deductibles and Self-Insured Retentions. The Contractor shall disclose to the Owner any deductible or self-insured retentions applicable to any insurance required to be provided by the Contractor.

§ A.3.1.3 Additional Insured Obligations. To the fullest extent permitted by law, the Contractor shall cause the commercial general liability coverage to include (1) the Owner, the Architect, and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions for which loss occurs during completed operations. The additional insured coverage shall be primary and non-contributory to any of the Owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) forms CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's consultants, CG 20 32 07 04.

### § A.3.2 Contractor's Required Insurance Coverage

§ A.3.2.1 The Contractor shall purchase and maintain the following types and limits of insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below: (If the Contractor is required to maintain insurance for a duration other than the expiration of the period for correction of Work, state the duration.)

«Until such time as the Owner has determined that the Agreement is complete. Failure of Contractor to maintain any insurance required under this Agreement shall be considered a material breach of the Agreement. »

### § A.3.2.2 Commercial General Liability

§ A.3.2.2.1 Commercial General Liability insurance for the Project written on an occurrence form with policy limits of not less than « » (\$ « » ) each occurrence, « » (\$ « » ) general aggregate, and « » (\$ « » ) aggregate for products-completed operations hazard, providing coverage for claims including

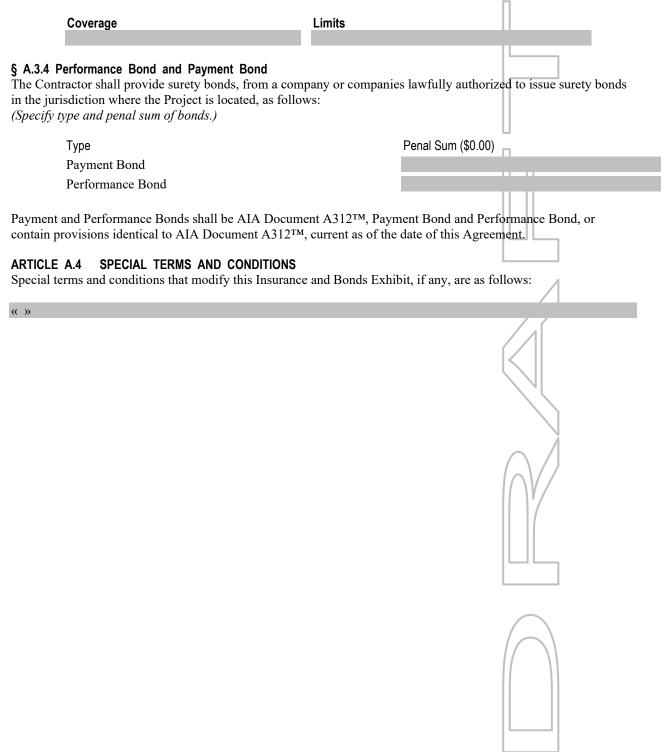
- .1 damages because of bodily injury, sickness or disease, including occupational sickness or disease, and death of any person;
- .2 personal injury and advertising injury;
- .3 damages because of physical damage to or destruction of tangible property, including the loss of use of such property;
- .4 bodily injury or property damage arising out of completed operations; and

- .5 the Contractor's indemnity obligations under Section 3.18 of the General Conditions.
- **§ A.3.2.2.2** The Contractor's Commercial General Liability policy under this Section A.3.2.2 shall not contain an exclusion or restriction of coverage for the following:
  - .1 Claims by one insured against another insured, if the exclusion or restriction is based solely on the fact that the claimant is an insured, and there would otherwise be coverage for the claim.
  - .2 Claims for property damage to the Contractor's Work arising out of the products-completed operations hazard where the damaged Work or the Work out of which the damage arises was performed by a Subcontractor.
  - .3 Claims for bodily injury other than to employees of the insured.
  - .4 Claims for indemnity under Section 3.18 of the General Conditions arising out of injury to employees of the insured.
  - .5 Claims or loss excluded under a prior work endorsement or other similar exclusionary language.
  - .6 Claims or loss due to physical damage under a prior injury endorsement or similar exclusionary language.
  - .7 Claims related to residential, multi-family, or other habitational projects, if the Work is to be performed on such a project.
  - .8 Claims related to roofing, if the Work involves roofing.
  - .9 Claims related to exterior insulation finish systems (EIFS), synthetic stucco or similar exterior coatings or surfaces, if the Work involves such coatings or surfaces.
  - .10 Claims related to earth subsidence or movement, where the Work involves such hazards.
  - **.11** Claims related to explosion, collapse and underground hazards, where the Work involves such hazards.
- § A.3.2.3 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than « » (\$ « » ) per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles along with any other statutorily required automobile coverage.
- § A.3.2.4 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella insurance policies result in the same or greater coverage as the coverages required under Section A.3.2.2 and A.3.2.3, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.
- § A.3.2.5 Workers' Compensation at statutory limits.
- § A.3.2.6 Employers' Liability with policy limits not less than « » (\$ « » ) each accident, « » (\$ « » ) each employee, and « » (\$ « » ) policy limit.
- § A.3.2.7 Jones Act, and the Longshore & Harbor Workers' Compensation Act, as required, if the Work involves hazards arising from work on or near navigable waterways, including vessels and docks
- § A.3.2.8 If the Contractor is required to furnish professional services as part of the Work, the Contractor shall procure Professional Liability insurance covering performance of the professional services, with policy limits of not less than « » (\$ « » ) per claim and « » (\$ « » ) in the aggregate.
- § A.3.2.9 If the Work involves the transport, dissemination, use, or release of pollutants, the Contractor shall procure Pollution Liability insurance, with policy limits of not less than « » (\$ « » ) per claim and « » (\$ « » ) in the aggregate.
- § A.3.2.10 Coverage under Sections A.3.2.8 and A.3.2.9 may be procured through a Combined Professional Liability and Pollution Liability insurance policy, with combined policy limits of not less than « » (\$ « » ) per claim and « » (\$ « » ) in the aggregate.

	urance for maritime liability risks associated with the operation of a vessel, if the Work requires such h policy limits of not less than « » (\$ « » ) per claim and « » (\$ « » ) in the aggregate.	
§ A.3.2.12 Insurance for the use or operation of manned or unmanned aircraft, if the Work requires such activities, with policy limits of not less than « » (\$ « » ) per claim and « » (\$ « » ) in the aggregate.		
§ A.3.3.1 Insuinsurance con Contractor shin Section 12. (If the Contra	rance selected and described in this Section A.3.3 shall be purchased from an insurance company or appanies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The all maintain the required insurance until the expiration of the period for correction of Work as set forth 2.2 of the General Conditions, unless a different duration is stated below:  ctor is required to maintain any of the types of insurance selected below for a duration other than the the period for correction of Work, state the duration.)	
« »		
Section A.3.3 (Select the type	bes of insurance the Contractor is required to purchase and maintain by placing an $X$ in the box(es) scription(s) of selected insurance. Where policy limits are provided, include the policy limit in the	
[ « »]	§ A.3.3.2.1 Property insurance of the same type and scope satisfying the requirements identified in Section A.2.3, which, if selected in this section A.3.3.2.1, relieves the Owner of the responsibility to purchase and maintain such insurance except insurance required by Section A.2.3.1.3 and Section A.2.3.3. The Contractor shall comply with all obligations of the Owner under Section A.2.3 except to the extent provided below. The Contractor shall disclose to the Owner the amount of any deductible. Upon request, the Contractor shall provide the Owner with a copy of the property insurance policy or policies required. The Owner shall adjust and settle the loss with the insurer and be the trustee of the proceeds of the property insurance in accordance with Article 11 of the General Conditions unless otherwise set forth below:  (Where the Contractor's obligation to provide property insurance differs from the Owner's obligations as described under Section A.2.3, indicate such differences in the space below. Additionally, if a party other than the Owner will be responsible for adjusting and settling a loss with the insurer and acting as the trustee of the proceeds of property insurance in accordance with Article 11 of the General Conditions, indicate the responsible party below.)	
[ « » ]	§ A.3.3.2.2 Railroad Protective Liability Insurance, with policy limits of not less than « » (\$ « » ) per claim and « » (\$ « » ) in the aggregate, for Work within fifty (50) feet of railroad property.	
[ « » ]	§ A.3.3.2.3 Asbestos Abatement Liability Insurance, with policy limits of not less than « » (\$ « » ) per claim and « » (\$ « » ) in the aggregate, for liability arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos-containing materials.	
[ <b>« »</b> ]	§ A.3.3.2.4 Insurance for physical damage to property while it is in storage and in transit to the construction site on an "all-risks" completed value form.	
[ <b>« »</b> ]	§ A.3.3.2.5 Property insurance on an "all-risks" completed value form, covering property owned by the Contractor and used on the Project, including scaffolding and other equipment.	
[ <b>« »</b> ]	§ A.3.3.2.6 Other Insurance  The Owner may require insurance coverage in excess of the types and amounts required in this Agreement. Contractor shall attempt in good faith to obtain quotes for such additional coverage and	

provide them to Owner for review. Contractor shall purchase any such additional insurance as may be requested by the Owner in writing. Owner shall pay any additional premium for such additional coverage.

(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)



## DRAFT AIA Document A201™ - 2017

### General Conditions of the Contract for Construction

### for the following PROJECT:

(Name and location or address)

« Shawnee Mission District AV Upgrades 2021 »

« »

### THE OWNER:

(Name, legal status and address)

« Shawnee Mission School District »« »

« 8200 W. 71st St. Shawnee Mission, KS 66204 »

### THE ARCHITECT:

(Name, legal status and address)

« HTK Architects »« »

« 9300 W. 110th Suite 150, Overland Park, KS 66210 »

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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.

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.



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#### Architect's Authority to Reject Work 3.5, 4.2.6, 12.1.2, 12.2.1 (Topics and numbers in bold are Section headings.) Architect's Copyright 1.1.7, 1.5 Acceptance of Nonconforming Work Architect's Decisions 9.6.6, 9.9.3, **12.3** 3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 4.2.14, 6.3, Acceptance of Work 7.3.4, 7.3.9, 8.1.3, 8.3.1, 9.2, 9.4.1, 9.5, 9.8.4, 9.9.1, 9.6.6, 9.8.2, 9.9.3, 9.10.1, 9.10.3, 12.3 13.4.2, 15.2 Access to Work Architect's Inspections **3.16**, 6.2.1, 12.1 3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.8.3, 9.9.2, 9.10.1, 13.4 **Accident Prevention** Architect's Instructions 3.2.4, 3.3.1, 4.2.6, 4.2.7, 13.4.2 Acts and Omissions Architect's Interpretations 3.2, 3.3.2, 3.12.8, 3.18, 4.2.3, 8.3.1, 9.5.1, 10.2.5, 4.2.11, 4.2.12 10.2.8, 13.3.2, 14.1, 15.1.2, 15.2 Architect's Project Representative Addenda 4.2.10 Architect's Relationship with Contractor 1.1.1 Additional Costs, Claims for 1.1.2, 1.5, 2.3.3, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2, 3.5, 3.7.4, 3.7.5, 3.9.2, 3.9.3, 3.10, 3.11, 3.12, 3.16, 3.7.4, 3.7.5, 10.3.2, 15.1.5 3.18, 4.1.2, 4.2, 5.2, 6.2.2, 7, 8.3.1, 9.2, 9.3, 9.4, 9.5, **Additional Inspections and Testing** 9.7, 9.8, 9.9, 10.2.6, 10.3, 11.3, 12, 13.3.2, 13.4, 15.2 9.4.2, 9.8.3, 12.2.1, **13.4 Additional Time, Claims for** Architect's Relationship with Subcontractors 3.2.4, 3.7.4, 3.7.5, 3.10.2, 8.3.2, **15.1.6** 1.1.2, 4.2.3, 4.2.4, 4.2.6, 9.6.3, 9.6.4, 11.3 **Administration of the Contract** Architect's Representations 3.1.3, **4.2**, 9.4, 9.5 9.4.2, 9.5.1, 9.10.1 Advertisement or Invitation to Bid Architect's Site Visits 1.1.1 3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.4 Aesthetic Effect Asbestos 4.2.13 10.3.1 Allowances Attorneys' Fees 3.18.1, 9.6.8, 9.10.2, 10.3.3 **Applications for Payment** Award of Separate Contracts 4.2.5, 7.3.9, 9.2, **9.3**, 9.4, 9.5.1, 9.5.4, 9.6.3, 9.7, 9.10 6.1.1, 6.1.2 Award of Subcontracts and Other Contracts for Portions of the Work 2.1.1, 2.3.1, 2.5, 3.1.3, 3.10.2, 3.12.8, 3.12.9, 3.12.10.1, 4.2.7, 9.3.2, 13.4.1 5.2 **Basic Definitions Arbitration** 8.3.1, 15.3.2, **15.4** 1.1 **ARCHITECT Bidding Requirements** 1.1.1 Architect, Definition of **Binding Dispute Resolution** 8.3.1, 9.7, 11.5, 13.1, 15.1.2, 15.1.3, 15.2.1, 15.2.5, Architect, Extent of Authority 15.2.6.1, 15.3.1, 15.3.2, 15.3.3, 15.4.1 Bonds, Lien 2.5, 3.12.7, 4.1.2, 4.2, 5.2, 6.3, 7.1.2, 7.3.4, 7.4, 9.2, 7.3.4.4, 9.6.8, 9.10.2, 9.10.3 9.3.1, 9.4, 9.5, 9.6.3, 9.8, 9.10.1, 9.10.3, 12.1, 12.2.1, **Bonds, Performance, and Payment** 13.4.1, 13.4.2, 14.2.2, 14.2.4, 15.1.4, 15.2.1 7.3.4.4, 9.6.7, 9.10.3, **11.1.2**, 11.1.3, **11.5** Architect, Limitations of Authority and **Building Information Models Use and Reliance** Responsibility 2.1.1, 3.12.4, 3.12.8, 3.12.10, 4.1.2, 4.2.1, 4.2.2, 1.8 4.2.3, 4.2.6, 4.2.7, 4.2.10, 4.2.12, 4.2.13, 5.2.1, 7.4, **Building Permit** 9.4.2, 9.5.4, 9.6.4, 15.1.4, 15.2 3.7.1 Capitalization Architect's Additional Services and Expenses 2.5, 12.2.1, 13.4.2, 13.4.3, 14.2.4 Architect's Administration of the Contract Certificate of Substantial Completion 3.1.3, 3.7.4, 15.2, 9.4.1, 9.5 9.8.3, 9.8.4, 9.8.5 Architect's Approvals **Certificates for Payment** 2.5, 3.1.3, 3.5, 3.10.2, 4.2.7 4.2.1, 4.2.5, 4.2.9, 9.3.3, **9.4**, 9.5, 9.6.1, 9.6.6, 9.7,

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Owner's Right to Terminate the Contract

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### ARTICLE 1 GENERAL PROVISIONS

### § 1.1 Basic Definitions

### § 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order approved by the Owner pursuant to this Agreement, (3) a Construction Change Directive approved by the Owner pursuant to this Agreement or (4) a written order for a minor change in the Work issued by the Architect.

### § 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. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

### § 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and

enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

- § 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.
- § 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

#### § 1.3 Capitalization

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

## § 1.4 Interpretation

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

# § 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

- § 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Subsubcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.
- § 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.
- § 1.5.3 Number of copies furnished. The successful Contractor will be supplied with a maximum of ten (10) sets of construction documents for construction purposes, at no charge. Additional sets will be furnished at Contractor's request, for the cost of reproduction.

#### § 1.6 Notice

- § 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.
- § 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

## § 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203<sup>TM</sup>–2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

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

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203<sup>TM</sup>—2013, Building Information Modeling and Digital Data Exhibit, and the requisite

AIA Document G202<sup>TM</sup>–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

## ARTICLE 2 OWNER

# § 2.1 General

- § 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.
- § 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.
- § 2.1.3 "The Owner" refers to the Shawnee Mission Unified School District No, 512, 8200 W. 71st Street, Overland Park, Kansas 66204.

## § 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 shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.
- § 2.3.4 If the employment of the Architect terminates, the Owner shall employ a successor § 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work. Contractor shall be required, in the event of digging or disruption of soil, to verify utility locations independently through Kansas OneCall.
- § 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, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

# § 2.4 Owner's Right to Stop the Work

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

#### § 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or fails to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or

thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses, assessment of liquidated damages, and compensation for the Owner's or Architect's additional services made necessary by such default, neglect or failure. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

#### ARTICLE 3 CONTRACTOR

#### § 3.1 General

- § 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.
- § 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.
- § 3.1.3 The Contractor shall not be relieved of 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 any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.
- § 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.
- § 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.
- § 3.2.5 The Contractor makes the following representations: Contractor has examined and carefully studied the Contract Documents and any other related data identified in the Contract Documents; Contractor is familiar with and is satisfied as to all federal, state, and local laws and regulations that may affect cost, progress, and performance of the Work; Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the agreed upon price, within the Contract Documents times, and in accordance with the other terms and conditions of the Contract Documents; Contractor is aware of the general nature of the work to be performed by Owner and others at the site that relates to the Work as indicated in the Contract Documents; Contractor has correlated the information known to Contractor, information and observations

obtained from visits to the site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents; the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work; Owner does not warrant that the Contract documents or Plans will be free from defect or error and Contractor is responsible for verifying viability of any Plans; and Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute.

# § 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 be performed in a workmanlike manner and will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. Contractor further warrants that the materials and labor provided pursuant to this Agreement will be warranted to be free from defects and materials and workmanship for a period of one (1) year from the date of completion of the work. Any manufacturer's warranties for products which exceed this one (1) year period shall be assigned to Owner to the extent allowed by the manufacturer. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by

Owner, remove it from the project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others). When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work. Contractor shall provide duplicate, notarized copies of all warranty documentation. Contractor shall also execute Contractor's submittals and assemble warranty documents executed by subcontractors, suppliers and manufacturers, and assemble the same in a binder with a durable plastic cover and a table of contents. This binder shall be delivered by Contractor to Owner prior to Contractor submitting an invoice for final payment. For warranty documentation related to equipment put into use with Owner's permission during construction, Contractor shall submit the required warranty documentation to Owner within 10 days of the equipment first operating. For warranty documentation related to items of the Work delayed materially beyond the completion date stated in this Agreement, Contractor shall submit the required warranty documentation to Owner within ten (10) days after acceptance of the Work by Owner, and will list the date of acceptance of the Work as the start of the warranty period.

- § 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.
- § 3.5.3 Each Subcontractor, Sub-Subcontractor, or Supplier shall guarantee to the General Contractor all work, portions of work, and items supplied, as the case may be, against defects resulting from the use of any inferior materials, equipment or workmanship for one (1) year from the date of final completion or beneficial occupancy of the project by the Owner, whichever is earlier. It shall be the General Contractor's responsibility to ensure compliance to the warranty by each Subcontractor, Sub-Subcontractor, or Supplier.
- § 3.5.4 In any case where, in fulfilling the requirements of this Contract or Warranty, the Contractor, Subcontractor, Sub-Subcontractor, or Supplier disturbs any other work in place or under contract, he shall be responsible to perform, arrange, and pay for restoring such to original condition.

#### § 3.6 Taxes

All taxes, other than sales taxes, incurred in connection with the Work and Project or portions thereof provided by Contractors, regardless of when enacted, shall be paid by the Contractor.

# § 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 received or negotiations concluded.
- § 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.
- § 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction and bear any legal or equitable liability for said actions..

## § 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,
  - allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
  - .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
  - .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.
- § 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

# § 3.9 Superintendent

- § 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.
- § 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect 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 Contract, 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 Contract 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 requiring submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been reviewed by the Architect. Such work shall be in accordance with submittals.
- § 3.12.8 The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's review of Shop Drawings, Products Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and the Architect has given written approval to the specific 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 review 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 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 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, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity 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" refers to incite HTK Architects, whose name appears on the drawings and who by Contract with the Owner, is authorized to prepare all drawings, specifications, and details of this work.

§ 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, Contractor, and Architect. Consent shall not be unreasonably withheld.

#### § 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 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, as provided in the Owner – Architect Agreement, 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 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. 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 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 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 review 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, 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 Subsubcontractors.

# § 5.4 Contingent Assignment of Subcontracts

- § 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that
  - .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
  - **.2** assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

- § 5.4.2 Upon such assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.
- § 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

## ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

# § 6.1 Owner's Right to Perform Construction 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 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 cost among those responsible.

### ARTICLE 7 CHANGES IN THE WORK

#### § 7.1 General

- § 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.
- § 7.1.2 A Change Order shall be based upon agreement among the Owner, 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 so long as it does not increase the Contract Sum..
- § 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.
- § 7.1.4 Notwithstanding anything in this Article 7 and elsewhere in the Contract Documents, for any Change Order or Construction Change Directive which changes the Contract Sum, the following conditions apply:
- .1 If the change is requested by the Architect for work falling under a fixed price contract, the amount will be based on the Contactor's price quotation.
- .2 For changes requested by the Contractor, the amount will be based on the Contractor's request for a Change Order or Change Directive as approved by the Architect and Owner.
- .3 For pre-determined unit prices and quantities, the amount will be based on the fixed unit prices.
- .4 For a change ordered by the Architect without a quotation for the Contractor, the amount will be determined by the Architect based on the Contractor's substantiation of costs as specified for Time and Material work.
- .5 The allowance for any overhead and profit, combined, derived by Contractor or any subcontractors as a result of any change, including the total cost to the Owner, shall be no more than 5% total, which shall include the cost of labor and materials by both Contractor, Contractor's subcontractors and sub-subcontractors.
- .6 The allowance for overhead and profit shall account for ALL time associated with the Change Order or Change Directive. Compensation for time generating documents will not be allowed.
- .7 In order to facilitate checking of quotations for extras and credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs, including labor, materials and subcontracts. Labor and materials shall be itemized. Where major cost items are subcontracts, they shall also be itemized.

.8 The allowance for Payment and Performance Bond costs associated with any Change Order or Change Directive shall not exceed 1.5% and shall be used on both additive and deductive Change Orders or Change Directives.

# § 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 one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- **.4** As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the 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. 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 specifically defined.
- § 8.1.5 The Contract Time for completion of the Contract for the Project, under the Base Bid, as listed on the Project Timeline and mutually agreed between Owner and Contractor from the written Notice to Proceed issued by the Architect to Substantial completion of the work as defined in section 9.8.1, including authorized adjustments thereto.

In the event the Contractor has not completed the work within the time allotted, the contractor agrees to pay the Owner, or deduct from its contract sum, not as a penalty but as liquidated damages, the sum of \$1,000.00 for each and every calendar day that the work remains incomplete after the time stipulated for Substantial Completion.

**§ 8.1.6** The Contractor shall be responsible to reimburse the Owner for the cost of a Project Representative after the time of completion has expired and until the date of Substantial Completion as certified by the Architect.

#### § 8.2 Progress and Completion

- § 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.
- § 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

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

#### § 8.3 Delays and Extensions of Time

- § 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes not involving Subcontractors or Sub-subcontractors retained by Contractor, 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. If an extension of time is granted to the Contractor under the terms of the Contract Documents, the Contractor shall absorb all costs for General Conditions and General Requirements during the time extension.
- § 8.3.4 The Contractor shall have no claim for damages against either the Owner or the Architect by reason of delay if the date of Substantial Completion of the work is within the Contract Time as defined in § 8.1.5.
- § 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.
- § 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

#### ARTICLE 9 PAYMENTS AND COMPLETION

#### § 9.1 Contract Sum

- § 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents,
- § 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

# § 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the 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 form of Application for Payment shall be notarized AIA Document G702, Application G702, Application and Certification for Payment, supported by AIA Document G703, Continuation Sheet. At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. 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 if provided for in the Contract Documents.
- § 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.
- § 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

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- § 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.
- § 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all 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 seven days 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;
  - reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum; .4
  - .5 damage to the Owner or a Separate Contractor;
  - 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

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- .7 repeated failure to carry out the Work in accordance with the Contract Documents.
- § 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.
- § 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.
- § 9.5.4 If the Architect 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

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

# § 9.8 Substantial Completion

- § 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so 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 Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

# § 9.9 Partial Occupancy or Use

- § 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.
- § 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.
- § 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

# § 9.10 Final Completion and Final Payment

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

§ 9.10.2 The Contractor shall satisfy immediately any lien or encumbrance which, because of any act or default of the Contractor or any person or entity for whom Contractor is responsible, including its suppliers and subcontractors, is filed against the premises, and shall indemnify and save the Owner harmless against all resulting loss and expenses, including attorney's fees. The Contractors shall provide Final Lien Waiver from all subcontractors and material suppliers before project closeout. 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.
- .5 related to any latent defects that are not apparent at the time of completion.

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

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

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

§ 10.3.4 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.

## § 10.4 Emergencies

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

## ARTICLE 11 INSURANCE AND BONDS

# § 11.1 Contractor's Insurance and Bonds

- § 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.
- § 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located. Insurance required to be furnished by the Contractor with the premium included in the Proposal Sum, shall be maintained during the life of this contract and shall be written to a minimum of the following limits:
- (1) Workmen's Compensation Insurance to the Statutory limits required by State Law, and Employer's Liability Insurance covering liability under the common law for injuries or death to any such employee or employees that, for whatsoever reasons, are not less than \$500,000.00 for all damages arising out of bodily injury to or death of employees in any one accident.
- (2) Comprehensive General Liability insurance providing for a limit of not less than \$2,000,000.00 for all damages arising out of bodily injury to or the death of one person (and subject to that limit for each person), not less than \$2,000,000.00 for damages arising out of bodily injury to or the death of two or more persons in any one occurrence, and not less than \$2,000,000.00 for all damages arising out of injury to or destruction of property in any one occurrence. Said insurance policy shall contain no exclusions whatsoever relative to blasting, explosion, demolition, injury to any building or structure due to excavation, pile driving, shoring or underpinning (sometimes knows as X, C, and U Exclusions).
- (3) Automobile Public Liability (Bodily Injury) and Property Damage Liability Insurance, to include coverage of all vehicles hired by Contractor, owned by Contractor's employees and used in his business, and/or owned by the Contractor, providing for a limit of not less than \$1,000,000.00 for all damages arising out of bodily injury to or the

death of one person (and subject to that limit for each person), not less than \$1,000,000.00 for all damages arising out of bodily injury to or the death of two or more persons in any one occurrence and not less than \$5,000,000.00 for all damages arising out of injury to or destruction of property in any one occurrence.

(4) Umbrella / Excess Liability coverage written for the following policy limits: \$2,000,000 per occurrence and \$2,000,000 aggregate limit.

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

§ 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice 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. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

# § 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 The Contractor is hereby informed that the Owner will carry Fire and Extended Coverage Insurance which will include provisions for vandalism but not provisions for theft, mysterious disappearance, or glass breakage.
§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the

insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner

shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of

use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

#### §11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to 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.

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#### 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. 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.
- § 12.2.4.1 Upon failure of the Contractor to make repairs within ten (10) days after notice from the Owner's Representative, the Owner shall have such work done and the cost thereof charged to the Contractor.
- § 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.

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# § 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 laws of the State of Kansas, and the parties agree that any dispute will be resolved in the Tenth Judicial Circuit for Johnson County, Kansas, and each consents to the exclusive *in personam* jurisdiction and exclusive venue of that Court.

## § 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 shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.
- § 13.4.2 If the 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

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

# ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT § 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

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

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

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

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

# § 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors 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 breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and

- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.
- § 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.
- § 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

# § 14.3 Suspension by the Owner for Convenience

- § 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.
- § 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent
  - .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
  - .2 that an equitable adjustment is made or denied under another provision of the Contract.

## § 14.4 Termination by the Owner for Convenience

- § 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.
- § 14.4.2 Upon receipt of 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;
  - .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
- § 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed;, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

# ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

# § 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

#### § 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the 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

- 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
- damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

## § 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the

Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

- § 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.
- § 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.
- § 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.
- § 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties 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.
- § 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.
- § 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.
- § 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.
- § 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

#### ARTICLE 16 ADDITIONAL CONDITIONS

- § 16.1 Each party to this Agreement represents to the other that: it has all requisite power, authority, licenses, permits and franchises, corporate or otherwise to execute and deliver this Agreement and performs its obligations hereunder; its execution, delivery and performance of this Agreement have been duly authorized, executed and delivered for it by the signatory so authorized, and constitutes its legal, valid and binding obligation; the persons executing this Agreement are fully authorized to do so; and, it has not received any notice, nor to the best of its knowledge there is pending or threatened any notice of any violation of any applicable laws, ordinances, regulations, rules, decrees, awards, permits or orders which would materially adversely affect its ability to perform hereunder.
- § 16.2 Nothing in this Agreement shall be construed as reserving to Owner any right to exercise any control over or to direct in any respect the conduct or management of business or operations of Contractor. The entire control or direction of such business and operation shall be in and shall remain in Contractor, subject only to Contractor's performance of its obligations under this Agreement. Neither Contractor nor any person performing any duties engaged in any Work on behalf of Contractor shall be deemed an employee or agent of Owner.

- § 16.3 Prior to commencement of the Work, Contractor shall provide to Owner a sworn affidavit and other sufficient documentation to affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with this Agreement. Contractor shall also provide Owner a sworn affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the Work.
- § 16.4 Contractor will be required to comply with the President's Executive Order No. 11246, Title VI and Section 3 of the 1968 HUD Act as pertaining to Equal Employment Opportunity through Affirmative Action. Contractor must comply with all applicable requirements of federal and state civil rights law and rehabilitation statutes and shall not discriminate based on race, religion, color, sex, national origin, age or disability.
- § 16.5 Contractor shall be required to comply with all applicable Policies and Procedures of Owner's Board of Education, as well as all applicable federal and state laws and regulations, including but not limited to the following:
  - .1 The Copeland Anti-Kickback Act;
  - .2 The Byrd Anti-Lobbying Amendment, as applicable;
  - .3 The Davis Bacon Act;
  - .4 § 103 and 107 of the Contract Work Hours and Safety Standards Act;
- .5 All federal requirements applicable to the Project regarding reporting, patent rights, copyrights and rights in data, and access to Contractor's book documents, papers and records which are pertinent to the Project;
- .6 § 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act;
- .7 All applicable standards, orders or requirements under §306 of the Clean Air Act, §508 of the Clean Water Act (EO 11738) and Environmental Protection Act Regulations; and
- .8 All mandatory standards and policies relating to emergency efficiency contained in the state emergency conversation plan.
- § 16.6 When any period of time is referred to in this Agreement or the Attachments by days, it will be comput¬ed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.
- § 16.7 The duties and obligations imposed by this Agreement and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of this Agreement. The provisions of this Paragraph will be as effective as if repeated specifically in this Agreement in connection with each particular duty, obligation, right, and remedy to which they apply.
- § 16.8 All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with this Agreement, as well as all continuing obligations indicated in this Agreement, will survive final payment, completion, and acceptance of the Work or termination or completion of this Agreement or termination of the services of Contractor.
- § 16.9 The Contract Documents may be executed in one or more counterparts, each of which shall constitute an original and which, when taken together, shall constitute one entire Agreement. It shall be fully executed when each party whose signature is required has signed at least one counterpart even though no one counterpart contains the signatures of all the parties to these Contract Documents.
- **§16.10** These Contract Documents constitute the entire agreement between the parties hereto and there are no other understandings, written or oral, relating to the subject matter hereof, and may not be changed, modified or amended, in whole or in part, except in writing signed by Owner and Contractor.

# SECTION 010100 - SUMMARY OF WORK

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Description of the Work.
- B. Work under other contracts.
- C. Products furnished by the owner.
- C. Contractor use of site (and premises).
- D. Code of Conduct.
- E. Existing conditions.
- F. Work sequence, Schedule for Completion and liquidated damages.
- G. Time extensions for adverse weather.
- H. Owner occupancy.
- I. Time extension for factors other than weather.
- H. Additional owner requested bid breakdown.

#### 1.02 DESCRIPTION OF THE WORK

A. The Contractor shall furnish all labor, materials, facilities, insurance, management, equipment, services, employee training and testing, permits and agreements necessary to perform the work required for the for AV upgrades at Shawnee Mission.

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- B. The General or Prime Contractor shall be represented (full time) at the site, by a competent Superintendent from beginning of the work, until final completion unless otherwise approved by the Owner. The superintendent shall oversee and direct the daily construction activities at the work site including scheduling of workers and delivery of equipment and materials to meet the project schedule. The superintendent shall also inspect work in progress to ensure that work conforms to the plans and specifications. The Superintendent shall be dedicated to these duties and shall physically perform work or "wear tools" only on a limited basis.
- C. Projects Address: 1. Indian Hills Middle School 6400 Mission Road

Prairie Village, KS 66208

2. Northwest High School 12701 W. 67th St. Shawnee, KS 66216

3. West High School 8800 W. 85th St. Overland Park, KS 66212 HTK Project #: 1707.05-004

4. East High School 7500 Mission Rd. Prairie Village, KS 66208

## 1.03 WORK UNDER OTHER CONTRACTS.

A. Owner will remove and retain possession of equipment, furniture and loose items particular to each building. Owner to identify items to contractor prior to start of building and/or demolition activities. Contractor to coordinate schedule so as not to interfere with daily operation of the facility prior to start of building and/or demolition activities.

#### 1.04 PRODUCTS FURNISHED BY THE OWNER.

A. The owner will supply a maximum of 1 set of complete bid documents to the successful bidder. They will include plans, specifications and addendums.

## 1.05 CONTRACTOR USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow owner occupancy and use of the existing building, parking lots, and hard play areas during construction.
- B. Contractor can park in any of the school parking lots after school hours or during Summer Break when no students or staff is on site.

## 1.06 CONTRACTOR AND VENDOR EMPLOYEES CODE OF CONDUCT

Shawnee Mission School District requests that all contractor and vendor employees conduct themselves in an acceptable manner while performing work on school district property. The following items are prohibited on school district property:

- 1. No physical or verbal contact is to be made with students or non-designated staff.
- 2. No smoking or other use of tobacco products in any manner is permitted on district property.
- 3. No drugs and/or alcohol are to be consumed or present on district sites.
- 4. No firearms, or hunting items, are to be present on the site.
- 5. Foul and/or abrasive language is not to be used.
- 6. All workers are to wear clothing on all parts of their body; no shirtless workers. Apparel should be appropriate to a school campus.

Utilize designated areas for vehicle access and parking, material storage, etc.

All workers are to wear a nametag, which identifies the company name and the individual's name.

# 1.07 EXISTING CONDITIONS

A. The contract drawings are based on information taken from original construction drawings and from inspections of the site.

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B. Bidders are advised that "as-built" conditions may vary from those shown on the drawings. Bidders shall not later request, nor expect to receive, additional payment for work related to variations which can be determined by examination of the existing building and site, by the date set for receipt of Bids for this Contract.

# 1.08 WORK SEQUENCE AND SCHEDULING

- A. The Contractor and all Subcontractors, sub-subcontractors and Suppliers shall furnish sufficient forces, supervision, construction plant and equipment, and shall work such hours as may be required to insure the prosecution of the work in accordance with the Progress Schedule stated herein. If in the opinion of the Owner, the Contractor falls behind the Progress Schedule, the Contractor shall take such steps as may be necessary to improve the progress and the Owner may require them to increase the number of shifts, and/or overtime operations, days of work including holidays, Saturdays and Sundays, all without additional costs to the Owner.
- B. Schedule requirements are outlined as follows.

April 26, 2021: Award of bid and approval of contract for construction by Board of Education.

Building/Area	Start Date	Substantial Completion	Final Completion *
All Schools	June 1, 2021	July 30, 2021	1 week later

<sup>\*</sup> Final completion shall be achieved as noted after the established date of substantial Completion, to include the issuance of the architect-engineer punch list to the general Contractor for the affected building area.

C. Liquidated damages for substantial completion will be assessed if the general contractor has not achieved adequate progress to permit school district personnel occupancy and use of all noted areas of the building and/or site in accordance with the dates for substantial completion noted above. Damages will accrue and will be based on the unavailability of the building space(s) and/or site for their intended purposes as determined by the school district. Liquidated damages noted are tiered and are based on the intended use of the building and/or site in accordance with the school schedules proposed or established.

Building/Area	Substantial Completion Date	Liquidated Damages Assessment
All Schools	July 30, 2021	\$500/day

Final completion of construction related activities including the satisfactory completion of all punch list corrections shall be completed in accordance with the timeframe noted

above for each building and/or area. Liquidated damages associated with final completion shall be assessed based on any actual costs incurred by the school district due to the restricted use of the facility; and for costs that may be associated with inconvenience, lack of efficiency, and/or district personnel costs associated with providing exclusive access for the general contractor to complete punch list corrections after normal school day operation and/or on weekends or holidays. Similarly, any actual costs incurred by the school district for extended or additional architect/engineer services made necessary as a result of the general contractor's inability to meet final completion will be assessed as liquidated damages to the general contractor.

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#### 1.10 OWNER OCCUPANCY

- A. The existing buildings, parking lots and hard play areas will be used and occupied by the Shawnee Mission School District during portions of the Contract Time. Occupants will include, but not be limited to: students, faculty, parents, and other groups so authorized to use the building and/or site by the school district.
- B. The school is unoccupied for summer recess and will be available for contractor access.
- C. The work shall be confined to limited areas of the site. The contractor shall work with the Project Team to develop a schedule of areas to receive work. The schedule will identify specific areas of the building and site to receive work at specific times. This schedule shall be submitted by the Contractor to the Architect for approval before the work begins.
- D. Unless otherwise indicated, the owner will move loose furnishings out of the existing building with his own work forces prior to scheduled demolition. This will include furniture, equipment, wall hangings, books, maps, clocks, and loose educational materials prohibiting work.

# 1.11 TIME EXTENSION FOR FACTORS OTHER THAN WEATHER

- A. If the contractor incurs a delay due to factors out of his control, the contractor shall submit a claim within twenty-one (21) days after the occurrence of the delay to the architect and project team. The claim shall include a description of the cause of the delay and resultant request for additional time.
- B. If a proposal request for additional work causes the contractor additional time to perform the original contract requirements the contractor may submit a claim for additional time to the Architect and Owner. The Contractor shall include in his proposal the request for time extension (if any), and shall include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the contract in its entirety.
- C. The determination that delays have occurred beyond the Contractor's control does <u>not</u> automatically mean an extension of time will be granted. The Contractor must substantiate the delay by indicating suspended work activities on the critical portion of the project schedule.

**END OF SECTION** 

#### SECTION 010200 - CONTRACT CONSIDERATIONS

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- Cash Allowances.
- B. Schedule of values.
- C. Bid Cost Breakdown.
- D. Application for Progress Payment.
- E. Application for Final Payment
- F. Change Orders and/or Clarifications.

#### 1.02 RELATED SECTIONS

A. N.A.

# 1.03 CASH ALLOWANCES

Allowance in total of \$2,000 to be used for unforeseen conditions during construction.

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#### 1.04 SCHEDULE OF VALUES

- A. The Contractor will submit to the Architect, a Schedule of Values that includes all major categories of work and per building if applicable. The Schedule of Values will need to be broken into four sections one for each building. The Schedule of Values will annotate a value for the construction schedules and progress meeting notes required by the contract documents. The dollar amounts are to include all labor, material, overhead and profit applicable to each item in the breakdown. As a sub-breakdown, each item is to be separated into an estimated labor and materials line item. The Contractor must submit an estimated total value for the projected cost of supplies, materials, and equipment required. Submit typed schedule on AIA Form G703 Application and Certificate for Payment Continuation Sheet. Contractor's standard from of electronic media printout will be considered as an alternate form of submission.
- B. Submit Schedule of Values in triplicate within fourteen (14) calendar days after the contract for construction is executed and prior to any submission of an Application for Payment. Schedule shall list the installed value of the component parts of the work, broken down in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. Format: At a minimum, use the Table of Contents in this Project Manual to identify each line item with number and title of the major specification section.
- D. Add to the Schedule of Values approved Change Orders, with each Application for CONTRACT CONSIDERATIONS 010200 1

Payment. List Change Orders in numerical sequence with each Application for Payment.

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- E. Correlate line items in the Schedule of Values with other required additional schedules and forms including:
  - a. Contractor's construction schedule
  - b. Contract payment request form
  - c. List of subcontractors.
  - d. List of products.
  - e. List of principle suppliers and fabrications.
  - f. Schedule of submittals.
- F. Prior to making application for the first progress payment, the Contractor must submit the Schedule of Values. No progress payments will be made until the schedule of values has been received, reviewed, and approved by the Architect and Shawnee Mission School District. The costs assigned to the breakdown are to total the contract sum. The approved Schedule of Values is to be used by the Contractor on their Application for Payment.
- 1.05 BID COST BREAKDOWN

(See Bid Form for any applicable requirements)

- 1.06 APPLICATION FOR PROGRESS PAYMENTS
  - A. At a time consistent with the requirements of this section, the General Conditions, and the Owner-Contractor Agreement, and for each calendar month during the progress of the work, submit three (3) copies of a properly notarized itemized Application for Payment prepared in a manner consistent with the Schedule of Values. The Application for Payment will need to be broken into four sections one for each building and totaled to represent the original bid amount.
  - B. The amount shown on the Application for Payment shall be established by the value of work completed through the last day of the application period based upon the Contractor's estimate of labor and materials incorporated in the work and of materials suitably stored in accordance with the contract through the last day of the previous application, less the aggregate of previous payments, and less the retainage as specified in this section.
  - C. The form of application for payment shall be the 2017 edition of AIA Document G702. "Application and Certificate for Payment", supported by AIA Document G703. "Continuation Sheet".
  - D. Provide the following itemized data on Continuation Sheet:
    - a. Format, schedules, line items, and values shall be from the Schedule of Values accepted by Architect.
    - b. Include names, trades and amount for subcontractors.
    - 1. Application Form:
      - a. Fill in required information, including that for change orders executed prior to the date of submittal application.
      - b. Fill in summary of dollar values to agree with the respective totals indicated on the continuation sheet.
      - c. Execute certificate with the signature of a responsible officer of the

contractor's firm.

#### Continuation sheets:

a. Fill in total list of all scheduled component items of work, with each number and the scheduled dollar value of each item.

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- b. Fill in the dollar value in each column for each scheduled line item when work has been performed or products stored. Round off values to nearest dollar, or as specified in the Schedule of Values.
- c. List each change order executed prior to the date of submission, at the end of the continuation sheets. List by change order number, description, and breakdown of costs as for an original component item of work.

# E. Substantiating Data for Progress Payments:

- 1. Substantiating data is required to verify a payment request. Contractors are to include a cover letter identifying:
  - a. Proiect.
  - b. Application number and date.
  - c. Detailed list of enclosures.
  - d. For stored products: Item number and identification as shown on application, and description of specific material. Include Bill of Sale, Non-Negotiable Bailment Receipt (see form at the end of this section) and applicable insurance certificate.
- 2. Submit one copy of the data cover letter for each of the applications.
- F. Applications for Payment shall be accompanied by cost breakdowns from the contractor, subcontractors and sub-sub-contractors.
- G. The three notarized copies of the application for payment will be transferred to the architect to be certified for payment. Provide a copy (non-notarized) to the owner's representative.

### 1.07 APPLICATION FOR FINAL PAYMENT

- A. Submit final Application for Payment following the procedures specified above for progress payments.
- B. Before submitting final Application for Payment, forward concurrently to the Architect, the written warranties and guarantees, Record and Information Manuals and other documents required by the contract documents. Place properly in approved storage at the site the extra stock and spare parts specified. Contractor will obtain the signature of the Architect verifying receipt of the extra stock and spare parts.
- C. Properly executed "Final Lien Waiver and Release" and Contractor's "Affidavit" (see applicable forms at the end of this section) shall be submitted to the Architect in duplicate prior to final payment.
- D. Application for Final Payment shall be accompanied by a properly executed "Consent of Surety Company to Final Payment: AIA Document G707, 2017 edition.

### A. Request for Information (RFI)

1. If during the construction of the project, clarification of the documents is required, it shall be brought to the attention of the Architect. The Architect will either provide clarification or the Contractor will issue a Request for Information (RFI) to the Architect. Each RFI will be dated and sequentially numbered. The Architect shall provide his written response to the RFI and return the RFI response to the Contractor for distribution to all effected contractors.

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 Responses to RFI's are not authorization to proceed with work requiring additional compensation. If additional compensation is required, the Contractor shall immediately advise the Architect, and Owner.

## B. <u>Proposal Request (PR)</u>

Should the owner contemplate making a change in the work, the architect will issue a Proposal Request (PR) to the Contractor. If the described change impacts cost and/or time, the Contractor will prepare a proposal and submit it to the Architect. The Contractor's proposed cost shall be broken down completely giving quantity and unit costs by each trade of each item, labor cost with hourly rates, allowable overhead and profit (both adds and deducts). The Owner and Architect will review the pricing to determine if a change order will be issued. Contractors are not to proceed with additional work until written authorization has been received. No additional amount will be paid for submittal in this form or for resubmittal should the breakdown be considered inadequate by the Architect and Owner.

## C. Change Orders (CO)

- If the Owner determines that a Proposal Request will be accepted, the Architect will prepare a change order (CO) which will be dated and numbered sequentially. The change order will describe the change or changes, will refer to the Proposal Request and Proposal number and becomes valid when signed by the Owner, the Architect and the Contractor.
- Where unit prices are not required by the bid documents and value of changes or extra work is determined by estimate and acceptance in a lump sum, by cost and percentages, or by cost and a fixed fee, the percentages for overhead and profit, or commission to be allowed for net increases shall in no case exceed the figures identified on the bid form.
- 3. Estimates for material shall be based on reasonable current market value at which materials are available to the Contractor and Subcontractor. Upon request, submit satisfactory evidence of such costs. Labor unit costs shall include associated insurance.
- 4. When authorized by the Owner, time and material accounting of a change in work may be used. The Contractor shall maintain an accurate account of labor and material involved in each change. Such time and material records are subject to verification. Notify Architect and Owner when work on each change is to start and when it has been completed. To receive full recognition, labor assigned to Contract changes must, insofar as possible, work continuously on the change, rather that interchanging between contract work and the change.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

### FINAL LIEN WAIVER AND RELEASE

Reference that	certain Agreement between		, as Contractor, and
, as Owner, dat	ed	on the project known as	, as Contractor, and
located at		for w	ork to be performed by said
Contractor.			
Reference also	that certain invoice of Contracto	or to said Owner in the Am	ount of \$
	and materials installed in or furni		
		onou for oala project by a	na unoagn
The manifest burst	0 4 4 4 0		in a service word was a the final
	Contractor of Owner's remittance		
	payment of said remittance, shal and all other claims or demands		
	tion with the Project or Contract		
	agrees to and does hereby waive		
` '	nt sureties and guarantors from;		
	ess said property, project, Owne	` ,	•
	3,1, 3,1, 3	,	
(1)	any and all liens, statutory or of	therwise, and	
(2)	any or all obligations under any	hond or quaranty for nay	ment furnished by or to said
(2)	Owner, whether pursuant to ag		
	zz.,e. paredant to ag		
(3)	any and all other claims whatso	bever, statutory or otherwi	se,

for any and all work, labor and materials furnished by or through said Contractor, its subcontractors and material suppliers for the entirety of said project.

The remittance of the Owner, identified as payment of said above invoice and endorsed by Contractor and marked "paid" or otherwise canceled by the bank against which said remittance was drawn shall constitute conclusive proof that said invoice was paid and the payment thereof was received by the Contractor, and thereupon, this final lien waiver shall become effective automatically and without requirement of any further act, acknowledgment or receipt of the part of said Contractor.

Contractor does further warrant that Contractor has not and will not assign its claims for payment nor its right to perfect a lien against said property and project, and the undersigned representative of the contractor has the right to execute this waiver and release thereof.

The undersigned representative of Contractor does hereby certify under oath that he is fully authorized and empowered to execute this instrument for and in behalf of said Contractor and to bind them hereto and does in fact so execute this final lien release.

Dated this	day of	, 20	
		Contractor:	
		Ву:	
		Title:	
	, this	ed Notary Public within and for the State of, 20,	
	Notary Publi	ic within and for said County and State	

# NON-NEGOTIABLE BAILMENT RECEIPT

		Receipt Number
BAILOR:	Owner	
BAILEE:	Contractor/Supplier	<u></u>
PROJECT:		
LOCATION OF STORAGE:		
Bailee, as Contractor/Supplier, Project location. Said goods a conjunction with the performan the Architect and no other. Th	ribed below are held and stored pursuant to the Co and Bailer as Owner for Work to be performed at and materials are to be transferred or delivered to to ce of Bailee's contract referenced above or upon to be Bailee acknowledges that it has no ownership ritipon, said goods and materials.	the above referenced the project site in he direction of Bailor or
QUANTITY	DESCRIPTION OF ITEM	
	Received and Acknowle Contractor/Supplier	edged
DATED:	BY:Authorized Signature	
	Authorized Signature	<b>;</b>

The undersigned representative of Contractor does hereby certify under oath that he is fully authorized and empowered to execute this instrument for and in behalf of said Contractor and to bind them hereto and does in face so execute this final lien release.

Dated this _	day of	, 20
Contractor:		
		_
Ву:		
Title:		_
		_
Subscribed	and affirmed to before me, the undersigned	Notary Public within and for the State of
,	_ and the County of,	this, day of, 2
in the City of	f	
Notary Publi	ic within and for said County and State	_

#### SECTION 010450 - CUTTING AND PATCHING

### PART 1 GENERAL

## 1.01 SECTION INCLUDES:

- A. Summary
- B. Submittals
- C. Quality Assurance
- D. Products
- E. Cleaning
- F. Renovation Supplemental Project Procedures

#### 1.02 SUMMARY

- A. This section specifies administrative and procedural requirements for cutting and patching.
- B. Refer to other sections for specific requirements and limitations applicable to cutting and patching individual parts of the work.

## 1.03 SUBMITTALS

- A. Cutting and Patching Description: Where approval of procedures for cutting and patching is required before proceeding, submit a description of the procedures well in advance of the time cutting and patching will be performed and request approval to proceed. Include the following information, as applicable, in the proposal:
  - 1. Describe the extent of cutting and patching required and how it is to be performed; indicate why it cannot be avoided.
  - 2. Describe anticipated results in terms of changes to existing construction; include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
  - 3. List products to be used and firms or entities that will perform work.
  - 4. Indicate dates when cutting and patching is to be performed.
  - 5. List utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
  - 6. Where cutting and patching involves addition of reinforcement to structural elements, submit details and engineering calculations signed and sealed by a qualified professional engineer licensed in the State of Kansas to show how reinforcement is integrated with the original structure.
  - 7. Approval by the Architect to proceed with cutting and patching does not waive

the Architect's right to later require complete removal and replacement of a part of the work found to be unsatisfactory.

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#### 1.04 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio.
- 1. Obtain approval of the cutting and patching description before cutting and patching the following structural elements:
  - a. Foundation construction.
  - b. Bearing and retaining walls.
  - c. Structural concrete.
  - d. Structural steel.
  - e. Lintels.
  - f. Structural decking.
  - g. Miscellaneous structural metals.
  - h. Equipment supports.
  - i. Piping, ductwork, vessels and equipment.
- B. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life or safety.
- 1. Obtain approval of the cutting and patching description before cutting and patching the following operating elements or safety related systems:
  - a. Primary operational systems and equipment.
  - b. Air or smoke barriers.
  - c. Water, moisture, or vapor barriers.
  - d. Membranes and flashings.
  - e. Fire protection systems.
  - f. Noise and vibration control elements and systems.
  - g. Control systems.
  - h. Communication systems.
  - i. Electrical wiring systems.
- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, in the Architect's opinion, reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace work that has been cut and patched in a visually unsatisfactory manner.

### PART 2 PRODUCTS

### 2.01 MATERIALS

A. Use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials.

#### PART 3 EXECUTION

### 3.01 INSPECTION

A. Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.

### 3.02 PREPARATION

- A. Temporary Support: Provide temporary support of work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the project that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Take all precautions necessary to avid cutting existing pipe, conduit or ductwork serving the building, but scheduled to be removed or relocated until provisions have been made to bypass them.

## 3.03 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
- Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible, review proposed procedures with the original installer; comply with the original installer's recommendations.
  - In general, where cutting is required, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
  - 3. Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.
  - 4. Comply with requirements of applicable sections of Division-2.
  - 5. By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other

foreign matter after by-passing and cutting.

- C. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
  - 1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.

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 Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

#### 3.04 CLEANING

A. Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

## 3.04 RENOVATON SUPPLEMENTAL PROJECT PROCEDURES

- A. Materials: As specified in Product Sections; match existing products and work for patching and extending work.
- B. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- C. Remove, cut and patch work in a manner to minimize damage and to provide a means of restoring products and finishes to original condition.
- D. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.
- E. Where new work abuts or aligns with existing, perform a smooth and even transition. Patched work to match existing adjacent work in texture and appearance.
- F. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
- G. Where a change of plane of ¼-inch or more occurs, submit recommendation for providing a smooth transition for Architect review.
- H. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- I. Finish surfaces as specified in individual product sections.

### **END OF SECTION**

#### SECTION 010950 - REFERENCE STANDARDS AND DEFINITIONS

## PART 1 - GENERAL

#### 1.01 SECTION INCLUDES:

- A. Related documents
- B. Definition
- C. Specification Format and Content Explanation
- D. Industry Standards
- E. Governing Regulations/Authorities
- F. Submittals

### 1.02 RELATED DOCUMENTS

A. Drawings and general provisions of contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.

#### 1.03 DEFINITIONS

- A. Indicated: The term "indicated" refers to graphic representations, notes, or schedules on the drawings, other paragraphs or schedules in the specifications, and similar requirements in the contract documents. Where terms such as "shown", "noted", "scheduled", and "specified" are used, it is to help the reader locate the reference; no limitation on locating is intended.
- B. Directed: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by the architect/consultant", "requested by the architect/consultant", and similar phrases.
- C. Approve: The term "approved", where used in conjunction with the architect/consultant's action on the Contractor's submittals, applications, and requests, is limited to the architect/consultant's duties and responsibilities as stated in General, Supplementary, and Special Provisions.
- D. Regulation: The term "Regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the asbestos removal, hazardous waste, and construction industries that control performance of the work.
- E. Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations".
- F. Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working

to dimension, finishing, curing, protecting, cleaning, and similar operations".

G. Provide: The term "provide" means "to furnish and install, complete and ready for the intended use".

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- H. Installer: An "Installer" is the Contractor or an entity engaged by the Contractor, either as an employee, Subcontractor, or sub-subcontractor, for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
  - 1. The term "experienced" when used with the term "Installer" means having a minimum of five previous projects similar in size and scope to this project, being familiar with the precautions required, and having complied with requirements of the authority having jurisdiction.
  - 2. Trades: Use of titles such as "carpentry" is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter". It also does not imply that requirements specified apply exclusively to trades persons of the corresponding generic name.
- I. Assignment of Specialists: Certain sections of the specifications require that specific construction activities shall be performed by specialists who are recognized experts in the operations to be performed. The specialists must be engaged for those activities, and assignments are requirements over which the Contractor has no choice or option. Nevertheless, the ultimate responsibility offer fulfilling contract requirements remains with the Contractor.
- 1. This requirement shall not be interpreted to conflict with enforcement of building codes and similar regulations governing the work. It is also not intended to interfere with local trade union jurisdictional settlements and similar conventions.
- J. Project Site is the space available to the Contractor for performance of activities, either exclusively or in conjunction with others performing other work as part of the project. The extent of the Project Site is shown on the drawings and may or may not be identical with the description of the actual Project Site. All dimensions and locations should be field verified and noted by the Contractor.
- K. Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

#### 1.04 SPECIFICATION FORMAT AND CONTENT EXPLANATION

- A. Specification Format: The specifications are organized into divisions and sections based somewhat on the Construction Inspection Institute's 16-Division format and MASTER FORMAT numbering system.
- B. Specification Content: This specification uses certain conventions in the use of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
  - 1. Abbreviated Language: Language used in specifications and other contract

documents is the abbreviated type. Implied words and meanings will be appropriately interpreted. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and the full context of the contract documents so indicates.

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- 2. Imperative and streamlined language is used generally in the specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the text, for clarity, subjective language is used to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.
  - a. The words "shall be" shall be included by inference wherever a colon (:) is used within a sentence or phrase.

### 1.05 INDUSTRY STANDARDS

- A. Applicability of Standards: Except where the contract documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the contract documents. Such standards are made a part of the contract documents by reference.
- B. Publication Dates: Where the date of issue of a referenced standard is not specified, comply with the standard in effect as of date of contract documents.
- C. Conflicting Requirements: Where compliance with two or more standards is specified, and the standards establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the architect and/or owner for a decision before proceeding.
- Minimum Quantity or Quality Levels: The quantity level shown or specified shall be the
  minimum provided or performed. In complying with these requirements, indicated
  numeric values are minimum or maximum, as appropriate for the context of the
  requirement. Refer uncertainties to the architect and/or owner for a decision before
  proceeding.
- D. Copies of Standards: Each entity engaged in activities on the project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the contract documents.
- 1. Where copies of standards are needed for performance of a required activity, the Contractor shall obtain copies directly from the publication source.
- E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the specifications or other contract documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations", published by Gale Research Co., available in most libraries.

### 1.06 GOVERNING REGULATIONS/AUTHORITIES

A. As applicable, the architect and/or engineer has contacted authorities having jurisdiction to obtain information necessary for preparation of contract documents. Contact authorities having jurisdiction directly for information and decisions having a bearing on

the work.

## 1.07 SUBMITTALS

A. Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence, and records established in conjunction with compliance with standards and regulations bearing upon performance of the work.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

**END OF SECTION** 

#### SECTION 012000 - PROJECT MEETINGS

### PART 1 - GENERAL

### 1.01 SECTION INCLUDES:

- A. Related Documents
- B. Summary
- C. Pre-Construction Conference
- D. Pre-Installation Conference
- E. Progress Meetings

## 1.02 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division-1 specification sections, apply to this section.

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#### 1.03 SUMMARY

- A. This section specifies administrative and procedural requirements for project meetings including, but not limited to:
  - 1. Preconstruction conference.
  - 2. Pre-installation conferences.
  - 3. Coordination meetings.
  - 4. Progress meetings.
- B. Construction schedules are specified in another Division-1 section.

### 1.04 PRECONSTRUCTION CONFERENCE

- A. The Contractor shall schedule a preconstruction conference and organizational meeting at the project site or other convenient location within fourteen (14) days of contract execution, and at least seven (7) days prior to commencement of any construction activities. The Contractor shall conduct the meeting to review responsibilities and personnel assignments.
- B. Attendees: Shawnee Mission School District, the Architects/Consultants, the Contractor and its superintendent, major subcontractors, manufacturers, suppliers and other concerned parties shall each be represented at the conference by persons familiar with and authorized to conclude matters relating to the work.
- C. Agenda: Discuss items of significance that could affect progress, including such topics as:
  - 1. Tentative construction schedule.

- 2. Critical work sequencing.
- 3. Designation of responsible personnel.
- 4. Procedures for processing field decisions and change orders.
- 5. Procedures for processing applications for payment.
- 6. Distribution of contract documents.
- 7. Submittal of Shop Drawings, Product Data and Samples.
- 8. Preparation of record documents.
- 9. Use of the premises.
- 10. Office, work and storage areas.
- 11. Equipment deliveries and priorities.
- 12. Safety procedures and compliance with Lock Out/Tag Out procedures.

- 13. Lead safe work practices and lead hazard prevention procedures.
- 14. First aid.
- 15. Security.
- 16. Housekeeping.
- 17. Working hours.
- 18. Testing agencies and procedures.
- 19. Temporary utilities; water, electric, phone.
- 20. Temporary lavatory facilities.
- 21. Quality control.
- D. The Contractor shall record meeting minutes and distribute copies to everyone in attendance and to others affected by decisions of actions resulting from the meeting.

#### 1.05 PREINSTALLATION CONFERENCES

- A. The General Contractor shall convene a pre-installation conference at the site before each construction activity that requires coordination with other construction. The Installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the architect and owner of scheduled meeting dates.
- B. Review the progress of the construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for:
  - 1. Contract documents.
  - 2. Options.
  - 3. Related Change Orders.
  - 4. Purchases.
  - Deliveries.
  - 6. Shop drawings, product data and quality control samples.
  - 7. Possible conflicts.
  - 8. Compatibility problems.
  - 9. Time schedules.
  - 10. Weather limitations.
  - 11. Manufacturer's recommendations.
  - 12. Compatibility of materials.
  - 13. Acceptability of subtrates.
  - 14. Temporary facilities.
  - 15. Space and access limitations.

- 16. Governing regulations.
- 17. Safety and application of associated Lock Out/Tag Out procedures.

- 18. Inspection and testing requirements.
- 19. Required performance results.
- 20. Recording requirements.
- 21. Protection.
- 22. Punchlist procedures and Architect/Engineer responsibilities limitations.
- C. Notify architect and owner four days in advance of meeting date when their attendance is required by individual section.
- D. The Contractor shall prepare agenda, preside at the conference and record significant discussions and agreements and disagreements of each conference, along with the approved schedule. The Contractor shall distribute the record of the meeting to everyone concerned, promptly, including the owner and architect.
- E. Do not proceed if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of work and reconvene the conference at the earliest feasible date.

## 1.06 PROGRESS MEETINGS

- A. Conduct progress meetings at the Project Site at a minimum of bi-monthly intervals or as directed by the Architect. Notify the Owner and Architect of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.
- B. Attendees: In addition to representatives of the Owner and Architect, each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meeting by persons familiar with the Project and authorized to conclude matters relating to progress..
- C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the project.
  - Contractor's Schedule: Review progress since the last meeting. Determine
    where each activity is in relation to the Contractor's schedule, whether on time or
    ahead or behind schedule. Determine how operations behind schedule will be
    expedited; secure commitments from parties involved to do so. Discuss whether
    schedule revisions are required to ensure that current and subsequent activities
    will be completed with the contract time.
  - 2. Produce and review a two-week "look ahead" schedule outlining planned construction activities for the next two weeks (or the period of time until the next progress meeting).
  - 3. Review the present and future needs of each entity present, including such items as:
    - a. Interface requirements.
    - b. Time.
    - c. Sequences.
    - d. Deliveries.

- e. Off site fabrication status.
- f. Access.
- g. Site utilization.
- h. Temporary facilities and services.
- i. Hours of work.
- j. Hazards and risks.
- k. Housekeeping.
- I. Quality and work standards.
- m. Change orders.
- n. Documentation of information for payment requests.
- o. Outstanding items; submittals, proposal requests, RFIs.
- p. Quality assurance.
- q. Safety and application of necessary Lock Out/Tag Out procedures.

- r. Performance of lead safe work practices.
- D. Reporting: No later than three days after each progress meeting date, the Contractor is to distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and reports.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

Not used.

**END OF SECTION** 

#### SECTION 01210A - CASH ALLOWANCES

## PART 1 GENERAL

### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

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#### 1.02 SUMMARY

- A. This Section includes administrative and procedural requirements governing the use of cash allowances.
  - 1. A cash amount is specified in the Contract Document as a cash allowance. This allowance has been established to address additive cost changes in the Work to address unforeseen conditions associated with construction. The use of the cash allowance is solely at the discretion of the Owner, and cannot be authorized by the Architect, Engineer, or other consultant.
- B. Related Sections include the following:
  - 1. Division 1 Section 010200 "Contract Considerations" for procedures for submitting and handling Change Orders.
  - 2. Division 1 Section "Unit Prices" for procedures for using unit prices.

### 1.03 USE OF ALLOWANCES

- A. At the earliest practical date during construction, advise Architect and Owner of unforeseen conditions that affect the Work.
- B. At Architect's request, obtain cost proposals for the corrections of the noted unforeseen conditions.
- C. Based on cost proposals received, the Owner will make a decision to utilize available allowance amounts to correct the applicable unforeseen condition. The correction of individual unforeseen conditions may be funded utilizing cash allowances or a formal change order at the Owner's discretion.

#### 1.04 SUBMITTALS

A. Submit proposals for additive costs for unforeseen conditions in the same form specified for proposal requests.

#### 1.05 RESPONSIBILITIES

CASH ALLOWANCES 012100 - 1

## A. Architect Responsibilities:

1. Consult with Owner in consideration and selection of additive cost items for consideration for application using cash allowances.

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2. Prepare Proposal Requests and assess proposals for application of cash allowances for Owner approval.

# B. Contractor Responsibilities:

- 1. Identify unforeseen conditions as they may occur and advise the Architect and Owner.
- 2. Obtain proposals and offer recommendations.
- 3. On notification of approval of cash allowance, execute agreement with designated supplier and/or sub-contractor as applicable.
- 4. Arrange for and process applicable shop drawings, product data, and samples. Arrange for delivery.
- 5. Coordinate and install Work of approved Cash Allowances.
- 6. The Contractor shall include in his Bid all fees for all Cash Allowances.
- C. Funds will be drawn from Cash Allowances only by written authorization of the Owner.
- E. Cash Allowances:
  - 1. Unforeseen Conditions

#### 1.06 SCHEDULE OF VALUES

A. The Contractor will submit to the Architect a Schedule of Values that includes all major categories of work, including applicable Cash Allowances.

#### 1.07 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

#### 1.08 ALLOWNACE COSTS

- A. Allowance shall include cost to Contractor of products and materials, freight and delivery to Project Site, labor, and installation.
- B. Contractor's costs for overhead and profit, and similar costs of Bonds and Insurance shall be included as part of the Contract Sum and not part of the allowance.
- C. Any unused portion of the Allowance shall be credited to the Owner at the completion of the Work via a Deductive Change Order, along with the associated overhead and profit. Refer to Contract Documents for procedures and mark-ups for Deductive Change Orders.

PART 2 – PRODUCTS (Not Used)

CASH ALLOWANCES 012100 - 2

# PART 3 -- EXECUTION

### 3.01 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

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## 3.02 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

# 3.03 SCHEDULE OF ALLOWANCES

- A. Unforeseen Conditions
  - 1. For use at any school as part of the project: \$2,000 per bid package.

END OF SECTION 012100

CASH ALLOWANCES 012100 - 3

#### SECTION 013000 - SUBMITTALS

## PART 1 - GENERAL

## 1.01 SECTION INCLUDES:

- A. Related Documents.
- B. Summary.
- C. Submittal Procedures.
- D. Contractor's Construction Schedules.
- E. Submittal Schedule.
- F. Daily Construction Reports.
- G. Preexisting Conditions Video Survey.
- H. Shop Drawings.
- I. Product Data.
- J. Samples.
- K. Communications Facilitating Contract Administration.
- L. Architect's Action.
- M. Contractor's Action on Returned Submittals.

# 1.02 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this section.

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#### 1.03 SUMMARY

- A. This section specifies administrative and procedural requirements for submittals required for performance of the work, including:
  - 1. Submittal procedures.
  - 2. Contractor's construction schedule.
  - 3. Submittal schedule.
  - 4. Daily construction reports.
  - 5. Construction photographs.
  - 6. Shop drawings.

- 7. Product data.
- 8. Samples.
- 9. Informational submittals.
- 10. Communications.
- B. Administrative Submittals: Refer to other Division-1 sections and other contract documents for requirements for administrative submittals. Such submittals include, but are not limited to:

- 1. Permits.
- 2. Applications for payment.
- 3. Performance, payment bonds, and statutory bond.
- 4. Insurance certificates.
- List of subcontractors.
- C. The "Schedule of Values" submittal is included in Division-1 Section "Applications for Payment."
- D. Inspection and test reports are included in Division-1 Section "Quality Control Services."
- E. The "Product List" submittal is included in Division-1 Section "Materials and Equipment."

#### 1.04 SUBMITTAL PROCEDURES

- A. General: All documents transmitted for purposes of administration of the contract are to be in electronic (PDF) format and transmitted via an Internet-based submittal service that receives, logs and stores documents, and notifies addressees via email.
  - Beyond submittals for review, information, and closeout, this procedure applies to requests for in- formation (RFIs), progress documentation, contract modification documents (e.g. supplementary instructions, change proposals, change orders), applications for payment, field reports and meeting minutes, and any other document any participant wishes to make part of the project record. The in- tent shall be that construction phase documentation be paperless to the greatest extent possible.
  - 2. Developer/Contractor and Architect are required to use this service.
  - 3. It is Developer/Contractor's responsibility to submit documents in PDF format.
  - 4. Subcontractors, suppliers, and Architect's consultants will be permitted to use the service at no extra charge.
  - 5. Users of the service need an email address, Internet access, and PDF review software that includes ability to mark up and apply electronic stamps (such as Adobe Acrobat, www.adobe.com, or Bluebeam PDF Revu, www.bluebeam.com), unless such software capability is provided by the service provider.
  - 6. Paper document transmittals will not be reviewed; emailed PDF documents will not be reviewed.
  - 7. All other specified submittal and document transmission procedures apply, except that electronic document requirements to not apply to actual physical samples or color selection charts. Transmittals for these items must still be posted to the service so that team members may take action on them, however, and to act as a record of the submittal made, selections determined and action taken.

- B. Cost: The cost of the service will be the responsibility of the awarded contractor (please contact service provider for cost information).
- C. Submittal Service: The selected service is:
  - eCommunication by Drexel Technologies, Damien Illum, (913) 371-4430, www.drexeltech.com.

- D. Training: One, one-hour, web-based training session will be arranged for all participants, with representatives of Architect and Developer/Contractor participating; further training is the responsibility of the user of the service.
- E. Project Closeout: Contractor will determine when to terminate the service for the project and is responsible for obtaining archive copies of files for Owner.
- F. Electronic copies of CAD Drawings of the Contract Drawings will be provided as determined appropriate by Architect for Contractor's use in preparing submittals. The Architect may be contacted for providing electronic copies to the successful bidder. Release of liability form will be required prior to release of any files.
- G. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related activities to avoid delay and to allow sufficient review time.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related elements of the work so processing will not be delayed by the need to review submittals concurrently for coordination.
    - a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received. Such action shall not be grounds for an extension of time or delay by the Contractor.
  - 3. The Architect may request submittals in addition to those indicated in the technical sections when deemed necessary to adequately describe the work covered in the respective section.
  - 4. Units of weights and measurements used on all submittals shall be the same as used in the contract documents.
  - 5. Processing: Allow sufficient review time so that the work will not be delayed as a result of the time required to process submittals, including time for resubmittals.

The Architect shall be responsible for reviewing and certifying that submittals are in compliance with the contract requirements. The approving authority on submittals is the Architect unless otherwise specified for the specific submittal.

Allow at least seven (7) working days in Architect's office for initial review.
 Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Architect will promptly advise the

Contractor when a submittal being processed must be delayed for coordination with work by others.

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- b. If an intermediate submittal is necessary, process in the same manner as the initial submittal.
- c. Allow at least four (4) working days for reprocessing each submittal.
- d. No extension of contract time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the work to permit processing.
- H. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
  - 1. Provide a space approximately 4" x 5" on the label or beside the title block on shop drawings, product data and samples to record the Contractor's review and approval markings and the action taken.
  - 2. Include the following information on the label for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name and address of Architect.
    - d. Name and address of Contractor.
    - e. Name and address of subcontractor.
    - f. Name and address of supplier.
    - g. Name of manufacturer.
    - h. Number and title of appropriate specification section.
    - i. Drawing number and detail references, as appropriate.
- I. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Architect including the information below. Submittals received by Architect from sources other than the Contractor will be returned without action.
  - 1. Record relevant information and requests for data on the transmittal. On the form, or separate sheet, record deviations from contract document requirements, including minor variations and limitations. Include Contractor's signed certification that information complies with contract document requirements.
  - 2. Submit to Architect at business address.

## 1.06 SUBMITTAL SCHEDULE

- A. After development and acceptance of the Contractor's schedule, prepare a complete schedule of submittals. Submit the schedule within ten (10) days of the date required for establishment of the Contractor's construction schedule.
  - 1. Coordinate submittal schedule with the list of subcontracts, schedule of values and the list of products as wells as the Contractor's Construction Schedule.
  - 2. Prepare the schedule in chronological order; include submittals required during the construction. Provide the following information.
    - a. Scheduled date for the first submittal.

- b. Related section number.
- c. Submittal category.
- d. Name of subcontractor.
- e. Description of the part of the work covered.
- f. Scheduled date for resubmittal.
- B. Distribution: Following response to initial submittal, print and distribute copies to the Architect, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the project meeting room and field office.
  - 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in project activities.

C. Schedule Updating: Revise the submittal schedule after each meeting or activity, where revisions have been recognized or made relating to submittals. Issue the updated schedule concurrently with report of each such meeting.

#### 1.09 SHOP DRAWINGS

- A. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the contract documents. Do not reproduce contract documents or copy standard information as the basis of shop drawings. Standard information prepared without specific reference to the project is not considered shop drawings. Shop drawings' quality is subject to approval.
- B. Shop drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
  - 1. Dimensions.
  - 2. Relationship to building grids or coordinates.
  - 3. Interface with adjacent construction.
  - 4. Identification of products and materials included.
  - 5. Compliance with specified standards.
  - 6. Notation of dimensions established by field measurement.
- C. Sheet Size: Except for templates, patterns and similar full-size drawings, submit shop drawings on sheets 8½" x 11", 11" x 17", or 30" x 42". No other sizes will be accepted.
- D. Submittal: Submit at least two blue-line prints. One of the blue-line prints will be retained by the Architect. The Contractor shall be responsible for making appropriate number of copies for distribution to other affected parties.
- E. Do not use shop drawings without an appropriate final stamp indicating action taken in connection with construction.

#### 1.10 PRODUCT DATA

A. Collect product data into a single submittal for each specified product. Product data includes printed information such as catalog cuts, Material Safety Data Sheets (MSDS), and other

performance information.

Mark each copy to show applicable choices and options. Where printed product data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:

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- a. Manufacturer's printed recommendation.
- b. Compliance with recognized trade association standards.
- c. Compliance with recognized testing agency standards.
- d. Application of testing agency labels and seals.
- e. Notation of dimensions verified by field measurement.
- f. Notation of coordination requirements.
- g. Any limitations on warranty or guarantee of manufacturer.
- 2. Do not submit product data until compliance with requirements of the contract documents has been confirmed.
- B. Submittals: Submit three (3) copies. Submit two (2) additional copies where required for maintenance manuals. The Architect will return one copy marked with action taken and corrections or modifications required.
  - 1. Unless noncompliance with contract documents provisions is observed, the submittal may serve as the final submittal.
- C. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal form.
  - 1. Do not proceed with installation until a copy of the applicable product data is in the Installer's possession.
  - 2. Provide copies for record documents described in Section 01700 Project Closeout.
- D. Do not permit use of unmarked copies of product data in connection with construction.

### 1.11 SAMPLES

- A. Submit full-size, full fabricated samples cured and finished as specified (where applicable) and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or container of materials, color range sets, and swatches showing color, texture and pattern.
  - 1. Mount, display, or package samples in the manner specified to facilitate review of qualities indicated.

Prepare samples to match the Architect's sample. Include the following:

- a. General description of the sample.
- b. Sample sources
- c. Product name or name of manufacturer.
- d. Compliance with recognized standards.

- e. Availability and delivery time.
- 2. Submit samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
  - a. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than three), that show approximate limits of the variations.

- b. Refer to other specification sections for requirements for samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.
- c. Refer to other sections for sample to be returned to the Contractor for incorporation in the work. Such samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of sample submittals.
- B. Submittals: Except for samples illustrating details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit three sets: One set will be returned with comments.
- C. Maintain sets of samples, as returned, at the project site, for quality comparisons throughout the course of construction.
  - 1. Unless non-compliance with contract documents provisions is observed, the submittal may serve as the final submittal.
  - 2. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- D. Distribution of Samples: prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the work. Show distribution on transmittal forms.
- E. Field Samples: Field samples specified in individual sections are special types of samples. Field samples are full-size samples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the work will be judges.
  - 1. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.
  - 2. Allow at least seven (7) days after completion and curing (where applicable) of field sample for Architect's review. Notify Architect in writing upon completion of field sample.
  - 3. Where required, give Architect notice and an opportunity to observe field erection or application of field sample.

# 1.12 COMMUNICATIONS FACILITATING CONTRACT ADMINISTRATION

A. Except as otherwise provided in the contract documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate through the Architect. Communications by and with subcontractors and material suppliers shall be through

the Contractor.

B. All requests for information regarding or clarification of the plans and specifications shall be made in writing referencing the specification section and statement requiring clarification. Deliver to Architect's business address.

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### 1.13 ARCHITECT'S ACTION

- A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Architect will review each submittal, mark to indicate action taken, and return promptly.
  - 1. Compliance with specified characteristics is the Contractor's responsibility.
- B. Submittal Stamp: The Architect will stamp each submittal with a uniform, self-explanatory submittal stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
  - 1. Action A Reviewed: Where submittals are marked "Reviewed", that part of the work covered by the submittal may proceed provided it complies with requirements of the contract documents.
  - 2. Action B Reviewed Additional Information Required: Where submittals are marked "Reviewed Additional Information Required", the information submitted has been reviewed. However, additional information as noted and/or required by contract documents need to be submitted.
  - 3. Action C Furnish as Corrected: When submittal is marked "Furnish as Corrected", that part of the work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the contract documents.
  - 4. Action D Revise and Resubmit: When submittal is marked "Revise and Resubmit", do not proceed with that part of the work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
    - a. Do not permit submittals marked "Revise and Resubmit" to be used at the project site, or elsewhere where work is in progress.
  - 5. Action E Rejected: When submittal is marked "Rejected", information submitted is not in compliance with contract documents. Resubmit submittal as required by contract documents.
- D. Meaning of Architect's Approval: Review is only for conformance with the design concept and for compliance with the information given in the contract documents. Approval does not authorize changes involving additional cost unless stated in separate change order or letter. Contractor is not relieved of responsibility for any deviations in submittals from requirements of the contract documents. Contractor is responsible for dimensions to be confirmed and correlated at the site; for information that pertains solely to the fabrication processes or to means, methods, techniques, sequences and procedures of construction; and for coordination of the work of all trades. Approval of a specific item does not indicate approval of an assembly of which the item is a component.

## 1.14 CONTRACTOR'S ACTION ON RETURNED SUBMITTALS

- A. The Contractor shall coordinate distribution of all product data and samples for the project.
- B. The Contractor is responsible to reproduce and distribute copies of stamped returned submittals as required for this use in abatement, or in corrections for resubmittal.

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C. The Contractor is responsible to reproduce and distribute copies of stamped returned submittals as required for his use and subcontractor's use in preparing and submitting other submittals such as, close-out, maintenance manuals, etc., Refer to other sections of the specifications for requirements.

PART 2 -- PRODUCTS

Not applicable.

PART 3 -- EXCECUTION

Not applicable.

**END OF SECTION** 

#### SECTION 014000 - QUALITY CONTROL

### PART 1 - GENERAL

## 1.01 SECTION INCLUDES

- A. Contractor's Quality Control
- B. Contractor's Quality Control Program
- C. Pre-Installation Conferences
- D. Initial and Follow-up Inspections
- E. Mock Up
- F. Field Samples
- G. Manufacturer's Field Services and Reports
- H. References
- I. Inspection and Testing Laboratory Services
- J. Quality Assurance and Control of Installation
- K. Safety

# 1.02 RELATED SECTIONS

- A. Section 01040 Coordination
- B. Section 01300 Submittals
- C. Section 01700 Project Closeout

## 1.03 CONTRACTOR'S QUALITY CONTROL

A. The quality of all work shall be the responsibility of the Contractor. Sufficient inspections and tests of all items of work, including that of subcontractors, to ensure conformance to applicable specifications and drawings with respect to the quality of materials, workmanship, construction finish, functional performance, and identification shall be performed on a continuing basis. The Contractor shall furnish qualified personnel, appropriate facilities, instruments and testing devices necessary for the performance of the quality control function. The controls shall be adequate to cover all construction operations both on and off site, shall be keyed to the proposed construction sequence and shall be correlated by the Contractor's quality control personnel.

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#### 1.04 CONTRACTOR'S QUALITY CONTROL PROGRAM

- A. The Contractor shall submit to the Architect a copy of the proposed written quality control program prior to submission of the Contractor's first application and certificate for payment. The Contractor's written quality control plan shall include as a minimum:
  - Identification of the project team for this project. Team members include, but are not necessarily limited to, the Owner's Project Manager, Architect, Mechanical Consultant, Electrical Consultant, Site Engineer, Structural Consultant, General Contractor and major subcontractors. List company name, address, contact and telephone number.

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- Name and identification of the Contractor's Quality Control representative (may be the superintendent or other key contract representative). Provide a brief description of proposed duties and qualifications. The quality control representative must have the authority to make all decisions relating to quality control issues.
- 3. General summary and mission statement outlining general procedures for implementation of the program.
- 4. List by specification section the method of performing, documenting and enforcing quality control operations of both prime and subcontract work including proposed and required inspection and testing. Include pre-installation conferences, follow-up inspections, mockups, field samples and manufacturer's inspection, and lead safe work practices and cleaning verifications.
- 5. The Contractor's quality control program shall be submitted and accepted prior to consideration of the Contractor's first certificate and application for payment.

## 1.05 PREINSTALLATION CONFERENCES

- A. Pre-installation conferences shall be performed prior to beginning each feature of work for any on-site construction work. Preparatory inspections for the applicable feature of work shall include: review of submittal requirements and all other contract requirements with the foreman or supervisors directly responsible for the performance of the work; check to assure that provisions have been made to provide required field control testing; examine the work area to ascertain that all preliminary work has been completed; verify all field dimensions and advise the project Architect of any discrepancies; and perform a physical examination of materials and equipment to assure that they conform to approved shop drawings or submittal data and that all materials and/or equipment are on hand; review special requirements, review shop drawings and sample construction mockups as appropriate.
- B. The Contractor shall prepare agenda, preside at conference, record minutes, and distribute copies within five (5) days after conference to participants, with copies to the Architect and Owner.

## 1.06 INITIAL AND FOLLOW UP INSPECTIONS

A. An initial inspection shall be performed as soon as a representative portion of the particular feature of the work is complete and shall include examination of the quality of workmanship as well as a review of the work for compliance with contract requirements. The initial inspection shall be performed by the Contractor's Quality Control

representative and results noted in the Contractor's daily reports. Any deviations from the contract requirements shall be brought to the immediate attention of the Architect.

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#### 1.07 MOCK UP

- A. Assemble and erect specified items, with specified attachment and anchorage devices, flashings, seals and finishes.
- B. Where mock up is specified in individual sections to be removed, clear area after mock up has been accepted by the Architect.

### 1.08 FIELD SAMPLES

- A. Install field samples at the site as required by individual specifications sections for review.
- B. Acceptable samples represent a quality level for the work.
- C. Where field sample is specified in individual sections to be removed, clear area after field sample has been accepted by the Architect.

#### 1.09 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. Submit qualifications of observer to Architect thirty (30) days in advance of required observations. Observer subject to approval of Architect and Owner.
- B. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start up of equipment, and test, adjust, and balance of equipment as applicable, and to initiate instructions when necessary.
- C. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.
- D. Submit report within thirty (30) days of observation to the Architect for review.

## 1.10 REFERENCES

- A. Conform to reference standard by date of issue or current date of contract documents.
- B. Obtain copies of standards when required by contract documents.
- C. Should specified reference standards conflict with contract documents, request clarification from Architect before proceeding.
- D. The contractual relationship of the parties to the contract shall not be altered from the contract documents by mention or inference otherwise in any reference document.

### 1.11 INSPECTION AND TESTING LABORATORY SERVICES

A. Architect will appoint, employ, and pay for services of an independent firm to perform inspection and testing, except when a specification section specifically states that testing of that work be provided for by the Contractor.

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- B. The independent firm will perform inspections, tests, and other services specified in individual specification sections and as required by the Architect.
- C. Reports will be submitted by the independent firm to the Architect, in duplicate, indicating observations and results of tests and indicating compliance or noncompliance with contract documents.
- D. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.
  - 1. Notify Architect and independent firm forty-eight hours prior to expected time for operations requiring services.
  - 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
- E. Retesting required because of nonconformance to specified requirements shall be performed by the same independent firm on instructions by the Architect. Payment for retesting will be charged to the Contractor by deducting inspection or testing charges from the contract sum.

# 1.12 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply fully with manufacturer's instructions, including each step in sequence.
- C. Should manufacturer's instructions conflict with contract documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality. Work that properly should be done by skilled labor shall not be attempted with common laborers. The Contractor shall have on the job, at all times, ample equipment to carry on the work properly, including such tools as may be necessary to meet emergency requirements.

#### 1.13 SAFETY

A. Contractors who perform any work under this contract will fully comply with the provisions of the Federal Occupational Safety and Health Act of 1970 and to the rules and

regulations promulgated pursuant to this Act.

 Contractor must submit a safety program to the Architect prior to starting work on the site. This program should indicate the Contractor's plan to comply with OSHA requirements for the various conditions of the project. The Contractor shall appoint a safety representative on site. The safety program and Contractor's representative names must both be posed.

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- 2. The Architect will take no action on the Contractor's safety program, but will forward it to the Owner for information only. The Contractor is responsible for safety on the project site per the contract documents.
- B. Hazardous Material: In the event the Contractor encounters material on the site, reasonably believe to be asbestos or polychlorinated biphenyl (PCB) that has not been rendered harmless, the Contractor shall immediately stop work and notify the Architect and Owner. Such notification shall be documented in writing.
- C. Provide any and all measures of protection required by the applicable local municipality for the protection of the public and employees during excavation operations and at completion of work. Measures taken shall include, but not be limited to, sidewalks, barricades, warning lights and signs/ and shall comply with American Standard Safety Code and all local laws and ordinances. Maintain in good condition during operations.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

**END OF SECTION** 

### SECTION 016000 - MATERIALS AND EQUIPMENT

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES:

- A. Related Documents
- B. Summary
- C. Definitions
- D. Submittals
- E. Quality Assurance
- F. Product Requirements and Selection Procedures

### 1.02 RELATED DOCUMENTS

A. Drawings and general provisions of contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.

## 1.03 SUMMARY

- A. This section specifies administrative and procedural requirements governing the Contractor's selection of products for use on the project.
- B. The Contractor's construction schedule and the schedule of submittals are included under Division 1 Section "Submittals."
- C. Standards: Refer to Division 1 Section "Reference Standards and Definitions" for applicability of industry standards to products specified.
- D. Administrative procedures for handling requests for substitutions made after award of the contract are included under Division 1 Section "Product Substitutions."

### 1.04 DEFINITIONS

A. Definitions used in this article are not intended to change the meaning of other terms used in the contract documents, such as "specialties," "systems," "structure," "accessories," and similar terms. Such terms such are self-explanatory and have well recognized meanings in the construction industry.

- 1. "Products" are items purchased of incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - a. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.

- "Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or utilized to form a part of the Work.
- 3. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

## 1.05 SUBMITTALS

- A. Product List Schedule: Prepare a schedule showing products specified in a tabular form acceptable to the Architect. Include generic names of products required. Include the manufacturer's name and proprietary product names of each item listed.
  - 1. Coordinate the product list schedule with the Contractor's Construction Schedule and the Schedule of Submittals.
  - 2. Form: Prepare the product listing schedule with information of each item tabulated under the following column headings:
    - a. Related Specification Section Number.
    - b. Generic Name Used in Contract Documents.
    - c. Proprietary Name, Model Number and Similar Designations.
    - d. Manufacturer's Name and Address.
    - e. Supplier's Name and Address.
    - f. Installer's Name and Address.
    - g. Projected Delivery Date, or Time Span of Delivery Period.
  - 3. Initial Submittal: Within twenty (20) days after date of commencement of the work, submit three (3) copies of an initial product list schedule. Provide a written explanation for omissions of data, and for known variations from contract requirements.
  - 4. Architect's Action: The Architect will respond in writing to the Contractor within two weeks of receipt of the completed product list schedule. No response within this time period constitutes no objection to listed manufacturers or product, but does not constitute a waiver of the requirement that products comply with contract documents. The Architect's response will include the following:
    - a. A list of unacceptable product selections, containing a brief explanation of reasons for this action.

## 1.06 QUALITY ASSURANCE

A. Source Limitations: To the fullest extent possible, provide products of the same kind,

from a single source.

- B. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the project, the product selected shall be compatible with products previously selected products that were also options.
- C. Nameplates: Except for required labels and operating data, do not attached or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces or products which will be exposed to view in occupied spaces or on the exterior.
  - 1. Labels: Locate required product labels and stamps on a concealed surface or, where required of observation after installation, on an accessible surface that is not conspicuous.

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- Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
- a. Name of product and manufacturer.
  - b. Model and serial number.
  - c. Capacity.
  - d. Speed.
  - e. Ratings.

## 1.07 PRODUCT REQUIREMENTS AND SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
  - Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect
  - 2. Standard products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures: Product selection is governed by the Contract Documents and government regulations, not be previous project experience. Procedures governing product selection include the following:
  - 1. Proprietary Specification Requirements: Where only a single product or manufacturer is named, provide the product indicated. No substitutions will be permitted.
  - Semi-Proprietary Specification Requirements: Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted.
  - 3. Non-Proprietary Specifications: When the specifications list products or manufacturers that are available and may be incorporated in the work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with contract requirements. Comply with contract document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
  - 4. Descriptive Specification Requirements: Where specifications describe a product

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- or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with contract requirements.
- 5. Performance Specification Requirements: Where specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application.
  - a. Manufacturer's recommendations may be contained in published product literature, or by the manufacturer's certification of performance.

**END OF SECTION** 

#### SECTION 016310 - POST-BID PRODUCT SUBSTITUTIONS

## PART 1 - GENERAL

#### 1.01 SECTION INCLUDES:

- A. Related Documents
- B. Summary
- C. Definition
- D. Submittals
- E. Substitution

## 1.02 RELATED DOCUMENTS

a. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.

# 1.03 SUMMARY

- A. This section specifies administrative and procedural requirements for handling requests for substitutions made after award for the contract.
- 1. Certain materials, products or systems are specified for which no substitutions are allowed. Refer to individual specification sections for specific items.
- B. Refer to AIA Document A701 "Instructions to Bidders" for substitution requirements made prior to bid opening.
- C. The Contractor's construction schedule and the schedule of submittals are included under Division-1 Section "Submittals".
- D. Standards: Refer to Division-1 Section "Reference Standards and Definitions" for applicability of industry standards to products specified.
- E. Procedural requirements governing the Contractor's selection of products and product options are included under Division-1 Section "Materials and Equipment:

#### 1.04 DEFINITIONS

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A. Definitions used in the article are not intended to change or modify the meaning of other terms used in the contract documents.

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- B. Substitutions: Requests for changes in product, materials, equipment, and methods of constructing required by Contract Documents proposed by the Contractor after award of the contract are considered requests for post-bid product substitutions. The following are NOT considered substitutions:
  - Substitutions requested by Bidders during the bidding period, and accepted prior to award of contract, are considered as included in the contract documents and are not subject to requirements specified in this section for post-bid substitutions.
  - 2. Revisions to contract documents requested by the Owner or Architect.
  - 3. Specified options of products and construction methods included in Contract Documents.
  - 4. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

## 1.05 SUBMITTALS

- A. Post Bid Substitution Request Submittal: Only one request for post bid substitution will be considered for each product.
  - Submit three (3) copies of each request for substitution for consideration.
     Submit requests in the form and in accordance with procedures stated herein.
     Use form depicted at end of this section. Contractor is responsible for reproduction of forms.
  - Identify the product, or the fabrication or installation method to be replaced in each request. Include related specification section and drawing numbers. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:
    - a. Product data, including drawings and descriptions of products, fabrication and installation procedures.
    - b. Samples, where applicable or requested.
    - c. A detailed comparison of significant qualities of the proposed substitution with those of the work specified. Significant qualities may include elements such as size, weight, durability, performance and visual effect. Units of weights and measure shall be the same as used in the contract documents.
    - d. Coordination information, including a list of changes or modifications needed to other parts of the work and to construction performed by the Owner and separate Contractors that will become necessary to accommodate the proposed substitution.
    - e. A statement indicating the substitution's effect on the Contractor's Construction Schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall contract time.
    - f. Cost information, including a proposal of the net change, if any, in the Contract Sum.

g. Certification by the Contractor that the substitution proposed is equal to or better in every significant respect to that required by the contract documents, and that it will perform adequately in the application indicated. Include the Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.

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3. Architect's Action: Within one week of receipt of the request for substitution, the Architect will request additional information or documentation necessary for evaluation of the request. Within two weeks of the receipt of the request, or one week of the receipt of the additional information or documentation, the Architect will notify the Contractor of acceptance or rejection of the proposed substitution. If a decision on use of a proposed substitute cannot be made or obtained within the time allocated, use the product specified by name.

## PART 2 -- PRODUCTS

# 2.01 SUBSTITUTIONS

- A. Conditions: The Contractor's post bid substitution request will be received and considered by the Architect when all of the following conditions 1, 2 and 3 and one or more of the following conditions 4, 5, 6, 7, 8 and 9 are satisfied, as determined by the Architect; otherwise requests will be returned without action except to record noncompliance with these requirements.
  - 1. Extensive revisions to contract documents are not required.
  - 2. Proposed changes are in keeping with the general intent of contract documents.
  - 3. The request is timely, fully documented and properly submitted.
  - 4. The specified product or method of construction cannot be provided within the contract time.
  - 5. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
  - 6. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
  - 7. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
  - 8. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.
  - 9. The specified product or method of construction cannot provide a warrant required by the Contract Documents and where the Contractor certifies that the proposed substitution provide the required warrant.

B. The Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or sample that related to construction activities not complying with the Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

PART 3 – EXECUTION (NOT APPLICABLE)

**END OF SECTION** 

# POST-BID SUBSTITUTION REQUEST FORM

			Date:					
Ve hereby s he above pr		for your review th	ne following post-bid substitution for the following specified material for					
<u>Section</u>	<u>Page</u>	<u>Paragraph</u>	Specified Material					
 PROPOSED	POST	-BID SUBSTITU	TION:					
			uding laboratory tests, if applicable. Include complete information on cifications which proposed substitution will require for its proper					
A. Does	the sub	estitution effect di	mensions shown on drawings in any way?					
			or any changes to the building design, including engineering and requested substitution?					
C. What	What effect does substitution have on schedule or other trades?							
	What effect does substitution have on cost?							
D. What			Differences between proposed substitution and specified items are: Same Different (Explain)					

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SUBMITTED BY:	Accepted Not Accepted	Accepted as Noted Received Too Late	
(Firm)	<del></del>		
(Address)	(By)	(Date)	
(Telephone)	(Rema	(Remarks)	
(Signature)			

# SECTION 017000 - PROJECT CLOSEOUT

# PART 1 GENERAL

# 1.01 SECTION INCLUDES:

- A. Related documents.
- B. Summary.
- C. Completion of a building and/or phase.
- D. Final completion and final payment.
- E. Record document submittals.
- F. Starting systems.
- G. Operating and maintenance instructions.
- H. Final cleaning.

# 1.02 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.

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B. Refer to Section 01020 for Final Lien Waiver.

# 1.03 SUMMARY

- A. This section specifies administrative and procedural requirements for project closeout, including but not limited to:
  - 1. Inspection procedures.
  - 2. Project record document submittal.
  - 3. Operating and maintenance manual submittal.
  - 4. Submittal of warranties.
  - 5. Final cleaning.
- B. Closeout requirements for specific construction activities are included in the appropriate Divisions.

C. Refer to Division-1 Section "Warranties and Bonds" for specific requirements.

#### 1.04 SUBSTANTIAL COMPLETION

## A. Substantial Completion:

 The Contractor and each Subcontractor shall carefully and regularly check their work for conformance with the contract documents as the Work is being done. Unsatisfactory work shall be corrected as the Work progresses and not be permitted to remain and become a part of the punch list.

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- 2. The Contractor shall conduct a pre-punch list inspection. The written pre-punch list shall be distributed to affected subcontractors, for correction of noted items. The Contractor shall provide a copy of the pre-punchlist inspection and advise the Architect of the correction of the pre-punch list. This notification shall so serve to notify the Architect that the work is ready for the Architect's punch list inspection.
- 3. The Architect shall make arrangements for his punch list inspection at the earliest possible date following Contractor notification of correction of the pre-punch list. Transmittal of the Punch List to the Contractor shall set the date for a reinspection prior to issuance of a Certificate of Substantial Completion. Upon receipt of the Punch List, the Contractor shall, within seven (7) days, bring to the attention of the Architect, in writing, any questions that he or any of his subcontractors may have concerning the requirements of the Punch List.
- 4. When advised by the Contractor that the Punch List items have been completed, the Architect shall conduct a reinspection with the Contractor and any needed subcontractors (and the Owner's representative where applicable) to determine whether the Certificate of Substantial Completion can be issued. A Certificate of Substantial Completion will only be issued after codes administration authorities document approval and permit occupancy of the building or phase. Also note Paragraph 12 of this section.
- 5. When issued, the Certificate of Substantial Completion shall name the date, triggering the beginning of the warranty period (with any items to have a later starting date specifically noted). The certificate shall also have attached to it any uncompleted Punch List items, and shall name the date for their final completion. The Certificate of Substantial Completion shall also state the responsibilities of the Owner and the Contractor for maintenance, heat, air conditioning, utilities, insurance and building security.
- 6. Acknowledgement of the date of substantial completion by the signature of all parties on the certificate implies possession of the premises by the Owner. The subsequent completion of incomplete punch list items by the Contractor and the subcontractors shall occur at the Owner's convenience. The Owner shall cooperate in permitting the Contractor reasonable access to the work for the completion of punch list items.
- 7. A Certificate of Substantial Completion for the work, or portion of work as applicable, will only be issued after the requirements for the demonstration and instruction of operation and maintenance procedures as defined elsewhere by the Contract Documents, to the Owner's personnel have been satisfied by the Contractor.
- 8. A list of items required for submission at Substantial Completion is listed at the end of this section. This list may include specific maintenance agreements,

maintenance manuals, tools, keys, spare parts, extra stock materials, operational instruction to Owner's operating personnel, etc. Any items not here-in specifically listed as required at Substantial Completion shall be submitted at Final Completion.

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- 9. Substantial Completion Cleaning: At Substantial Completion for each project or portion of the project, clean the entire work area to a level acceptable to the Owner, for finish cleaning by the Owner's custodial personnel. non-permanent protection and labels, polish glass, clean exposed finishes, touch-up minor finish damage, clean or replace filters of mechanical systems. remove debris and broom clean non-occupied spaces, sanitize plumbing/food service facilities, clean light fixtures and replace burned out/dimmed lamps, sweep and wash paved areas, police yards and grounds. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces. Mop VCT or seamless floor surfaces clean. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
- The Contractor shall furnish a single report 10. Lead Safe Project Report: documenting compliance with recordkeeping and reporting of requirements of 40 CFR Part 745.85 including documentation that a certified renovator was assigned to the project, that the certified renovator provided on-the-job training for workers used on the project, that the certified renovator performed or directed workers who performed all of the tasks described in Part 745.85, and that the certified renovator performed the post-renovation cleaning verification described in Part 745.85. If the renovation firm was unable to comply with all of the requirements of this rule due to an emergency as defined in Part 745.82, the Contractor shall document the nature of the emergency and the provisions of the rule that were This documentation must include a copy of the certified not followed. renovator's training certificate, and a certification by the certified renovator assigned to that project that:
  - Training was provided to workers (topics must be identified for each worker).
  - b. Pre-renovation education and hazard communication was performed before and updated during the project.
  - c. Warning signs were posted at the entrances to the work area.

(6) Covering the floor surface, including installed carpet, with taped-down plastic sheeting or other impermeable material in the work area 6 feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to contain the dust, whichever is greater (interiors) or covering the ground with plastic sheeting or other disposable impermeable material anchored to the building extending 10 feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to collect falling paint debris, whichever is greater, unless the property line prevents 10 feet of such ground covering, weighted down by heavy objects (exteriors).

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- (7) Installing (if necessary) vertical containment to prevent migration of dust and debris to adjacent property (exteriors).
- e. Waste was contained on-site and while being transported off-site.
- f. The work area was properly cleaned after the renovation by:
  - (1) Picking up all chips and debris, misting protective sheeting, folding in dirty side inward, and taping it for removal.
  - (2) Cleaning the work area surfaces and objects using a HEPA vacuum and/or wet clothes or mops (interiors).
- g. The certified renovator performed the post-renovation cleaning verification (the results of which must be briefly described, including the number of wet and dry cloths used).
- 12. The Owner has contracted with the Architect/Engineer to perform a limited number of punchlist inspections and reinspections. Typically, the Architect/Engineer is responsible for the initial punchlist inspection and one reinspection. If the Owner incurs additional cost from the Architect/Engineer for the performance of more than one initial punchlist inspection and one reinspection, costs for any necessary additional reinspection will be assessed to the Contractor in the way of a deductive cost change order.

## B. Final Completion:

- Submit executed warranties, workmanship bonds, remaining maintenance agreements, inspection certificates and similar required documentation for specific units of work, enabling Owner's unrestricted occupancy and use.
- 2. Submit maintenance manuals, tools, keys, spare parts, extra stock materials not required at substantial completion.
- 3. Complete instruction of Owner's operating personnel with start up of all systems, not previously required at substantial completion.
- 4. Complete final cleaning and remove temporary facilities.
  - a. Final Cleaning: At closeout time of each building, or applicable portion, reclean the work affected by punch list corrections. Remove non-permanent protection, polish glass, clean exposed finishes, touch-up minor finish damage, remove debris and broom clean non-occupied spaces, sanitize plumbing/food service facilities, clean light fixtures, sweep and wash paved areas, police yards and grounds, and perform similar clean up operations needed to produce a "clean" condition as judged by Architect and Owner.
- 5. All punch list work must be completed, reviewed and accepted by the Architect.

## 1.05 FINAL COMPLETION AND FINAL PAYMENT

A. Provide submittals to Architect that are required by governing or other authorities. Confirm that all submittals required by the construction documents have been transmitted.

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- B. Final Completion: For the purpose of determining a date at which the project is finished, final completion may be defined to include, but is not limited to:
  - 1. Substantial completion.
  - 2. Submission and acceptance by the Architect of project record drawings.
  - 3. Operation and maintenance data (including all air and water balance reports).
  - 4. All applicable Owner training sessions with meeting notes distributed (video tapes, if applicable).
  - 5. Final cleaning.
  - 6. Adjusting (hardware, HVAC, etc.)
  - 7. Warranties submitted by General Contractor and accepted by Architect.
  - 8. Spare parts and maintenance materials turned over to proper District personnel.
  - 9. All Punch List work completed, reviewed and accepted by the Architect.
    - a. All of the above items are as required by individual specification requirements as found in the contract documents. These individual requirements shall take precedence over this definition if any conflict should arise.
- C. Upon written notice by the Contractor that the reinspection punch list items are completed, the Architect shall verify this by inspection and shall issue to the Owner a final certificate of payment stating that, to the best of their knowledge, information and belief, the work has been completed in accordance with the terms and conditions of the contract documents, and that the entire balance found to be due the Contractor, and noted in said final certificate of payment, is due and payable. The Owner shall endeavor to make final payment within thirty (30) days.

## 1.06 RECORD DOCUMENT SUBMITTAL

- A. General: Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Architect's reference during normal working hours.
  - 2. For work concealed in the building, sufficient information shall be given so it can be located with reasonable accuracy and ease. In some cases this may be by dimension; in others, it may be sufficient to illustrate the work on the drawings in relation to the spaces in the building near which it was actually installed. Architect's decision in this matter shall be final.
  - 3. Blue- or black-line record drawings shall be kept up to date during the entire course of the work and shall be available upon request for examination by the Architect.

- 4. The following requirements apply to all record document drawings:
  - a. They shall be maintained at the Contractor's expense.
  - b. All such drawings shall be done carefully and neatly by a competent draftsperson and in an approved form.

- c. Additional drawings shall be provided as necessary for clarification.
- d. Delete Architect title block and seal from record document drawings.
- C. Record Manual: Reference lighting specification for specific requirements.

## PART 2 – PRODUCTS (NOT APPLICABLE)

# PART 3 -- EXECUTION

## 3.01 STARTING SYSTEMS

- A. Coordinate schedule of start up of various equipment and systems.
- B. Notify Architect and Owner seven (7) days prior to start up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions that may cause damage.
- D. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start up under supervision of responsible manufacturer's representative (Contractor's personnel) in accordance with manufacturer's instructions.
- G. When specified in individual specification sections, require manufacturer to provide authorized representative to be present at site to inspect, check and approve equipment or system installation prior to start up, and to supervise placing equipment or system in operation.
- H. Submit a written report in accordance with Section 01400 that equipment or system has been properly installed and is functioning correctly.

## 3.02 OPERATING AND MAINTENANCE INSTRUCTIONS

A. General: Arrange for each Installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance, if applicable. If Installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include a detailed review of the following items:

- 1. Maintenance manuals.
- 2. Record documents.
- 3. Spare parts and materials.
- 7. Identification systems.
- 8. Control sequences.
- 10. Cleaning.
- 11. Warranties and bonds.
- 12. Maintenance agreements and similar continuing commitments.
- B. As part of instruction for operating equipment, demonstrate the following procedures:

- 1. Start up.
- 2. Shutdown.
- 6. Economy and efficiency adjustments.
- 7. Effective energy utilization.

**END OF SECTION** 

#### SECTION 017110 - CLEANING

## PART 1 - GENERAL

## 1.01 SECTION INCLUDES

- A. Description
- B. Disposal Requirements
- C. Materials
- D. During Construction
- E. Dust Control
- F. Final Cleaning

## 1.02 DESCRIPTION

A. Contractor will be responsible to execute daily cleaning, during progress of the Work and at completion of the Work, as required by General Conditions. The Contractor is to daily, broom clean debris and remove all refuse, rubbish, scrap material caused by his operation. The Contractor shall remove all excess spoils.

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# 1.03 CLEANING AND DISPOSAL REQUIREMENTS

A. Conduct cleaning and disposal operations to comply with Scope of Work Section 01710 Construction Housekeeping, codes, ordinances, regulations, and anti-pollution laws.

# 1.04 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by the manufacturer of the surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

#### 1.05 DURING CONSTRUCTION

A. Contractor at all times shall keep the premises free from accumulation of waste materials

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or rubbish caused by his operations or his subcontractor's operations and ensure that building and grounds are maintained free from accumulations of waste materials and rubbish. Do not allow waste materials, rubbish and debris to accumulate and become an unsightly or hazardous condition.

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- B. Transport waste materials in a controlled manner with as few handling as possible; do not drop or throw materials from heights. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces. Sprinkle dusty debris with water.
- C. Burning or burying of rubbish and waste materials on the project site is not permitted. Disposal of volatile fluid wastes (such as mineral spirits, oil, or paint thinner) in storm or sanitary sewer systems is not permitted. Remove waste materials, rubbish and debris from the site and legally dispose of at public or private dumping areas off the Owner's property.

## 1.06 DUST CONTROL

- A. Clean interior spaces prior to the start of finish painting and/or other applicable work, and continue cleaning on as as-needed basis until such work is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly-coated surfaces.
- C. Broom clean interior building areas when ready to receive finish painting and/or other applicable work, and continue cleaning on as-need basis until building is ready for acceptance or occupancy.

## 1.07 FINAL CLEANING

- A. At completion of construction and just prior to acceptance or occupancy, the Contractor will conduct a final inspection of exposed interior and exterior surfaces. Perform final cleaning and maintain cleaning until building or portion thereof, is accepted by Owner.
- B. Remove paint spots and smears from all surfaces, clean all fixtures and wash or vacuum all floors; leaving work in a clean and spotless condition.
- C. Remove all waste materials and rubbish from and about the Project as well as all tools, construction equipment, machinery and surplus materials.
- D. Use experienced workmen or professional cleaners for final cleaning.
- E. Comply with cleaning instructions contained in the Specifications. In absence of specific cleaning instructions, follow accepted cleaning practices or the recommendations of the manufacturer of the material to be cleaned.

**END OF SECTION** 

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#### SECTION 017320 - SELECTIVE DEMOLITION

## PART 1 - GENERAL

## 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

## A. Related Sections include the following:

- 1. Division 1 Section "Summary of Work" for use of the premises and phasing requirement.
- 2. Division 1 Section "Construction Facilities and Temporary Controls" for temporary construction and environmental-protection measures for selective demolition operations.
- 3. Division 1 Section "Cutting and Patching" for cutting and patching procedures for selective demolition operations.

# 1.03 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.
- C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

## 1.04 MATERIALS OWNERSHIP

A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.

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B. Specific items may be identified for salvage and turn-over to the Owner at the completion of the project. Any items so identified, are the property of the Owner but shall be protected and maintained by the Contractor for the duration of the construction project. Carefully remove and salvage each item or object in a manner to prevent damage, and protect such items in a secure location for prompt delivery to the Owner at the conclusion of the project.

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#### 1.05 SUBMITTALS

- A. Qualification Data: For firms and person specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- B. Proposed Dust-Control and Noise-Control Measures: Submit statement or drawing that indicates the measures proposed for use, proposed locations, and proposed time frame for their operation. Identify options if proposed measures are later determined to be inadequate.
- C. Schedule of Selective Demolition Activities: Indicate the following:
  - Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
  - 2. Interruption of utility services.
  - 3. Coordination for shutoff, capping and continuation of utility services.
- D. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.
- E. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

## 1.06 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI A10.6 and NFPA 241.
- C. Predemolition Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Meetings." Review methods and procedures related to selective demolition including, but not limited to, the following:
  - 1. Inspect and discuss condition of construction to be selectively demolished.

2. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.

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3. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.

## 1.07 PROJECT CONDITIONS

- A. Owner will occupy portions of the site/building in and around the demolition area. Conduct selective demolition so Owner's operations will not be disrupted. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
- B. Maintain access to existing access ways other occupied or used facilities.
  - 1. Do not close or obstruct access way, or other occupied or used facilities without written permission from authorities having jurisdiction.
- C. Owner assumes no responsibility for condition of areas to be selectively demolished.
  - 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- D. Hazardous Materials: It is not expected that hazardous materials, other than lead bearing materials, will be encountered during the work.
  - 1. Hazardous materials will be removed by Owner before start of the Work, except lead based paints and coatings.
  - 2. If other non-lead containing materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Not-lead bearing hazardous materials will be removed by Owner under a separate contract.
  - 3. The Contractor shall be fully and solely responsible for work involving lead bearing materials.
- E. Storage or sale of removed items or materials on-site will not be permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
  - 1. Maintain fire protection facilities in service during selective demolition operations.

## PART 2 - PRODUCTS

A. Use repair materials identical to existing materials.

 If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible

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- Use materials whose installed performance equals or surpasses that of existing materials.
- B. Comply with material and installed requirements specified

## PART 3 -- EXECUTION

#### 3.01 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

# 3.02 UTILITY SERVICES

- A. Existing Utilities: Maintain services indicated to remain and protect them against damage during selective demolition operations.
- B. Do not interrupt existing utilities serving occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to authorities having jurisdiction.
  - 1. Provide at least 72 hours (3 working days) notice to Owner if shutdown of service is required during changeover.
- C. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utilities serving areas to be selectively demolished.
  - 1. Owner will arrange to shut off indicated utilities when requested by Contractor.
  - If utility services are required to be removed, relocated, or abandoned, before
    proceeding with selective demolition provide temporary utilities that bypass area
    of selective demolition and that maintain continuity of service to other parts of the
    building.

3. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

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#### 3.03 PREPARATION

A. Dangerous Materials: Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.

# 3.04 POLLUTION CONTROLS

- A. Dust Control: Use suitable methods to limit spread of dust and dirt. Comply with governing environmental protection regulations.
  - 1. Do not use water when it may create hazardous or objectionable conditions, such as ice, flooding, and pollution.
- B. Disposal: Remove and transport debris in a manner that will prevent damage to adjacent surfaces and areas.
- C. Cleaning: Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

#### 3.05 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  - 1. Proceed with selective demolition systematically.
  - 2. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces.
  - 3. Do not use cutting torches until work area is cleared of flammable materials. Maintain portable fire suppression devices during flame-cutting operations.
  - 4. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off site.
  - 5. Dispose of demolished items and materials promptly.
  - 6. Return elements of construction and surfaces that are to remain to condition existing before selective demolition operations began.
- B. Existing Facilities: Comply with Owner's requirements for using and protecting walkways, driveways, entries, and other facilities during selective demolition operations.
- C. Removed and Salvaged Items: Comply with the following:
  - 1. Clean salvaged items.

- 2. Pack or crate items after cleaning. Identify contents of containers.
- 3. Store items in a secure area until delivery to Owner.
- 4. Transport items to Owner's storage area designated by Owner.
- 5. Protect items from damage during transport and storage.
- D. Removed and Reinstalled Items: Comply with the following:
  - 1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.

- 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
- 3. Protect items from damage during transport and storage.
- 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition.
- F. Existing Items to be Abandoned in Place: Fill underground piping systems to be abandoned with sand as required to prevent future collapse.

## 3.06 PATCHING AND REPAIRS

- A. General: Promptly repair damage to adjacent construction caused by selective demolition operations.
- B. Patching: Comply with Division 1 Section "Cutting and Patching".

## 3.07 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on site.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

## **END OF SECTION**

#### SECTION 017400 - WARRANTIES AND BONDS

## PART 1 - GENERAL

## 1.01 SECTION INCLUDES:

- A. Related Documents
- B. Summary
- C. Definitions
- D. Warranty Requirements
- E. Submittals

## 1.02 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to this section.

# 1.03 SUMMARY

- A. This section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturers' standard warranties on products and special warranties.
  - 1. Refer to the general conditions of the contract for construction of terms of Contractor's warranty of workmanship and materials.
  - General closeout requirements are included in Division-1, Section "Project Closeout".
  - 3. Specific requirements for warranties for the work and products and installations that are specified to be warranted, are included in the individual sections of Divisions-2 through 32.
  - 4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
- B. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the work that incorporated the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

#### 1.04 DEFINITIONS

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A. Standard product warranties are reprinted written warranties published by individual manufacturers for particular product and are specifically endorsed by the manufacturer to the Owner.

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B. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

#### 1.05 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted work.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and has been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the Owner has benefited from use of the work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- E. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

# 1.06 SUBMITTAL

- A. Submit written warranties to the Architect prior to the date certified for Substantial Completion If the Architect's certificate of substantial completion designates a commencement date for warranties other than the date of Substantial Completion of the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.
  - 1. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Architect within fifteen (15) days of completion of that designated portion of the Work.

2. In all other instances, warranty periods will not begin prior to Substantial Completion, regardless of equipment use prior to dates of Substantial Completion.

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- B. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner through the Architect for approval prior to final execution.
  - 1. Refer to individual sections of Divisions-2 through 16 for specific content requirements, and particular requirements of submittal of special warranties.
- C. Form of Submittal: At final completion, compile two copies of each required warranty and bond properly executed by the Contractor, or the Contractor, subcontractor, supplier or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the project manual.
- D. Bind warranties and bonds in heavy-duty, commercial quality, durable three-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½" x 11" paper.
  - 1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
  - Identify each binder on the front and the spine with the typed or printed title 'WARRANTIES AND BONDS", the project title or name, and the name of the Contractor.
  - 3. When operating and maintenance manuals are required for warranted constitution, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION (NOT APPLICABLE)

**END OF SECTION** 

## SECTION 274116 AUDIO-VISUAL SYSTEMS

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#### PART 1 - GENERAL

#### 1.1 DESCRIPTION OF WORK

- A. This section pertains to the audio-visual systems to be furnished and installed in the following facilities for the Shawnee Mission School District AV Upgrades 2021 (C0088):
  - 1. Shawnee Mission East High School Auditorium (SME)
  - 2. Indian Hills Middle School Gymnatorium (IHMS)
  - 3. Shawnee Mission West High School Auditorium (SMW)
  - 4. Shawnee Mission Northwest High School Auditorium (SMNW-A)
  - Shawnee Mission Northwest High School Auditorium (SMNW-LT)
- B. It is the purpose of this specification to require the furnishing of highest-quality materials, equipment, and workmanship. The work shall be in accordance with this specification and in conformity with the designs, layouts, and descriptions shown on the drawings.
- C. Any and all structural, mounting, or rigging details on the drawings are shown for concept only. It shall be the responsibility of the Systems Contractor to employ the services of a qualified Structural Engineer to be responsible for the design of the details to be employed. Stamped shop drawings and calculations of all such details shall be submitted to the Architect for review.
- D. Except as noted on the drawings, the work shall include everything necessary or incidental to complete the installation INCLUDING wire raceway, conduit, raceway fittings, outlet boxes, pull boxes, terminal cabinets, reconfiguration of existing 120-volt AC power circuits, low-voltage control equipment, and insulated ground cables. New 102-volt AC power service required for new equipment rack and flat panel display locations to be furnished by Owner.
- E. The Systems Contractor shall cooperate with all other contractors engaged in this project and shall coordinate the installation of the audio-visual systems so that all work will proceed in a manner which is in the best interests of the Owner.

## 1.2 ALTERNATES

- A. Proposals for this work shall include prices for the following Alternate. Quantities for a specified item of equipment shall be determined from the drawings and/or as noted herein. Items not specifically identified on the drawings as being part of an Alternate shall be considered to be part of the basic scope of work.
- B. Alternate No. 1 (Additive): ADD the Digital Audio Expansion Card @ IHMS as described in these specifications.

#### 1.3 EXISTING CONDITIONS

- A. These facilities are existing structures. It shall be the responsibility of each bidder to verify all conditions and dimensions which pertain to this work.
- B. The Systems Contractor shall verify the location, the operating conditions, and the conditions affecting the proposed work. Items to be verified by the Systems Contractor shall include, but not be limited to, reuse of existing equipment and access requirements to install all concealed components of the work. Bids submitted shall account for and include, but not be limited to, any and all work associated with providing concealed components (such as cable or conduits) and the complete restoration of all existing building components that are disturbed, modified, or dismantled in the process of installing the concealed components of the work.

C. Except as otherwise scheduled and approved by the Owner, the existing audio-visual system shall remain operational in occupied areas throughout the installation, testing, and equalization of the new or reused/relocated components associated with this project. The Systems Contractor shall coordinate the installation of the new and reused/relocated audio-visual system components with the Architect and/or Owner to provide complete and operational systems for all operational facilities during and after each phase of the project and minimize disruption to occupants.

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- D. Unless specifically noted on the drawings, existing audio-visual system components and wiring outside the scope of this project shall not be damaged or disturbed. Any such damage to the existing system shall immediately be reported to the Architect and AV Consultant, and if caused by the Systems Contractor, shall be repaired or replaced by the Systems Contractor as approved by the Architect at no additional cost to the Owner.
- E. Existing audio-visual system conduit and circuits in the facility may be reused where appropriate for the new audio-visual system, subject to the following stipulations: 1) the existing conduit and/or circuits are installed in locations and using methods consistent with the drawings and these specifications; 2) the existing circuits are consistent in type and application as indicated by the drawings and specifications; 3) the existing circuits can remain installed and operational until no longer required as indicated in these specifications; and 3) the conduit permits segregation of circuits according to type per these specifications.
- F. Any existing equipment described in these specifications or shown on the drawings to be removed and not reused shall be turned over, undamaged, to the Owner at each school location.
- G. As indicated on the drawings or defined herein, some existing audio-visual system equipment shall be reused with the new system. Prior to reuse of this equipment, the Systems Contractor shall verify that the equipment is in proper operating condition and shall provide brackets or shelf units as required for rack-mounting existing equipment. The Systems Contractor shall report to the AV Consultant any existing equipment problems and shall also provide pricing to repair or replace the inoperable existing equipment. Existing equipment to be reused includes the following:
  - 1. Power Amplifiers, where noted on the drawings (IHMS).
  - 2. Loudspeakers, full-range and sub-bass, where noted on the drawings (All schools).
  - Equipment Racks and associated rack drawers and other components as noted on the drawings (All schools).
  - 4. Production Intercom Systems (All schools).
  - 5. Field Microphone Circuits and Patch Panels, where noted on the drawings (All schools).
  - 6. Passive Monitor Loudspeaker Circuits (SME, IHMS, SMNW-A).
  - 7. Existing Compatible Portable Equipment, including wireless microphone systems (All schools).
  - 8. Backstage Area Loudspeakers and associated distribution equipment (SME, SMW, SMNW-A).

# 1.4 DEFINITION OF TERMS

- A. The term "Owner" shall refer to Shawnee Mission School District; 8200 W. 71st Street, Shawnee Mission, KS 66204; phone (913) 993-6200.
- B. The term "Architect" shall refer to HTK Architects; 9300 W 110th Suite 150 Overland Park, KS 66210; phone (913) 663-5373.
- C. The term "AV Consultant" shall refer to AVANT ACOUSTICS, LLC; 14827 W. 95<sup>th</sup> Street; Lenexa, KS 66215; phone (913) 888-9111; facsimile (913) 888-9193.

D. The term "Systems Contractor" shall refer to the person, persons, or company who or which contracts for the performance of the audio-visual system work specified herein.

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#### 1.5 CONTRACTOR QUALIFICATIONS

- A. The Systems Contractor must be a "Systems Contractor" who regularly engages in the furnishing and installation of commercial and industrial audio-visual systems.
  - 1. The Systems Contractor shall have completed at least three (3) projects in the last five (5) years of similar size and scope.
- B. The Systems Contractor must maintain a suitably staffed and equipped service organization and must regularly offer maintenance services for systems of this type and size.
- C. The Systems Contractor shall be able to respond to on-site maintenance service requests within 24 hours during the warranty period described in section 3.7 System Warranty and Maintenance at the end of these specifications.
- D. The Systems Contractor is required to employ staff, to be engaged in this project, with the following certifications:
  - 1. Certified Technology Specialist Installation.
  - 2. Certified Crestron Programmer.
- E. As part of the bid submittal, Systems Contractor shall submit appropriate information to demonstrate to the satisfaction of the Owner, Architect, and AV Consultant that the Systems Contractor has
  - 1. Completed similar projects as described above;
  - 2. Adequate plant and equipment to pursue the work properly and expeditiously;
  - 3. Ability to provide maintenance visits in the time window described above;
  - 4. Adequate staff with the required technical experience and certifications described above;
  - 5. Suitable financial status to meet the obligations of the work.
- F. Any other contractor, who intends to bid on this work as the prime contractor and does not otherwise meet the requirements of the "Contractor Qualifications" paragraph(s) above, shall employ the services of a "Systems Contractor" who does meet the requirements noted above and who shall furnish the audio and video equipment; shop fabricate the equipment racks and subassemblies; make all audio, video and control connections to equipment and equipment racks in the AV equipment room; make all connections to remote mixer controls and microphone connection panels; and continuously supervise the installation and connections of all audio-visual system cable and equipment.
- G. A subcontractor so employed as the "Systems Contractor" must be acceptable to the Architect and the AV Consultant and shall be identified on the Bid Proposal Form.

# 1.6 SUBMITTALS

- A. The Systems Contractor shall submit a minimum of four (4) suitably bound sets, or electronic documents, of the following Shop Drawings per the schedule listed below for review by the Architect and the AV Consultant. Refer to the General and Special Conditions for additional set(s) which may be required.
  - 1. Prior to proceeding with the work:
    - A complete list of ALL equipment and materials which are to be furnished. Accompanying the list shall be equipment quantities and manufacturers' specification or cut sheets for all sound system equipment (e.g. microphones, audio program source equipment, power amplifiers, loudspeakers), audio-visual equipment (e.g. projectors, program source equipment, monitors, video processing equipment), AV control equipment (e.g. touchpanels, system controllers, interface/control cards), and any other MAJOR items of equipment.

- 2. Prior to proceeding with respective portions of work:
  - a. Artwork, drawings, and listings indicating proposed nameplate nomenclature and arrangements for control panels, patch panels, connection plates, floor boxes, and nameplates prior to fabrication as described elsewhere in these specifications.
  - b. Details of proposed loudspeaker suspension including attachment methods, weights, and suspension locations approved by the Systems Contractor's Structural Engineer.

- c. Details showing projector/television/flat panel display mounting.
- d. Front panel layouts for all equipment racks and AV lecterns, prior to installation, reflecting equipment, and labels to be used.
- Mounting schemes for all external input/output transformers, potentiometers, and control switches.
- f. Diagrams for AC power low-voltage control switching, indicating distribution and sequencing of AC circuits for both on and off cycles.
- g. Control system layout.
- h. Custom furniture and/or custom millwork.
- Details and descriptions of any other aspect of the audio-visual system which must differ from the drawings due to field conditions or due to the selected equipment to be furnished.
- 3. As otherwise noted on the drawings and/or as noted herein.
- B. Approved shop drawings and equipment instruction brochures, including schematic diagrams for all amplifiers and other electronic devices, shall be present at the job site during the period set aside for final system test and equalization.
- C. Notebooks of operating instructions shall be prepared as described elsewhere in the specifications.

#### PART 2 - PRODUCTS

#### 2.1 GENERAL

- A. It is the intention of these specifications to provide a complete and properly operating audio-visual system. The major items of equipment shall be furnished in the quantity indicated by the audio-visual system diagrams on the drawings or in the quantity as specified herein. (Refer to the Portable Equipment Quantity list at the end of the specifications.) However, any minor item of equipment or hardware that may not be specifically shown on the drawings or specified herein but required for proper audio-visual system operation or installation shall be furnished by the Systems Contractor.
- B. All equipment and material shall be new and shall be suitable for continuous operation.
- C. The latest version of all specified equipment shall be furnished by the Systems Contractor.
- D. In any case, where a specific specification has not been included herein or shown on the drawings for any item that is required, the Systems Contractor shall furnish only the best quality equipment or material consistent with the quality of other specified equipment and material.
- E. Where the specifications list several manufacturers for a particular major item of equipment such as power amplifiers or loudspeakers, the Systems Contractor shall supply all of that item of equipment from one manufacturer.

## 2.2 SUBSTITUTIONS

- A. Where a specific piece of equipment has been discontinued and/or replaced by a new model, submission of the new model or a suitable item as applicable may be required by the AV Consultant for evaluation prior to acceptance.
- B. If substitute equipment is allowed by written consent, the Systems Contractor shall be completely responsible for the use of such equipment. The Systems Contractor shall replace all such equipment with equipment listed by type number in the specifications if there is any evidence of equipment instability or unsuitability.

- C. Costs of any required evaluation and testing of substitute equipment shall be paid by the Systems Contractor.
- D. Any use of substitute equipment shall be at no extra cost to the Owner.
- E. Proposed substitute equipment shall be specifically noted in submittals as "substitution" with a footnote stating the reason for the substitution.

F. Offerors proposing to furnish an "or equal" product must furnish all descriptive material necessary to demonstrate the acceptability of such product. The AV Consultant shall be the sole determiner as to whether the proposed "or equal" product is suitable for use in work based upon review of the descriptive materials furnished.

## 2.3 SOUND SYSTEMS

#### A. Microphones

- Handheld Microphone, dynamic cardioid, with metal body and XLR connector, and with microphone stand adapter.
  - a. AKG D7; or
  - b. Audix OM5; or
  - c. Sennheiser e835.
- 2. Instrument Microphone, with metal body and XLR connector, dynamic cardioid, with microphone stand adapter.
  - a. AKG C430; or
  - b. Audix ADX51; or
  - c. Sennheiser e614; or
  - d. Approved equal.
- 3. Hanging Microphone, condenser cardioid, 30-foot cable, and with connector to mate with the power module and mounting accessories as required.
  - a. Shure Microflex MX202B/C.
- Paging Microphone, with plastic body and coiled cord, dynamic omnidirectional, with push-to-talk switch.
  - a. Astatic 611L with 5-pin XLR connector terminated to cable.
- 5. Stereo Recording Microphone, stereo shotgun, with M-S mode and matrixed L-R mode, metal body, and 5-pin XLR connector, with shock mount adapter.
  - a. Audio-Technica BP4029 with AT8415 shock mount.
  - b. Mount microphone to catwalk as indicated on plans.
- 6. Wireless Microphone System, UHF, digital, true diversity operation, with handheld or bodypack receiver quantities as shown on drawings, no gain control on the outside of the case, metal body, with LCD information screen, IR sync, and with rack mount kit and power supply as required, to match existing devices.
  - a. Shure QLX-D Series units listed below
    - 1) QLXD receiver.
    - QLXD1 body-pack transmitter, with two sets of alkaline batteries, quantity as indicated on the drawings.
    - 3) QLXD2/BETA87A handheld transmitter, with two sets of alkaline batteries, quantity as indicated on the drawings.
  - b. Furnish and install manufacturer's remote antennas with coaxial cable as required for permanently mounted receivers.
  - c. New components at SME, IHMS, & SMW to be in G50 Frequency band (470-534 MHz) to match existing wireless systems to be reused.
  - d. Provide a different operating frequency for each wireless microphone transmitter/receiver pair, free from interference, in the UHF Band on an unused channel per FCC regulations. Assist the Owner in licensing these transmitter(s) as required.

- 7. Replacement Wireless Microphone Cartridge, supercardioid polar pattern, interchangeable capsule compatible with existing wireless handheld transmitters, metal housing.
  - a. Shure RPW120 Wireless Beta 87A Cartridge, for use with existing handheld wireless transmitters (Shure QLXD2) as shown on the drawings.

- 8. Earset Microphone, each with cable four feet long, with dual-ear adapter, with connector compatible with wireless body-pack transmitter specified above, flexible boom.
  - a. Type 1A, Point Source Audio CO-8WD-XSH-BE.
  - b. Type 1B, Point Source Audio CO-8WD-XSH-BR.
- 9. Lapel Microphone, miniature size, less than 6mm diameter, omnidirectional, with cable four feet long, small diaphragm condenser, for theatrical use, with connector compatible with wireless body-pack transmitter specified above
  - a. Type 1A, Point Source Audio CO-8WL-XSH-BE.
  - b. Type 1B, Point Source Audio CO-8WL-XSH-BR.
  - c. Type 1C, Point Source Audio CO-8WL-XSH-BL.

#### B. Microphone Accessories

- 1. Passive Antenna Splitter/Combiner, for wireless microphone system antennas.
  - a. Shure UA221.
- Antenna Distribution Amplifier, for wireless microphone system UHF antenna, active operation, same manufacturer as Wireless Microphone System chosen above.
  - a. Shure UA844-SWB+.
- 3. Directional Remote Antenna, wideband frequency response, active operation, directional, with surface mounting hardware, same manufacturer as Wireless Microphone System chosen above
  - a. Shure UA874.
- 4. Omnidirectional Remote Antenna, wideband frequency response, passive operation for cable lengths less than 25 feet, active operation for cables lengths greater than 25 feet, omnidirectional, with surface-mounting hardware, same manufacturer as Wireless Microphone System chosen above.
  - Shure UA860SWB, with in-line amplifier UA834WB & in-line power supply UABIAST as required.
- Type 1 Microphone Floor Stand, tripod-style weighted base, with telescoping boom attachment, matte black finish.
  - a. Atlas Sound TB3664; or
  - b. Konig & Meyer 27195; or
  - c. Approved equal.
- 6. Type 2 Microphone Floor Stand, tripod-style weighted base, matte black finish.
  - a. Atlas Sound T3664; or
  - b. Konig & Meyer 20130; or
  - c. Approved equal.
- Microphone Extension Cable, factory fabricated units using Neutrik connectors from Horizon, ProCo, Whirlwind, or Wireworks; black cable, black connectors, with color coded strain relief on male connector only.
  - a. Type 1, 25 feet long (coded red).
  - b. Type 2, 50 feet long (coded blue).
  - c. Type 3, 75 feet long (coded white).
  - d. Type 4, 15 feet long (no color).
  - e. Type 5, 15 feet long (no color), with a Neutrik NC3FX-S cord switch installed on one end of cable connected to short the microphone line in the off position.
- 8. Microphone Cable Tester
  - a. Wireworks Corporation TE-3-Plus.

- 9. Cable strap, Velcro type, with length as required for securing cable.
  - a. Hosa Center-Pass Gap Velcro Cable Organizer; or
  - b. KAJO Company CTB series; or
  - c. Velcro One-Wrap straps.
- Wired Microphone Storage Case, injection molded, with corrosion resistance, with fitted foam inserts for storage of up to 15 handheld microphones with accessories.

- a. Gator Cases GTSA-MIC15; or
- b. Pelican Products; or
- c. SKB.
- 11. Wireless Microphone Storage Case, injection molded, with corrosion resistance, with fitted foam inserts for two handheld microphones and several lift-out trays for lapel and headset microphone pouches and beltpack transmitters.
  - a. Gator Cases GTSA-MICW7; or
  - b. Pelican Products; or
  - c. SKB.

# C. Audio Source Equipment

- CD Recorder, with balanced XLR output connectors, recording to CD, USB, and memory card media, compatible with WAV and mp3 file formats, rack mount, with included wired remote control.
  - a. Tascam SS-CDR250N.
  - b. Provide extension cable as required to allow wired remote to reach operator's location.

#### D. Audio Processing Equipment

- Digital Audio Processor (DAP), multiple balanced switchable mic/line level inputs and outputs as shown on the drawings, with drag and drop type software configurable processing enabling parametric broadband and narrowband filters, audio delays, gain control, and mixing of audio signals, with multiple configurable logic inputs and outputs, expandable architecture, with multiple configurable logic connections; ability to store program on DSP and connected computer, ability to download stored and current programming from DSP, manufacturer's programming shall allow manipulation of signal processing entities by use of computer keyboard without mouse, all components from the same manufacturer.
  - a. Main Chassis.
    - 1) Symetrix Prism, with number of inputs and outputs as required.
  - b. Input/Output Expansion Module, multiple balanced line level inputs and outputs.
    - 1) Symetrix xIO 4x4.
  - c. Input Expansion Module, multiple balanced line level outputs as required.
    - 1) Symetrix xIn 12.
  - d. As part of the final system tests and equalization services, the AV Consultant will provide initial digital signal processor files to the Systems Contractor.
- 2. Analog Audio Input Device, wall-mount form factor, passive operation, with balanced stereo input and mono output, with integral level control attenuator.
  - a. Radial Engineering StageBug SB-5W; or
  - b. Approved equal.
- 3. Bluetooth Audio Input Device.
  - a. QSC Atterotech UNBT2A; or
  - b. Approved equal.

#### E. Audio Mixers & Accessories

1. Type 1 Digital Mixing Console, minimum 64 mix channels, with minimum 32 local mic/line inputs, 8 local line inputs, 16 analog outputs, with multiple mix and matrix busses, with motorized faders with assignable layers, with 64x64 channel Dante digital audio bus, with at least 4 stereo effects processors and 8 graphic equalizers, with color touchscreen display, with scene preset and recall, remote PC and iPad control via Ethernet connection, compatible with Type 1 & Type 2 Stagebox below, with USB memory storage, and with LED gooseneck lamp.

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- a. Yamaha QL-5 with MY8-AD24 Analog Input Card, one LA1L lamp, and dust cover.
- b. Provide on-site end-user training by factory authorized personnel.
- 2. Type 2 Digital Mixing Console, minimum 32 mix channels, with analog inputs and outputs as shown on the drawings, with multiple mix and matrix busses, with motorized faders with assignable layers, expansion audio bus, with 64x64 channel Dante digital audio bus, with at least 4 stereo effects processors and 8 graphic equalizers, with color touchscreen display, with scene preset and recall, remote PC and iPad control via Ethernet connection, compatible with Type 3 Stagebox below, with USB memory storage, and with LED gooseneck lamp.
  - a. Yamaha TF-1 with NY64-D Dante expansion card and dust cover.
  - b. Provide one (1) Middle Atlantic LT-GN gooseneck LED light.
- 3. Type 1 Digital Stagebox, with 16 microphone preamps on XLR connectors, 8 balanced audio outputs, with headamp control, compatible with Type 1 Digital Mixing Console.
  - a. Yamaha Rio1608-D.
  - b. Provide Stagebox Case for where shown as portable.
- Type 2 Digital Stagebox; with 8 microphone preamps on XLR connectors, Dante-enabled, compatible with Type 1 Digital Mixing Console.
  - Yamaha Ri8-D.
  - b. Provide Stagebox Case for where shown as portable.
- 5. Type 3 Digital Stagebox, with 16 microphone preamps on XLR connectors, 8 balanced audio outputs, with headamp control, compatible with Type 2 Digital Mixing Console.
  - a. Yamaha Tio1608-D.
  - b. Provide rackmount hardware for Digital Snake Box where shown permanently installed.
- 6. Stagebox Case, portable rack, size as indicated on the drawings, molded plastic shell, removable front and back panels.
  - a. Gator Cases G-Pro Series; or
  - b. Approved Equal.
- Portable Mixer Case, portable ATA style case with foam lined equipment cutout, removable top section, ball corners, twist latches, and spring handles, sized for the Type 2 Digital Mixing Console specified above.
  - Gator Cases G-Tour Mixer Series; or
  - b. Approved Equal.
- 8. Digital Snake Extension Cable, Category 5e industrial grade cable with ruggedized locking RJ-45 connector on each end.
  - a. Type 1, 25 feet long.
    - 1) Lex Products CAT5-EC-25; or
    - 2) ProCo PCE2-25; or
    - 3) Whirlwind ENC2025.
  - b. Type 2, 50 feet long
    - 1) Lex Products CAT5-EC-50; or
    - 2) ProCo PCE2-50; or
    - 3) Whirlwind ENC2050.
- Digital Audio Expansion Card, Dante 64x64, compatible with existing mixing console, IHMS (Soundcraft Si Expression 2).
  - a. Soundcraft Si Expression Dante Card 5031819.V.
  - b. Install and configure the above mixing card into existing mixing console per manufacturer's instructions, in place of existing audio network card (BluLink).

 Configure console with new Digital Audio Network for main and monitor output operation with new sound reinforcement system.

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# F. Audio Distribution Equipment

- Stereo-to-Mono Converter, passive operation, surface mount, balanced or unbalanced operation, with power supply as required.
  - a. RDL STD Series; or
  - b. Approved equal.
- 2. Line Level Distribution Amplifier, active balanced operation, surface mount, 1 stereo line level input, 2 stereo line level outputs, with power supply and mounting hardware as required.
  - a. RDL RU-ADA4D; or
  - b. Approved equal.

# G. Power Amplifiers

- 1. Type 1 Power Amplifier, 4 channels at 1000 watts per channel at 8 ohms maximum 20A mains connector, with self-protection for shorted circuits and current limiting, with rack ears.
  - a. Ashly Audio nX 8004 operating in Bridged mode (2 amplifiers per 4 channels); or
  - b. Crown DCi 4|1250; or
  - c. Approved equal.
- Type 2 Power Amplifier, 4 channels at 600 watts per channel at 8 ohms, with 70V output mode, maximum 20A mains connector, with self-protection for shorted circuits and current limiting, with rack ears.
  - a. Ashly Audio nX 8004; or
  - b. Crown DCi 4|600; or
  - c. Approved equal.
- 3. Type 3 Power Amplifier, 300 watts per channel at 8 ohms, number of channels as required, with 70V output mode, maximum 20A mains connector, with self-protection for shorted circuits and current limiting, with rack ears.
  - a. Ashly Audio nX 4000 Series; or
  - b. Crown DCi 300 Series; or
  - c. Approved equal.
- 4. Audio input connections to all power amplifiers shall be made with 3-pin microphone type connectors, with spade lugs on barrier terminal strips, or with screw actuated pressure type terminal strips. Audio output connections to all power amplifiers shall be made with spade lugs on barrier strips, with double banana plugs, or with Neutrik "Speakon" type connectors. Connections with ¼-inch phone plugs will not be permitted.

## H. Loudspeakers and Accessories

- Front Row Warmer Loudspeaker, nominal 90 degrees conical nominal coverage pattern, concentric high frequency and low frequency drivers, with internal transformer, nominal -6dB frequency response of 60Hz-16kHz, minimum sensitivity of 87dB at 1kHz.
  - a. Sonance PS-C63RTLP; or
  - b. Approved equal.
  - c. Paint baffle and grille color to match mounting surface.
- Type 1 Two-Way Loudspeaker, with single 12-inch low frequency driver and 1.5-inch high frequency compression driver, with internal rigging points, 96 dB 1W/1m sensitivity @ 1kHz, 300W RMS power rating, nominal 8 ohms, with rotatable horn, nominal -6dB frequency response of 50Hz-16kHz, with mounting hardware as required.
  - a. JBL AM5212, coverage pattern and color as indicated on the drawings; or
  - b. Approved equal.
  - c. Provide mounting hardware as required to mount the loudspeakers in the locations shown on the drawings.
  - d. Rotate horn as required, per orientation shown on drawings.

3. Type 2 Two-Way Loudspeaker, 15-inch low frequency driver, horn loaded high-frequency compression driver, in a coaxial arrangement, sensitivity of 99 dB or higher at 1kHz, 8 Ohm operation, with rotatable horn at 45-degree increments, frequency response of 75Hz-16kHz (-3dB), 400 W continuous power handling, black in color, with processing presets compatible with Digital Signal Processor.

- a. Fulcrum Acoustic CX1565.
- b. Provide mounting and rigging accessories as required to mount the loudspeakers in the location and arrangement as shown on the drawings.
- c. Rotate horn as required, per orientation shown on drawings.
- 4. Type 3 Two-Way Loudspeaker, 15-inch low frequency driver, horn loaded high-frequency compression driver, in a coaxial arrangement, sensitivity of 99 dB or higher at 1kHz, 8 Ohm operation, frequency response of 45Hz-16kHz (-3dB), 400 W continuous power handling, black in color, with processing presets compatible with Digital Signal Processor.
  - Fulcrum Acoustic GX1565.
  - b. Provide mounting and rigging accessories as required to mount the loudspeakers in the location and arrangement as shown on the drawings.
- 5. Type 4 Two-Way Loudspeaker, with dual 8-inch low frequency drivers and high frequency compression driver, with internal rigging points, 90 dB 1W/1m sensitivity @ 1kHz, 100W RMS power rating, nominal 8 ohms, with rotatable horn, nominal 90x60 coverage pattern, nominal -6dB frequency response of 90Hz-16kHz, with mounting hardware as required, with integral transformer where noted, black in color.
  - a. Community V2-28 or V2-28T where a transformer is indicated; or
  - b. JBL AC28/95, with outboard 100W 70V transformer where indicated; or
  - Provide mounting hardware as required to mount the loudspeakers in the locations shown on the drawings.
  - d. Rotate horn as required.
- 6. Distributed Ceiling Loudspeaker; with 8-inch coaxial driver; and with integrated 70-volt transformer, back can and baffle; for flush ceiling mounted applications.
  - a. Atlas Sound FAP8CXT; or
  - b. Community D8; or
  - c. JBL Control Control 226C/T; or
  - d. Tannoy CMS801 DC BM; or
  - e. Approved equal.
- 7. Powered Stage Monitor Loudspeaker; portable; two-way assembly; constant directivity high-frequency horn or dual-concentric driver; 10-inch (nominal) low-frequency driver; black; with asymmetrical enclosure design to enable floor and other mounting configurations; integral pole mount cup; integral power amplifier; XLR input/output connectors; level control; with AC power cable.
  - a. QSC K10.2; or
  - b. Yamaha DXR 10; or
  - c. Approved equal.
- 8. Passive Stage Monitor Loudspeaker; portable; two-way assembly; constant directivity high-frequency horn or dual-concentric driver; 12-inch (nominal) low-frequency driver; black; with asymmetrical enclosure design to enable floor and other mounting configurations; integral pole mount cup; SpeakON input/output connectors.
  - a. QSC E12; or
  - b. Yamaha SM12V; or
  - c. Approved equal.
- Monitor Loudspeaker Extension Cable, 2-conductor SpeakOn connectors, nominal 14-guage, factory fabricated units using Neutrik connectors from Horizon, ProCo, Whirlwind, or Wireworks; black cable.
  - a. Type 1, 25 feet long.
  - b. Type 2, 50 feet long.

10. Loudspeaker Volume Control, size as required for loudspeaker load, stainless steel finish.

- a. Atlas/Sound AT-10, AT-35, or AT-100; or
- b. Lowell 25LVC, 50LVC, or 100LVC; or
- c. Approved equal.
- 11. Loudspeaker Support Stand, 100 pound support load rating, black in color.
  - a. Atlas Sound SS500E; or
  - b. Konig & Meyer 21435; or
  - c. Ultimate Support TS-80B; or
  - d. Approved equal.
- 12. Only the latest versions of the loudspeakers in the above paragraphs shall be furnished. All loudspeakers provided for each type shall match in all respects.
- 13. Verify available mounting depth and clearance at each loudspeaker or loudspeaker enclosure location. Where available depth is insufficient, furnish a reduced-depth version of the specified loudspeaker or enclosure (or alternate unit) as approved on shop drawings showing affected locations and proposed enclosure dimensions and clearances.
- 14. Where loudspeakers are shown on the drawings to be installed above perforated metal panels (if any), do not provide/install loudspeaker baffle, and remove grilles. If required to minimize visibility through ceiling panels, paint enclosure/trim ring and all mounting hardware black. In such installations, loudspeaker assemblies that require the use of a baffle (grille) to attach the loudspeaker to the enclosure are not acceptable.
- 15. Where loudspeakers are installed in exterior conditions, provide manufacturer's or custom gaskets, covers, sealant, or other accessories as required to ensure a weather-resistant installation. Use stainless steel enclosures and hardware to prevent rust in exterior conditions; use Type SO cable where exposed as specified herein.
- 16. All loudspeakers and loudspeaker enclosures shall be supported from the building structure as designed by the Systems Contractor's structural engineer and as indicated on shop drawings submitted to Architect. Such devices installed into a T-bar/channel style ceiling shall have a load support tie-off to the building structure above and not rely on the ceiling support system for structural integrity.
- 17. Where selected loudspeaker models are provided with line matching transformers that include power tap values that are different than the values shown on the drawings, use the available tap nearest to that shown on drawings. Indicate any such different power tap values on shop drawings submitted for review. If tap setting differences result in loads that exceed power amplifier capacity, provide additional power amplifier channel(s) and circuits as required. Submit revised circuiting and equipment requirements with shop drawings for review.
- I. Wireless Hearing Assistance Systems Radio Frequency
  - 1. Radio frequency wireless hearing assistance systems, all components of the same manufacturer a. Listen Corporation.
  - 2. Hearing Assistance Transmitter, frequency selectable, with remote dipole antenna, coaxial cable, power supply and rack mount kit as required.
    - a. Listen LT-800-072 with LA-122 remote antenna.
  - 3. Personal Receiver, frequency selectable, headphone output, with volume control, compatible with Base Station Transmitter chosen.
    - a. Listen LR-4200-072 receiver.
  - 4. Earphones, over ear
    - a. Listen LA-165.
  - 5. Neck Loop Transductors
    - a. Listen LA-166.

Portable Charging Case, metal or molded shell, with charging tray and power supply, compatible
with Personal Receivers above, for housing all portable wireless hearing assistance system
equipment.

- a. Listen LA-380.
- 7. Portable Case (Non-Charging) metal or molded shell, compatible with Personal Receivers above, for housing all portable wireless hearing assistance system equipment.
  - a. Listen LA-320.
- USB Charger, with 4 charging cables, USB to MicroUSB, compatible with Personal Receivers
  above.
  - a. Listen LA-423.
- Provide a different operating frequency for each wireless hearing assistance transmitter system, free from interference, per FCC regulations Part 74, Subpart H. If required, assist the Owner in licensing these transmitter(s).
- J. Production Intercommunication Systems Wired
  - Furnish additional equipment compatible with existing wired partyline intercom system as shown on the drawings and as follows. Unless noted otherwise, furnish all components of system from RTS-Audiocom.
  - 2. Intercom Main Station, two-channel, with power supply.
    - a. RTS Audiocom MS-2002.
  - 3. Intercom Remote Station, 2-gang, flush mounted, 1-channel.
    - a. RTS Audiocom WM-1000.
  - 4. Intercom Belt Pack, belt pack form factor, single channel.
    - a. RTS Audiocom BP-4000.
  - 5. Type 1 Headset, single-ear
    - a. RTS Audiocom HR-1.
  - 6. Type 2 Headset, dual-ear
    - a. RTS Audiocom HR-2.
  - 7. Type 3 Headset, lightweight single-ear, with flexible gooseneck microphone.
    - a. RTS MH-300.
- K. Production Intercommunication Systems Wireless
  - 1. Wireless Intercom Station, two channel, with power supply, and wired two-channel interface.
    - a. Eartec XT Com-Center, with Audiocom wired interface.
  - 2. Wireless Intercom Headset Station, integral wireless station headset, single ear style, with rechargeable battery pack.
    - a. Eartec Comstar Single.
  - 3. Battery Charging Port, with four additional replacement batteries, with power supply as required.
    - a. Eartec Multi-Port Charger, with four (4) NIMH Batteries.
- L. Audio Accessories
  - 1. Type 1 Audio Adapter, factory or field fabricated using Switchcraft, Hosa, or Neutrik metal connectors and Horizon, Hosa, ProCo, Whirlwind, or Wireworks, black flexible cable.
    - a. 1/4-inch stereo phone plug to 3-pin XLR female connector, with cable 3 feet long.
    - b. Double phono RCA plugs to double phono RCA plugs, with cable 3 feet long.
    - c. Double phono RCA plugs to double phono RCA plugs, with cable 10 feet long.

d. 1/8-inch stereo phone plug to two mono 1/4-inch phone plugs, with cable 3 feet long.

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- e. 1/4-inch stereo phone plug to 1/4-inch stereo phone plug, 12 feet long.
- 2. Type 2 Audio Adapter, factory fabricated, metal shell, Switchcraft or equivalent.
  - a. 3-pin XLR female connector to 1/4-inch stereo phone plug.
  - b. 3-pin XLR male connector to 1/4-inch stereo phone plug.
  - c. 3-pin XLR female connector to 3-pin XLR female connector.
  - d. 3-pin XLR male connector to 3-pin XLR male connector.
  - e. 1/4-inch mono phone plug to RCA phono jack.
  - f. 1/4-inch stereo phone plug coupler.
  - g. 1/8-inch stereo phone plug coupler.
- Line Level Extension Cable, factory fabricated units using Neutrik connectors from Horizon, ProCo, Whirlwind, or Wireworks; black flexible cable.
  - a. Type 1, 1/8-inch stereo phone plug to dual RCA phono plugs, 6 feet.
  - b. Type 2, 1/8-inch stereo phone plug to 1/8-inch stereo phone plug, 6 feet.
- 4. Isolation Transformers, inline, Whirlwind or equivalent.
  - a. Type 1; ISOXL 3-pin XLR female to 3-pin XLR male.
  - b. Type 2; LITTLE IMP 3-pin XLR female to 1/4-inch stereo phone plug.
  - c. Type 3; Isopod 1/8" TRS female to 3-pin XLR Male.
- 5. Audio Adapter Pouch, black vinyl, with zipper.
  - a. Audio-Technica AT-BG2; or
  - b. Shure 95A2313; or
  - c. Approved equal.
- 6. Instrument Direct Box, with ground lift switch, nominal -30 dB pad.
  - a. Jensen Concert-1; or
  - b. ProCo DB1; or
  - c. Radial Engineering PRODI; or
  - d. Switchcraft SC800; or
  - e. Whirlwind Director.
- Low-level Direct Box, 1/8-inch stereo phone plug and two RCA phono unbalanced inputs, summed mono XLR output, with ground lift switch.
  - a. Jensen Media-1; or
  - b. Radial Engineering PROAV1; or
  - c. Switchcraft SC700; or
  - d. Whirlwind pcDI.
- 8. Stereo Headphones, dynamic dual headset, with coiled cord and 3-conductor phone plug.
  - a. Audio-Technica ATH-M50; or
  - b. Sennheiser HD 280 PRO; or
  - c. Sony MDR-7506.

#### 2.4 AUDIO-VISUAL SYSTEMS

- A. Video Recording Equipment
  - 1. Video Recorder, HDMI input, HDMI output, balanced analog audio input, simultaneous H.264 streaming and recording to internal or external solid state hard drive, with audio input level meters, front panel controls, with on-screen control interface, dual window processing.
    - Extron SMP 111, with RSU129 Rack Mount Kit.
  - 2. Type 1 Video Camera, high-definition pan/tilt/zoom, with infrared and color modes, with simultaneous HDMI, SDI, and IP streaming output, with network control, black in color, POE, with mounting hardware as necessary.
    - a. Sony SRG-X400.
    - b. Provide wall mount bracket as required.

3. Type 2 Video Camera, high-definition pan/tilt/zoom, with HDMI output, IR remote control, preset memory, RS-232, black in color, with mounting hardware as necessary.

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- a. Sony SRG-300HW.
- b. Provide wall mount bracket as required.

# B. Video Source Equipment

- 1. Blu-Ray Player, compatible with Blu-Ray, DVD, and Audio CD formats, with HDMI video outputs, stereo audio outputs, with title, chapter, and track search capabilities
  - a. Denon DN-500BD MKII; or
  - b. Approved equal.

# C. Video Processing

- 1. Video Matrix Switcher, with VGA, HDMI, and CAT6 inputs for extended digital video, analog audio inputs, with multiple simultaneous HDMI and CAT6 extended digital video outputs, analog audio outputs, with built-in control system compatible with touchpanels chosen, dual Ethernet control ports, with advanced HDCP compatibility and EDID management, rack mountable.
  - a. Crestron DMPS-3-4K-350-C, with Control Port Expansion Module C2N-IO as required.
- Video Presentation Switcher, with VGA, HDMI, and CAT6 inputs for extended digital video, analog audio inputs, with multiple simultaneous HDMI and CAT6 extended digital video outputs, analog audio outputs, with built-in control system compatible with touchpanels chosen, dual Ethernet control ports, with advanced HDCP compatibility and EDID management, rack mountable.
  - a. Crestron DMPS-3-4K-150-C, with Control Port Expansion Module C2N-IO as required.

#### D. Video Distribution

- Type 1 Video Transmitter, Decora wall mount, with HDMI input and VGA inputs, analog audio inputs, CAT6 extended digital video output, HDCP compliant, compatible with Video Matrix Switch.
  - a. Crestron DM-TX-200-C-2G-B-T, black in color.
- 2. Type 2 Video Transmitter, surface mounted, with HDMI input, analog audio inputs, CAT6 extended digital video output, HDCP compliant, compatible with Video Matrix Switch.
  - a. Crestron DM-TX-201-C.
- Type 1 Video Receiver, surface mounted, with HDMI output, with integral video scaling, with serial control output, CAT6 extended digital video input, HDCP compliant, compatible with Video Matrix Switch.
  - Crestron DM-RMC-4KZ-SCALER-C.
- Type 2 Video Receiver, surface mounted, with HDMI output, with serial control output, CAT6
  extended digital video input, HDCP compliant, compatible with Video Matrix Switch.
  - a. Crestron DM-RMC-4KZ-100-C.
- 5. HDMI-DM Distribution Amplifier, HDMI input with multiple CAT6 extended digital video output, HDMI pass-through output, HDCP compliant, same manufacturer as Video Matrix Switch.
  - a. Crestron DM-DA4-4K-C.
- HDMI Extender, transmitter/receiver pair, surface mounted, with HDMI input/output, digital video signal extension over CAT6 cable, HDCP compliant, with powering capability from either end.
  - a. Crestron HD-TX-101-C-E and HD-RX-101-C-E.
  - Power devices from receiver end.
- SDI to Analog Video converter; SDI input, composite video output, with mounting accessories as required.
  - a. Aja V2Analog.

### E. Video Displays & Monitors

Flat-Panel Display, nominal diagonal size as indicated on the drawings; native 1920x1080
resolution, LED backlit, 350 nit or greater, professional grade, rated for nominal 16/7 operation,
with multiple HDMI inputs, with serial port for control.

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- a. NEC Exx7Q; or
- b. Panasonic xxCQ1U: or
- c. Sharp PN-Yxx6; or
- d. Approved equal.
- e. Substitute "xx" for required diagonal panel size in inches.
- 2. Video Preview Monitor, maximum 21-inch diagonal, 1920x1080 native resolution, with HDMI input, with integral speakers and desk stand.
  - a. LG; or
  - b. NEC; or
  - c. Panasonic; or
  - d. Samsung
  - e. Sharp; or
  - f. Approved equal.

### F. Video Projectors

- 1. Type 1 Video Projector, 1-chip DLP, native 1920x1080 resolution, nominal 10,000 lumens, with laser light engine, with horizontal and vertical lens shift, with motorized zoom and focus control, HDCP complaint HDMI input, Ethernet control input, with interchangeable lens as required.
  - a. Christie Digital DHD1075-GS; with appropriate lens for throw distance/screen size, with Video Projector Mount and Vibration Isolator specified below.
- 2. Type 2 Video Projector, 1-chip DLP, native 1920x1080 resolution, nominal 6,500 lumens, with laser light engine, with motorized zoom and focus control, HDCP compliant HDMI input, serial control, with interchangeable zoom lens as required based on actual mounting distance.
  - Christie Digital DHD850-GS; with appropriate lens for throw distance/screen size, black in color, with Video Projector Mount and Vibration Isolator specified below.
- 3. Type 3 Video Projector, 1-chip DLP, native 1920x1080 resolution, nominal 4,800 lumens, with vertical lens shift capability, HDCP complaint HDMI input, serial or Ethernet control input, and with lens as required.
  - Vivatek DH976, with Video Projector Mount and Vibration Isolator specified below: or
  - b. Approved equal.

#### G. Projection Screens

- Type 1 Motorized Projection Screen, tensioned viewing surface; with nominal screen gain of 1.1,16:9 aspect ratio, nominal viewing area of 298 inches diagonal, black drop as required to place the viewing area at the height shown on the drawings, ceiling flush-mount enclosure, with low voltage control interface for contact closure as indicated on the drawings.
  - a. Da-lite Tensioned Advantage with LVC and HD Progressive 1.1 fabric; or
  - b. Draper Access V, with Low Voltage Control and TecVision XT1100X fabric.
  - c. Paint visible portion of screen enclosure/case flat black.
- 2. Type 2 Motorized Projection Screen, tensioned viewing surface, with nominal screen gain of 1.1, 16:9 aspect ratio, nominal viewing area of 298 inches diagonal, black drop as required to place the viewing area at the height shown on the drawings, surface mount enclosure, with low voltage control interface for contact closure as indicated on the drawings.
  - a. Da-lite Tensioned Professional Electrol with LVC and HD Progressive 1.1 fabric; or
  - b. Draper Paragon V, with Low Voltage Control and TecVision XT1100X fabric.
  - c. Paint screen enclosure/case flat black.

3. Type 3 Motorized Projection Screen, tensioned viewing surface, with nominal screen gain of 1.1, 16:9 aspect ratio, nominal viewing area of 160 inches diagonal, black drop as required to place the viewing area at the height shown on the drawings, surface mount enclosure, with low voltage control interface for contact closure as indicated on the drawings.

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- a. Da-Lite Tensioned Contour Electrol with LVC and HD Progressive 1.1 fabric; or
- b. Draper Premier, with Low Voltage Control and TecVision XT1100X fabric.

#### H. Video Accessories

- 1. Video Projector Mount, compatible with projectors chosen above, with screw-actuated adjustment of pitch, yaw, and roll, and custom adapter plate.
  - a. Chief RPM series;
  - b. Premier Mounts PDS series; or
  - c. Approved equal.
- Video Projector Vibration Isolator, compatible with projectors chosen above, with 1-1/2" NPT threaded connection, with mounting hardware as required.
  - a. Chief CMA345: or
  - b. Approved equal.
- 3. Flat-Panel Display Mount, with minimum 12 degrees of tilt, compatible with Flat-Panel Display chosen, with open design for junction box access, and with mounting accessories as required.
  - a. Chief Fusion Series; or
  - b. Approved equal.
- 4. Articulating Flat-Panel Display Mount, with minimum 12 degrees of tilt, with dual pivoting support arms for flexible horizontal viewing angle, compatible with Flat-Panel Display chosen, with open design for junction box access, and with mounting accessories as required.
  - a. Chief THINSTALL Dual Swing Series; or
  - b. Approved equal.

# 2.5 ETHERNET NETWORKS

# A. Network Equipment

- Ethernet Switch, fanless, managed 10/100/1000Base-T switch, with DSCP QoS support with four queues with strict priority queuing, with multicast filtering, number of ports as required.
  - a. HP Aruba 2530 Series with POE+; or
  - b. Netgear Smart Managed Pro GS728TPv2; or
  - c. Approved equal.
- Wireless Access Point, business grade, 802.11 b/g/n, minimum wireless speed of 100 Mbps, with web browser-based management interface, with Gigabit Ethernet port, built-in DHCP Server, and Power-over-Ethernet with power supply as required, with ceiling mounting hardware as required.
  - a. HP Aruba IAP-305; or
  - b. Netgear WAC510; or
  - c. Approved equal.
  - Verify sufficient coverage and range with WAP at designated location prior to final installation.
  - e. Select channel to not interfere with existing wireless network systems.
- 3. Ethernet Patch Panel, flat style, 24 modular ports, rack mount.
  - a. Panduit CPPL24WBLY with modules as required; or
  - b. CAT6A modules coded yellow.
  - c. Approved equal.
- 4. All UTP field circuits shall terminate to appropriately labeled punchdown terminations (patch panels or biscuit jacks) installed in the equipment racks. Use factory fabricated patch cables between all punchdown terminations and the switches.

### 2.6 AV CONTROL SYSTEMS

# A. Touchpanels

- 1. Type 1 Touchpanel, tabletop, nominal 7" diagonal touchscreen, PoE compatible,
  - a. Crestron TSW-770, black in color, with TSW-560-TTK mount.
- 2. Type 2 Touchpanel, wall-mount form factor, nominal 7" diagonal touchscreen, PoE compatible, a. Crestron TSW-770, black in color, with rack mount or wall-mounting hardware as required.

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3. Type 3 Touchpanel, wall-mount form factor, nominal 5" diagonal touchscreen, PoE compatible, a. Crestron TSW-570, black in color, with rack mount or wall-mounting hardware as required.

### B. Custom Programming

- 1. The Systems Contractor shall provide system programming incorporating all the below functions with input from the Owner and the Acoustical Consultant. As part of the final system tests and equalization services, the Acoustical Consultant will provide initial user interface touch panel screen layouts to the Systems Contractor for use in the system programming. The Systems Contractor shall furnish to the Owner a copy of the final system configuration files (including all source codes), the latest version of system programming software, and any required computer connection cables, for the Owner's use.
- 2. The Systems Contractor shall provide system programming incorporating all the below functions with input from the Owner and the Acoustical Consultant. As part of the final system tests and equalization services, the Acoustical Consultant will provide initial user interface touch panel screen layouts to the Systems Contractor for use in the system programming. The Systems Contractor shall furnish to the Owner a copy of the final system configuration files (including all source codes), the latest version of system programming software, and any required computer connection cables, for the Owner's use.
  - a. High School Auditorium, via installed Touchpanels:
    - 1) Power/standby control of all audio-visual equipment.
    - 2) Up/Down/Stop control of the Motorized Projection Screen.
    - 3) Input selection control of the Video Matrix Switcher.
    - 4) Input selection control of the Video Projector.
    - 5) Volume control of the Video Matrix Switcher audio.
    - 6) Preset recall of the Digital Audio Processor.
    - 7) Audio routing control through the Digital Audio Processor.
    - 8) Power sequencing control.
    - 9) Camera control.
    - 10) Video Recorder control.
    - 11) Power Control over Flat Panel Displays in Backstage Areas.
  - b. Middle School Gymnatorium, via installed Touchpanels, and iPad App:
    - 1) Power/standby control of all audio-visual equipment.
    - 2) Input selection control of the Video Switcher.
    - 3) Input selection control of the Video Projector.
    - 4) Volume control of the Video Switcher audio.
    - 5) Preset recall of the Digital Audio Processor.
    - 6) Audio routing control through the Digital Audio Processor.
    - 7) Power sequencing control.
  - c. High School Little Theatre, via installed Touchpanels, and iPad App:
    - 1) Power/standby control of all audio-visual equipment.
    - 2) Up and Down control of the Motorized Projection Screen.
    - 3) Input selection control of the Video Switcher.
    - 4) Input selection control of the Video Projector.
    - 5) Volume control of the Video Switcher audio.
    - 6) Preset recall of the Digital Audio Processor.
    - 7) Audio routing control through the Digital Audio Processor.
    - 8) Power sequencing control.
    - 9) Camera control.

10) Video Recorder control.

#### 2.7 CABLE AND CONNECTORS

#### A. Audio Cable

 Microphone, intercom, and line level audio circuits, installed within conduit and equipment rack, #22 AWG nominal, 2-conductor, stranded, aluminum polyester shielded, with separate drain wire.

- a. Belden 9451; or
- b. Canare L-2E5AT; or
- c. Covid CSW 0200 22; or
- d. Extron STP22; or
- e. Gepco IR222AL; or
- f. Liberty 22-2C-SH-GRY; or
- g. RapcoHorizon Mic2; or
- h. West Penn 452; or
- i. Windy City Wire 9221PSPVC-11S; or
- j. Approved equal.
- 2. Microphone and intercom extension cables, where cable is exposed on audio console; 2-conductor, #24 AWG nominal, stranded, braid shielded, with black flexible jacket.
  - a. Belden 8413; or
  - b. Canare L-2T2S; or
  - c. Carol Cable 743704; or
  - d. Gepco MP1022; or
  - e. Mogami W2791; or
  - f. RapcoHorizon Mic3; or
  - g. Approved equal.
- 3. Line-level audio circuits, where installed exposed in spaces which are used as return air plenums; #22 AWG, 2-conductor, stranded, aluminum polyester shielded.
  - a. Belden 9451P; or
  - b. Covid CSP 3200 22; or
  - c. Extron STP22P; or
  - d. Liberty 22-2C-PSH-WHT; or
  - e. Gepco IP222AL; or
  - f. West Penn 25291; or
  - g. Windy City Wire 994320-11S; or
  - h. Approved equal.
- Loudspeaker circuits installed in conduit, equipment rack, or exposed interior benign environment (except return air plenums); stranded, unshielded, jacketed. Cable color to approximately match ceiling color in exposed locations.
  - a. #18 AWG, 2-conductors
    - 1) Belden 9740; or
    - 2) Covid CVA 0200 18; or
    - 3) Extron SPK18; or
    - 4) Liberty 18-2C-GRY; or
    - 5) Gepco IR182BA7; or
    - 6) West Penn 224; or
    - 7) Windy City Wire 427100-11S; or
    - 8) Approved equal.
  - b. #16 AWG, 2-conductors
    - 1) Belden 8471; or
    - 2) Covid CVA 0200 16; or
    - 3) Extron SPK16; or
    - 4) Liberty 16-2C-GRY; or
    - 5) Gepco IR162BA19; or
    - 6) West Penn 225; or
    - 7) Windy City Wire 8160219-02S; or

- 8) Approved equal.
- c. #14 AWG, 2-conductors
  - 1) Belden 8473; or
  - 2) Covid CVA 0200 14; or
  - 3) Extron SPK14; or
  - 4) Liberty 14-2C-GRY; or
  - 5) Gepco IR142BA19; or
  - 6) West Penn 226; or
  - 7) Windy City Wire U029100-11S; or
  - 8) Approved equal.
- d. #12 AWG, 2-conductors
  - 1) Belden 8477; or
  - 2) Covid CVA 0200 12; or
  - 3) Liberty 12-2C-GRY; or
  - 4) Gepco IR122BA19; or
  - 5) West Penn 227; or
  - 6) Windy City Wire U023100-11S; or
  - 7) Approved equal.
- 5. Loudspeaker circuits, where installed exposed above ceilings in spaces which are used as return air plenums; 2-conductor, stranded, unshielded.
  - a. #18 AWG
    - 1) Belden 6300UE; or
    - 2) Covid CVA 3200 18; or
    - 3) Extron SPK18P; or
    - 4) Gepco IP182BA7; or
    - 5) West Penn 25224; or
    - 6) Windy City Wire 992360-11S; or
    - 7) Approved equal.
  - b. #16 AWG
    - 1) Belden 6200UE; or
    - 2) Covid CVA 3200 16; or
    - 3) Extron SPK16P; or
    - 4) Gepco IP162BA19; or
    - 5) West Penn 25225; or
    - 6) Windy City Wire 991360-S; or
    - 7) Approved equal.
  - c. #14 AWG
    - 1) Belden 6100UE; or
    - 2) Covid CVA 3200 14; or
    - 3) Extron SPK14P; or
    - 4) Gepco IP142BA19; or
    - 5) West Penn 25226; or
    - 6) Windy City Wire 997960-S; or
    - 7) Approved equal.
  - d. #12 AWG, 2-conductors
    - 1) Belden 6000UE; or
    - 2) Approved equal.
    - 10 AWG, 2-conductors
      - 1) Belden 6T00UE; or
      - 2) Approved equal.
- 6. RF hearing assistance transmitter antenna cable, when antenna is remotely mounted, if length is less than 50 feet, and UHF wireless microphone receiver antenna cable when antenna is remotely mounted, if length is less than 25 feet, RG58/U 50ohm coaxial.
  - a. Belden 8219; or
  - b. Liberty RG58-CMR-BLK; or
  - c. West Penn 813; or
  - d. Windy City Wire 9658111-S; or
  - e. Approved equal.

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- 7. RF hearing assistance transmitter antenna cable when antenna is remotely mounted and length is greater than 50 feet, and UHF wireless microphone receiver antenna cable when antenna is remotely mounted and length is greater than 25 feet, polyfoam type RG8/U 50 ohm coaxial.
  - a. Belden 8214; or
  - b. Gepco V5010; or
  - c. West Penn 810; or
  - d. Approved equal.

#### B. Video Cable

- 1. Category 6 STP Cable (DM), shielded twisted pair, for digital video transport (DTP), plenum rated, where indicated on the drawings.
  - a. Crestron DM-CBL-ULTRA-P; or
  - b. Approved equal.
- 2. RGBHV Video Cable with Audio, for use in lecterns and equipment racks, factory made, male-to-male 15-pin HD molded connectors, with integral 3.5mm stereo audio plugs.
  - a. Comprehensive MVGA15P-P-XXHR/A series; or
  - b. Covid CVD 0511 AUDIO series: or
  - c. Extron MVGA-A M-M series; or
  - d. Liberty Wire E-MVGAMAM-M series; or
  - e. Approved equal.
- HDMI Video Cable, for use in lecterns and equipment racks, factory-made, male-to-male HDMI molded connectors.
  - Comprehensive HD-HD-XXPROBLK series; or
  - b. Covid HD24 series; or
  - c. Extron HDMI Ultra series: or
  - d. Liberty Wire E-HDM-M series; or
  - e. Planet Waves HDMI series; or
  - f. West Penn CN-40HDMI series; or
  - g. Approved equal.
- 4. USB-C adapter, factory-made, USB-C male-to-HDMI female molded connectors.
  - a. Extron USBC-HD; or
  - b. Liberty AV AR-UCM-HDF; or
  - c. Approved equal.
- Mini DisplayPort Adapter, factory-made, mini DisplayPort-to-female HDMI, molded connectors, active.
  - a. Extron MDP-HDMIF/6; or
  - b. Liberty AV AR-MDPM-HDF; or
  - c. Approved equal.

#### C. Control Cable

- Control circuits, #20 AWG minimum, stranded, unshielded, vinyl jacketed with number of conductors as required. Each control cable shall have at least two spare conductors.
  - a. 15-conductor
    - 1) Belden 9458; or
    - 2) Carol Cable C6111A; or
    - 3) West Penn 266.
  - b. 12-conductor
    - 1) Belden 9457; or
    - 2) Carol Cable C6111A; or
    - 3) West Penn 265.
  - c. 9-conductor
    - 1) Belden 9455; or
    - 2) Carol Cable C6109A; or
    - 3) West Penn 264.
  - d. 7-conductor
    - 1) Belden 9439; or

- 2) Carol Cable C6121A; or
- 3) West Penn 263.
- 2. Control System Cable, twisted pair, compatible with control system equipment chosen

- a. Belden 1502P: or
- b. Covid COM 1400: or
- c. Crestron Crestnet-NP; or
- d. Extron CTL: or
- e. Gepco 18/22CRT; or
- f. Liberty AXLINK; or
- g. West Penn 77350.

# D. Data Communication Cable

- Category 6 UTP Cable, unshielded twisted pair, where installed in conduit or exposed interior benign environment (except return air plenums) for digital audio, video, and data network connections.
  - a. Belden 3632. or MediaTwist 1872A: or
  - b. Berk-Tek LANmark 2000 CAT6 or LANmark 1000 CAT6: or
  - c. Carol Cable CR6; or
  - d. CommScope 6ECMR.
  - e. Windy City Wire SmartWire 7756 Series; or
  - f. Approved equal.
  - g. All cable shall be yellow in color.
  - h. Factory-made and certified Category 6 cable shall be used for all UTP patch cables installed within equipment racks. No field fabricated patch cables shall be used.
- Category 6 UTP Cable, unshielded twisted pair, where installed return air plenums, for digital audio, video, and data network connections.
  - Belden 3633, or MediaTwist 1874A; or
  - b. Berk-Tek LANmark 2000 CAT6 or LANmark 1000 CAT6; or
  - c. Carol Cable CP6; or
  - d. CommScope 6ECMP.
  - e. Windy City Wire SmartWire 5566 Series; or
  - f. Approved equal.
  - g. All cable shall be yellow in color.
  - h. Factory-made and certified Category 6 cable shall be used for all UTP patch cables installed within equipment racks. No field-fabricated patch cables shall be used.

#### E. Audio Connectors

- 1. XLR cable connectors, metal shell with strain relief, with solder cups.
  - a. Neutrik X series; or
  - b. Switchcraft AAA Series.
- 2. XLR receptacles, metal, with solder cups. Panel mounting receptacles shall be square in shape, except as noted.
  - a. Neutrik DLX series; or
  - b. Switchcraft E Series.
- 3. Phone cable connectors, 2- or 3-conductor as required, metal body.
  - a. Canare F series; or
  - b. Neutrik PX series; or
  - c. Rean; or
  - d. Switchcraft.
- 4. Phono RCA connectors, cable mounting, metal shell, with solder cups.
  - a. Canare; or
  - b. Rean; or
  - c. Switchcraft.

- 5. Phono RCA receptacles, metal shell, insulated from panel.
  - a. Canare; or
  - b. Rean; or
  - c. Switchcraft.
- Loudspeaker Connectors, number of conductors as required, twist-lock action, panel or cable mounting.

- a. Neutrik SpeakON series; or
- b. Switchcraft HPC series.

#### F. Video Connectors

- RCA Video Connector, 75 ohm, compression fit, crimp type connectors acceptable only in factory assemblies.
  - a. Extron Compression Connectors; or
  - b. Liberty ConnecTec; or
  - c. Approved equal.
- 2. BNC Video Connector, 75 ohm, compression fit, crimp type connectors acceptable only in factory assemblies.
  - a. Extron Compression Connectors; or
  - b. Liberty ConnecTec; or
  - c. Approved equal.
- 3. RJ-45 Video Connector, shielded.
  - a. Crestron DM-CONN; or
  - b. Extron XTP DTP 24 Plug; or
  - c. Approved equal for alternate video switching systems.

### G. Miscellaneous Connectors

- 1. EtherCON Jack, CAT5e rated, panel mount, pass through RJ45 jacks, field terminable, with latch lock, square in shape, compatible with EtherCON Connector below.
  - a. Neutrik NE8FDP-B.
- EtherCON Connector, CAT5e rated, cable mount, field terminable, with latch lock, compatible with EtherCON Jack above.
  - Neutrik NE8MC-B.
- 3. AC Power Connector, twist-lock action, 20A, panel or cable mounting.
  - a. Neutrik powerCON series.

# 2.8 EQUIPMENT RACKS, CABINETS, AND ACCESSORIES

# A. Equipment Racks and Cabinets

- 1. Sound Console Casework, customized as noted and detailed on the drawings.
  - a. Olympic Case Company.
- 2. Floorstanding Equipment Rack, floor-mounted swing-out rack, with locking vented front door.
  - a. Chief Raxxess PWRR series; or
  - b. Lowell LWBR series: or
  - c. Middle Atlantic SR series.
  - d. Approved equal.
- 3. Wall Mounted Equipment Rack, wall-mounted swing-out rack, with top knockouts for exhaust fans, with locking vented front door.
  - a. Atlas Sound WMA series; or
  - b. Chief Raxxess NW1 series; or
  - c. Lowell LWR Series; or
  - d. Middle Atlantic DWR series; or

- e. Approved equal.
- 4. Portable Equipment Rack, with locking casters, with two (2) side-by-side equipment compartments, nominal 14 RU each, with custom foam upper surface fit to Type 2 Digital Mixing Console, with top, front, and back removable panels or doors, with carry handles, with cable holder hooks on interior of front and back panels, with cable interior grommet between mixer surface and equipment compartments, steel-riveted plywood construction, ATA-rated.

- a. Anvil Cases: or
- b. Olympic Case; or
- c. Viking Cases; or
- d. Approved equal.
- Millwork Equipment Rack, millwork-mounted pull-out/rotating rack, with heavy duty full extension slides.
  - a. Middle Atlantic SRSR series; or
  - b. Approved equal.
- 6. Casework Fan, with rigid guard, 120V operation; provide any additional hardware required to mount one fan in the control booth millwork as shown on the drawings.
  - a. Middle Atlantic CAB-COOL.
- Equipment Rack Exhaust Fan, with rigid screen guard, 120V operation; with mounting hardware and power supply as required to mount fans in the top of Existing Main Equipment Rack with rubber grommets or other vibration isolation mounts.
  - a. Lowell FW Series; or
  - b. Middle Atlantic QFAN series; or
  - c. Approved equal.
- 8. All racks shall be keyed alike if possible. Furnish three sets of rack keys to be turned over to the Owner.
- Rack-panel mounting screws shall be as short as practical for equipment to be mounted (Middle Atlantic HPQ or similar).
- 10. Any rack front panel details shown on the drawings are for concept only. Shop drawings are required indicating the exact equipment to be furnished. The exact size (larger or taller racks) and quantity of equipment racks is to be determined by the Systems Contractor based upon the exact equipment to be furnished. Verify all audio equipment room dimensions and conditions.
- 11. Except as noted on the drawings, include a 1-RU panel at the top of one equipment rack engraved with the logo and contact information of the AV Consultant and the Systems Contractor as shown on the drawings.
- 12. Except as noted on the drawings, allow 1¾-inch blank panel space at the top of each rack, minimum 3½-inch vent panel space at the bottom of each rack, and ventilation space (vent panels) between all equipment. Fill any empty rack space that is not near equipment with blank panels. Except as noted on the drawings or for mounting switches or LED indicators, blank panels shall not be used between equipment.
- 13. Where applicable, install a brush grommet panel directly above equipment, such as an Ethernet Switch, to allow cables to pass from the back of the equipment rack to the front panel of equipment (Middle Atlantic BR1 or similar).
- 14. Where applicable, mount small components behind vent panels on sub-chassis shelves or component panels (BUD CB series chassis or similar). Mount components with connections visible from rear of equipment rack using barrier strip terminal blocks for connections.
- 15. The following guidelines concerning equipment rack layouts shall be followed unless otherwise noted on the drawings. Submit shop drawings illustrating proposed equipment rack layouts, indicating equipment labels.

Equipment Rack Layouts shall be grouped according to function; audio, video, and control.

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- b. Heavy equipment such as audio amplifiers and large video matrix switches shall be placed near the bottom of equipment racks.
- c. Control equipment shall be located near the top of equipment racks.
- d. Equipment that requires operator interface (e.g. sound reinforcement system AC power pushbuttons, sound reinforcement system mode select switches, power amplifier monitor/test system, monitor loudspeaker, computer monitor and keyboard, patch panels, audio mixers, program source and/or audio-visual equipment) shall be installed in one or adjacent equipment racks. Operator interface equipment shall also be installed at heights that permit ease of operation and viewing. Such equipment shall be placed in equipment rack(s) closest to the audio equipment room entrance.
- 16. Furnish small magnetic portable work light with LED bulb and gooseneck in each equipment rack.
  - a. Middle Atlantic LT-GN-WL; or
  - b. Approved equal.
- 17. Equipment Rack Storage Drawer, size as indicated on the rack layout drawings, steel, with key lock, black to match equipment racks
  - a. BGW SRD Series with keylock; or
  - b. Chief Raxxess SDR Series with keylock; or.
  - c. Lowell UDP Series: or
  - d. Middle Atlantic D Series with keylock; or
  - e. Furnish three sets of drawer keys to be turned over to the Owner.
  - f. Install drawers in the equipment racks as shown on the rack layout drawings.
- 18. Sliding Shelf, 1RU, steel, ball bearing slides, minimum 50-lbs capacity, black to match equipment racks
  - a. Atlas Sound VTD1-16; or
  - b. Lowell RSD-116; or
  - c. Chief Raxxess SLS-1.
  - d. Install one shelf in the Floor Standing Equipment Racks approximately 40 inches above the floor and as shown on the rack layout drawings.
- Cable Access Slot Grommet, installed in custom control station console as shown on the drawings or described in these specifications
  - a. Doug Mockett & Company (213-318-2491) CP-2 (13/4-inches by 12 inches); or
  - b. Approved equal.

#### B. Hardware and Accessories

- 1. Tabletop Box, black in color, surface mount form factor, compatible with decora-style plates and equipment, number of gangs as indicated on the drawings.
  - Extron SMB 110 Series.
- 2. Type 1 Barrier Strip, for termination of audio circuits in equipment rack.
  - a. TRW-CINCH 140 series; or approved equal.
- 3. Type 2 Barrier Strip, high-density, for termination of loudspeaker circuit in junction box.
  - a. Phoenix Contact High-Density UK series; or approved equal.
- 4. Spade Tongue Terminal, brazed seam, uninsulated type only.

#### 2.9 AC POWER

A. Furnish modular vertical power strip in each Floor Standing Equipment Rack with number of circuits and corresponding color-coded always-on and sequenced outlets as required. Each rack shall have at least four spare always-on receptacles. Furnish additional power distribution equipment as required for all equipment racks.

- B. Furnish an Uninterruptible Power Supply for the following equipment.
  - 1. Digital Audio Processors.
  - 2. Digital Mixing Consoles.
  - 3. Video Processors.
  - 4. Ethernet Switches.
  - 5. Control Systems and accessories.
- C. Furnish power conditioning and surge suppression for all major video, audio, and network equipment not served by a UPS.
- D. Label all uninterruptible power supply AC power receptacles with a label which reads "UPS".
- E. Provide sequencing control of AC power for all the audio-visual system components (excluding projectors and flat-panel displays) not connected to a UPS from switches located at the equipment rack in the sound booth. Connect the system components to the sequencers such that equipment turns on in the following order:
  - 1. Audio and Video Source Equipment.
  - 2. Audio Mixers, Video Switchers, and other miscellaneous equipment.
  - 3. Digital Signal Processors.
  - 4. Audio Amplifiers.
  - 5. Adjust the sequencing time so that all equipment startup cycles are complete before the next AC power circuit is energized.
  - 6. Power off sequencing shall occur in reverse order.
- F. Connect power amplifiers to 120V 20A AC power circuits so that maximum rated input power can be delivered to each power amplifier without exceeding the power handling capacity of any AC power circuit.
- G. Any power distribution details shown on the drawings are for concept only. Shop drawings are required indicating the exact equipment to be furnished by the Systems Contractor.
- H. AC Power Equipment
  - 1. Power Sequencer, minimum of 6 sequencing steps, rack mount, compatible with sequenced modules chosen, with contact closure control outputs as required, with remote control inputs.
    - a. Lowell SCS8R-ASM; or
    - b. Middle Atlantic USC-6R.
  - 2. Modular Vertical Power Strip, single or multiple 20A circuits, with modules as required.
    - Atlas Sound ECM Series; or
    - b. Lowell PowerStac Series; or
    - c. Middle Atlantic MPR Series.
  - 3. Power Module, 20A, rack mount, with unswitched front panel convenience outlet, with surge suppression and power conditioning, with remote trigger input.
    - a. Atlas Sound AP-S20RT; or
    - b. Furman PS-PRO Series II: or
    - c. Lowell ACSPR-RPC1-2009; or
    - d. Middle Atlantic RLNK-SW620R; or
    - e. SurgeX SX-1120-RT.
  - Power Conditioner, 15A, rack-mount, with unswitched front panel convenience outlet, with surge suppression and power conditioning, with front mounted lights.
    - a. Atlas Sound AP-C15D; or
    - b. Furman PL-8 C; or
    - c. Juice Goose RP 200; or
    - d. Approved equal.

 Type 1 Uninterruptible Power Supply, sized to provide a minimum of 10 minutes run time for connected load, line-interactive, rack mount as required.

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- a. APC Smart-UPS Series; or
- b. Middle Atlantic; or
- c. Tripp Lite SmartPro Series; or
- d. SuraeX.
- Type 2 Uninterruptible Power Supply, 1RU, 500VA, depth not to exceed 12", line-interactive, rack mount as required.
  - a. APC Smart-UPS SCL500RM1UC; or
  - b. Middle Atlantic UPS-S500R; or
  - c. TrippLite SmartPro SMART500RT1U; or
  - d. Approved equal.
- Type 1 AC Power Extension Cable, with Neutrik powerCON connector at one end and NEMA 5-15P on the other, 15A, 25 feet long.
  - a. RapcoHorizon PWRCON series; or
  - b. Whirlwind NAC3-515P-25: or
  - c. Approved equal.
- 8. Type 2 AC Power Extension Cable, NEMA 5-15R to NEMA 5-15P, 15A, 25-foot long, black in color.
  - a. Hosa PWX series; or
  - b. ProCo E-Cord series; or
  - c. Approved equal.

#### PART 3 - EXECUTION

#### 3.1 GENERAL

- A. Installation and connection of audio-visual system equipment, materials, cable, and cable fittings shall be performed only by experienced audio-visual system installers. Each installer shall have access to a complete copy of the specifications at the job site.
- B. All materials and equipment are to be installed in accordance with all applicable standards of the National Electrical Code, the Electrical Code of the governing local municipality, all other applicable local codes, and all safety codes and ordinances.

#### 3.2 INSTALLATION

- A. Equipment rack sheet metal ground shall only be via the insulated ground cable(s) noted on the drawings. Racks shall not otherwise connect to building steel or electrical conduit which is grounded to the building electrical system. Adjacent equipment racks shall be connected by an insulated #6 AWG ground cable which is bonded to each equipment rack.
- B. All adjacent equipment racks shall be ganged together if applicable.
- C. All equipment racks shall be restrained and seismic rated as required by local code.
- D. Racks shall be thoroughly cleaned prior to turn over to the Owner.
- E. Rear rack rails shall be installed as required to support heavy or deep equipment.
- F. Lacing bars shall be installed to assist in organizing cable. Lacing bars shall not interfere with access to any terminations or connectors.

G. Cable within equipment racks shall be separated and routed in groups according to function: microphone circuits, intercom circuits, line level audio circuits, loudspeaker circuits, video circuits, control circuits, and 120 volt AC power circuits. Cable shall be neatly arranged, but tight bundling which makes modifications difficult shall be avoided. Plastic or Velcro cable ties shall be used for grouping of circuits. Unless otherwise noted on the drawings, all cables shall enter the equipment racks in one of the following manners:

- 1. Through conduit landed directly to the equipment rack.
- Through rack knock-outs on the top or back of the equipment rack with plastic or rubber grommets.
- Directly into the back of wall mounted equipment racks. The rack shall be installed over flush
  mounted junction boxes allowing all cables to pass directly from the junction box into the back of
  the rack.
- 4. Directly into an open side of floor standing equipment racks without side panels.
- 5. Directly into the bottom of floor standing equipment racks through access floor holes or conduit in the floor. The rack shall be installed above the conduit stub or hole allowing all cables to pass directly into the bottom of the rack. All conduit stubs or access floor holes shall also have a plastic or rubber bushing to protect the cables.
- H. Cable in conduit or other raceway shall be separated according to function: microphone circuits and intercom circuits, line level audio circuits, loudspeaker circuits, video circuits, control circuits, and 120 volt AC power circuits. Control circuits may be installed in line level audio conduit where separate control conduit is not indicated on the drawings. Control circuits for loudspeaker volume control priority override relays may be installed with loudspeaker circuits. Intercom circuits may be installed in line level audio conduit where microphone level conduit is not installed.
- Any grouping of cables left exposed in a room, such as those associated with a movable equipment rack, shall be bundled together into a single bunch using black, flexible and expandable sleeving such as Techflex Flexo Wrap or equivalent.
- J. At all connection points for all types of cable, self-laminating or heat shrink printed labels of appropriate letters and/or numbers shall be installed near each termination point and be clearly visible. The labels shall be consistent on both ends of the same cable. These cable numbers and/or letters shall be given to the AV Consultant for inclusion on the one-line diagrams of record.
- K. Care shall be exercised in wiring so as not to damage cables and equipment. Circuits shall not be spliced except as approved on shop drawings.
- L. Where conduit connects between equipment rack locations, or between sound console and equipment racks, at least two spare circuits of each type in the conduit (microphone level, line level, control, or data communications) shall be installed in each conduit used. All spare circuit conductors shall be connected to chassis ground at the downstream (e.g. power amplifier) end of the cable.
- M. All field cabling shall have service loops to allow for at least two (2) re-terminations.
- N. All crimp type connectors, including insulated butt connectors for inline loudspeaker circuit connections, shall be crimped with a Thomas & Betts model WT111M tool. Spade tongue terminals shall be crimped with the notch on the barrel opposite the seam.
- O. Unless otherwise noted, all audio circuits shall be two wire with shield, with the red or white wire used for the "high" side of the line and connected to pin 2 of microphone connectors or to the "tip" of patch panel and other phone jacks. The black wire shall be used for the "low" side of the line and shall connect to pin 3 of microphone connectors or to the "ring" of phone jacks. The shield (drain) wire shall connect to pin 1 of microphone connectors or to the sleeve of phone jacks.

P. All audio circuits (red or white and black conductors) shall be ungrounded except as provided by single ended amplifier inputs and where grounding of unbalanced circuits is directed during system tests. Shields for line level audio circuits shall be grounded to rack sheet metal at each cable termination. Where line level audio circuits connect to audio transformers, shields shall connect to transformer electrostatic shields and case grounds. At each cable termination shield or shield drain, wire length shall be approximately equal to the length of the insulated conductors. Shield drain wires shall be sheathed in green PVC sleeving. Circuit shields shall not otherwise connect to each other nor ground to electrical conduit at wall boxes, etc. Microphone circuit shields shall be grounded only at mixer inputs.

- Q. Where resistors are indicated to terminate an audio circuit, install each resistor at the end of the line at the input to the following transformer or amplifier.
- R. All wire joints and connections in the audio system shall be made with rosin core solder and a small soldering iron; or with approved mechanical connectors. Soldering shall be neat and shall not exhibit "cold" solder joints. Connections to screw type terminals shall be made with mechanically connected, uninsulated, spade type lugs selected for the particular wire size in use.
- S. Connections made with miniature screw actuated, phoenix type connectors shall be made by stripping approximately ¼-inch of insulation from stranded conductor, inserting the untinned wire into the pressure terminal, and tightening the terminal screw using a small screwdriver which securely fits the screw head.
- T. High impedance unbalanced audio circuits shall not extend more than 20 feet.
- U. Loudspeaker connections within loudspeaker enclosures (and at other in-line locations where necessary) shall be made with crimped insulated butt connectors. Wire nuts and/or electrical tape will not be allowed.
- V. Loudspeakers shall be installed so there are no obstructions to the loudspeaker coverage pattern. Loudspeakers shall be connected "in phase" and proper impedance matching shall be maintained between amplifiers and loudspeakers.
- W. Tie-wrap and secure all loudspeaker line matching transformer leads and loudspeaker cable away from loudspeakers to prevent "rattling" when loudspeakers are energized.
- X. All loudspeakers, projectors, and other equipment suspended overhead shall be installed with wire rope safety ties connected to the building structure as shown and approved on the submitted shop drawings.
- Y. All analog video circuits, except as indicated otherwise, shall be shielded 75-ohm coaxial cable. Shields for video circuits shall be grounded only at the connected equipment and shall not ground at electrical conduit at wall boxes, etc.
- Z. All analog video connections shall be made with a specified BNC type connector. The BNC plug center pin shall be crimped with a Trompeter 010-0055 or Buchanan 613439 crimp tool.
- AA. No field terminated digital video connectors will be permitted unless otherwise noted in these specifications or drawings (HDMI, DVI, DisplayPort).
- BB. No soldering of video connectors will be permitted.
- CC. All non-locking video connectors shall be secured to the installed equipment such that the connectors cannot be easily disturbed or disconnected.
- DD. All HDMI, DisplayPort and DVI cables shall not exceed 25 feet in length without the installation of an active HDMI or DVI Cable Equalizer, with the exception of cables terminating or originating at equipment which features integral cable equalization. These cables shall be limited in length as indicated by the equipment manufacturer's recommendations.

#### 3.3 NAMEPLATES AND CONNECTION PLATES

A. All nameplate nomenclature shall be reviewed by the Architect and AV Consultant prior to panel or plate engraving; or Metal-photo processing.

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- B. All control panels, all patch panels, and all controls, jacks, microphone receptacles, switches, etc. (except for controls, etc., on audio equipment which are properly identified by the manufacturer) shall be suitably identified by metal or plastic engraved labels or Metal-photo labels. Engraved panels or plates shall be filled with a suitable contrasting color as approved on shop drawings.
- C. Room numbers shown on drawings and indicated on control panel details, patch panels, etc., are architectural room numbers for identification only during the construction phase. Fabricated labels shall reflect the room numbers to be later assigned by the Owner and/or as designated by the Architect.
- D. All installed and portable equipment shall be identified on front and rear panels by nameplate labels as indicated on the drawings and approved in the shop drawings, or as directed on-site by the Owner, Architect, and/or AV Consultant.
- E. Unless noted otherwise, standard gang connection panels shall be Sierra stainless steel wall plates, or color as selected by Architect.
- F. Unless noted otherwise, NEMA size connection panels shall be clear anodized brushed aluminum, or color as selected by Architect.
  - 1. 12-inches or smaller: 1/8-inch thick.
  - 2. Larger than 12-inches: 3/16-inch thick.
  - 3. Field-verify mounting conditions for each box. Flush mounted plates shall have a minimum 1/2-inch flange on all sides.
- G. All connection panels shall have countersunk screw holes and Phillips countersunk or oval-head screws finished to match the panel. All lettering shall be engraved and filled directly on the panel. Regardless of panel color, all panel mounted connectors should match the finish color of the panel wherever possible.
- H. All standard sized rack panels used to mount controls or connectors shall have formed edges, with all lettering engraved and filled directly on the panel.
- I. Verify all dimensions and spacing for panel-mounted components and engraving. Unless noted otherwise, engraved text shall be 3/16-inch high. Spacing between panel-mounted components shall be sufficient to enable front cable connections to be made easily.
- J. Connection panel layouts shall be according to function with all connections of one type located together. Labels shall be located above the corresponding connector or component. All connection panels and nameplates on the project shall be uniform in layout and nomenclature. Microphone multipin connectors shall be placed at the bottom of connection panels.
- K. No wall or floor mounted connection panels shall carry the logo of the contractor's firm.
- L. All nameplates and patch panel labels shall reflect Alternates accepted or rejected.
- M. Submit shop drawings for each connection panel with all connections, devices, labels, colors and sized clearly indicated.

# 3.4 PAINTING

A. Paint all exposed hardware, loudspeakers, baffles, wall plates, and any other item furnished under this contract not specifically noted otherwise on the drawings, color and method as selected and approved by the Architect.

B. Any custom painting of loudspeakers shall be done at the factory or other controlled environment using spray or powder-coat process without damage to components or blocking grille openings. Except as otherwise noted herein, painting with brush or roller is not acceptable. Verify all finishes with Architect and indicate on shop drawings submitted for review.

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#### 3.5 PRELIMINARY SYSTEM TESTS AND ADJUSTMENTS

- A. The Systems Contractor shall be responsible for preliminary field tests and adjustments of the completed audio-visual systems prior to the time reserved for system equalization. Circuits containing equalizers and resistors to be installed later may be strapped across to permit preliminary system testing. Such tests shall be made in conformance with the recommendations of the equipment manufacturer and AV Consultant.
- B. Preliminary system tests and adjustments shall include but not be limited to the following:
  - Verification that all loudspeakers are properly installed, tapped, and circuited as indicated on the drawings.
  - 2. Measurement of each loudspeaker line impedance to verify that no short/open circuits exist (including shorts to conduit/ground) and proper/expected loads are connected.
  - 3. Testing of each loudspeaker to ascertain that none of the units "squawk" or "rattle" when energized with one-third octave bands of pink noise at a nominal input power of two watts.
  - 4. Phasing of all microphones, microphone cables, and microphone inputs.
  - 5. Alignment, convergence and source input settings for each video projector and flat panel display.
  - Verification that each display meets the following criteria: a minimum resolution compatibility of 1920x1080 @ 60Hz, HDCP compliance where required, appropriate color reproduction, and confirmation that the number of malfunctioning pixels does not exceed the manufacturer's tolerance.
  - 7. Equalization of any analog video system components will involve setting video amplifiers so the video blanking level is at 1.0 volt peak-to-peak throughout the video system.
  - 8. Qualification of all Category-type field cabling.
  - 9. Functional tests of all individual audio and video equipment
  - 10. Functional tests of all control equipment and custom user interfaces. All control communication shall be verified and tested to perform the functions listed in these specifications and detailed in the custom touchpanel interface.
  - 11. Setup of all VOIP and Videoconference Systems on the Owner's network.
  - 12. Setup of all dedicated networks, including assignment of appropriate IP addresses for all equipment, setup of any DHCP servers and wireless access points, and switch configuration.
  - 13. Unbox, assemble, test, and all store portable equipment where appropriate.
  - 14. Installation of the latest product firmware and software.
  - 15. Functional tests of the installed system(s) as required to assure that the system(s) are ready for final tests and adjustments.
- C. The Systems Contractor shall be responsible for notifying the AV Consultant of any unresolved malfunctions encountered during preliminary system tests and of any equipment not at the site sufficiently prior to system equalization.
- D. Most of the final tests and adjustments will be performed concurrently with system equalization. However, if troubles are encountered, preliminary tests and adjustments shall continue until the system operates in a satisfactory manner.

# 3.6 FINAL SYSTEM TESTS AND EQUALIZATION (COMMISSIONING SERVICES)

#### A. Sound Systems

1. The process is termed system "tuning" or "equalization" and is accomplished after the completion of the system installation, but prior to any use of the audio-visual system. At this time, it is possible to measure the acoustic response of the system and to determine the feedback frequencies that actually exist. The broadband and narrowband filters are then tuned to these specific conditions.

 To achieve proper acoustic levels and aiming, select loudspeaker transformers may require retapping and select loudspeakers or loudspeaker clusters may require reorientation as directed by the AV Consultant.

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- 3. After the sound reinforcement system(s) has received its preliminary testing and is found to be operating correctly, without hum, distortion, oscillations, radio frequency interference, etc., all equipment is fully functioning, and all circuits and connections have been examined, the system shall be commissioned and configured, including, but not limited to, the following adjustments:
  - a. Adjustment of all gain controls to proper levels.
  - b. Equalization of the loudspeaker systems using broadband graphic or parametric equalizers, delays, and compressors/limiters.
  - Equalization of each installed wired and wireless microphone using broadband graphic or parametric equalizers and any applicable dynamics.
  - d. Proper setup of any automatic mixer processing.
  - Proper setup of all wireless microphone systems, including coordination of all wireless microphone frequencies.
  - f. Configuration of the mixing console with input from the Owner.
  - g. Configuration of narrowband equalizers to minimize microphone feedback in the system.
  - h. Proper setup of any acoustic echo cancellation processing.

# B. Audio-Visual Systems

- 1. After the audio-visual system(s) has received its preliminary testing and is found to be operating correctly, all video displays are fully operational, all equipment is functioning properly, and all circuits and connections have been examined, the system shall be commissioned and configured, including, but not limited to, the following adjustments:
  - a. Configuration of all EDID and HDCP settings for each source and display.
  - b. Proper setup of all video scalers.
  - c. Proper setup of each display for color and brightness.
  - d. Adjustment of camera image settings and configuration of any pan/tilt/zoom presets.
  - e. Configuration of videoconferencing systems with input from the Owner.
  - f. Configuration of recording systems.
  - g. Configuration of streaming video systems.

# C. Networking and Control Systems

- After the networking and control system(s) has received its preliminary testing and is found to be operating correctly, all control interfaces are fully operational, all equipment is functioning properly, and all circuits and connections have been examined, the system shall be commissioned and configured, including, but not limited to, the following adjustments:
  - Verification of all specified control operations.
  - b. Verification and adjustment of all user control interfaces for proper operation, with input from the Owner for custom interfaces.
  - c. Verification of all control software installations.
  - d. Verification of a proper Ethernet network configuration.
- D. The Systems Contractor shall furnish the services of a competent technician, one having knowledge of the system, to adjust the audio-visual system equipment and connections as requested by the AV Consultant during the time reserved for system equalization. It is estimated that this technician should be available for approximately eight (8) 10-hour days for the project, exact number per school to be later determined.
- E. These periods of time will be used for equalization and final system tests and adjustments. They will not, however, include the time that might have to be expended in the correction of system wiring errors, improper system performance due to noise, oscillations, etc. The Systems Contractor shall make his own assessment of the total time required for the technician referenced above.
- F. If, in the opinion of the AV Consultant, the system does not appear to be functioning properly, the Systems Contractor may be required to perform tests on any individual item of equipment to determine its operational status. Any measurements deemed necessary shall be made for frequency response, distortion. etc.

G. If after maximum effort by all concerned, it should prove impossible to complete the equalization within the stipulated period, the technician shall be made available for additional hours at no additional cost to the Owner if the AV Consultant feels such assistance is necessary.

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H. The commissioning services shall be provided for the Owner by AVANT ACOUSTICS, the AV Consultant. The cost of these services shall, as a convenience to the Owner, be included by the Systems Contractor as a portion of the total cost of the audio-visual system work. This commissioning fee shall be requested from the AV Consultant prior to submitting any bid proposal. The Systems Contractor shall execute a letter of agreement concerning this service with the AV Consultant prior to the review of shop drawings.

#### 3.7 SYSTEM WARRANTY AND MAINTENANCE

- A. The Systems Contractor shall warrant the audio-visual system against defects in materials and workmanship, including any required parts and labor, during a one year warranty period from date of final acceptance or first beneficial use, whichever occurs first, of the completed audio-visual system at no cost to the Owner.
- B. The Systems Contractor shall make at least two visits to the job site to determine that all equipment is functioning satisfactorily, and to perform any maintenance services that may be required. The first of these visits shall occur approximately six months after the commencement of the warranty period, and the second visit shall occur approximately six months thereafter, but prior to the end of the warranty period.
- C. Maintenance services requiring additional visits shall also be performed at no charge. Maintenance services shall consist of, but not be limited to, operational tests and checks of all equipment.
- D. Any defective equipment discovered during any maintenance visit shall be repaired or replaced under the terms of the warranty. The Systems Contractor shall not be liable for equipment damaged by improper use, negligence, or accidental acts of nature.
- E. Warranty and maintenance services shall be restricted to normal working hours unless the Owner agrees to pay the difference in labor rates for overtime work.

#### 3.8 NOTEBOOK OF OPERATING INSTRUCTIONS

- A. The Systems Contractor shall assemble notebooks for each audio-visual system listed and as described below, and forward accurate field drawings of all wire numbers and control panel and patch panel engraving (for use in record drawing revisions) together with the notebooks to the AV Consultant for review.
  - 1. Shawnee Mission East High School Auditorium
  - 2. Indian Hills Middle School Gymnatorium
  - 3. Shawnee Mission West High School Auditorium
  - 4. Shawnee Mission Northwest High School Auditorium
  - 5. Shawnee Mission Northwest High School Little Theatre
- B. The AV Consultant will insert simplified operating instructions, warranty information, and one-line diagrams of record for the audio-visual system into the notebooks. The AV Consultant will then forward the notebooks to the Owner through the Architect.
- C. The information described below shall be neatly organized and assembled in standard 8½-inch by 11-inch, 3-ring stiff covered notebooks having a clear plastic label holder on the spine. Notebooks shall have one inch of extra capacity for the one-line diagrams of record, to be added later. Name each notebook by room and as follows

\*\*SCHOOL / SYSTEM NAME AS LISTED ABOVE\*\*
OPERATING INSTRUCTIONS AND MANUALS

\*\*FACILITY NAME\*\*

\*\*CITY, STATE\*\*

- D. Notebook contents shall include the following sections, each with binder dividers and labels:
  - 1. Table of Contents, with main entries for each major section and equipment category, and subentries for each equipment manual included.

- 2. System Operating Instructions, to be provided by the AV Consultant.
- 3. System Warranty information, to be provided by the AV Consultant.
- 4. One-line Diagrams of Record, to be provided by the AV Consultant.
- 5. Shop/As-Built Drawings.
- 6. Equipment Manuals, including manufacturer's warranty information, manufacturers' operating instructions, manufacturers' service manuals having schematic diagrams and parts lists, and any other information pertaining to the operation and routine maintenance of each major item of electronic equipment. This documentation shall be organized and divided into the equipment type categories used in this specification (i.e. Microphones, Microphone Accessories, etc.); with binder dividers and labeled tabs for each category.
- 7. Equipment software and configuration files, control system code and configuration files, and any software licenses.
- 8. Video archive of the training session(s), described below.
- Any other documentation deemed pertinent to the operation and maintenance of the sound reinforcement system.
- E. Documentation for each major item of equipment shall be an electronic version printed in color and three-hole punched, or the original manufacturer provided manual inserted into clear binder pockets. Each manual shall be placed into the appropriate category section.
- F. Oversized drawings shall be neatly folded to approximately 8½-inch by 11-inch size and inserted individually into binder pockets and placed in the appropriate binder category.
- G. An electronic version of all the binder contents shall be provided on a USB drive with each manual. The documents shall be separated in appropriately named individual PDF files. All software files shall be included on each USB drive.

# 3.9 SYSTEM OPERATING ASSISTANCE

- A. After the audio-visual system has received its final testing and equalization and is fully operational, the Systems Contractor and AV Consultant shall instruct designated representatives of the Owner in the proper methods of system operation.
  - 1. The Systems Contractor shall provide a manufacturer authorized instructor for one (1) advanced training session on the Digital Mixing Console.
  - 2. The Acoustical Consultant, as part of the System Commissioning agreement, will perform end user training on the systems as a whole, which shall be video-taped by the Systems Contractor for inclusion in the Notebook of Operating Instructions.
- B. The Systems Contractor shall provide system operating assistance for the first two major uses of the completed audio-visual system. This assistance shall be provided at the times required by the Owner and there shall be no extra charge for work during this time prior to or after the normal working day.

#### PART 4 - EQUIPMENT SCHEDULES

#### 4.1 STANDBY EQUIPMENT

A. The Systems Contractor shall have the following standby equipment on hand at the job site during the period set aside for system equalizing for the possible replacement of defective components. All unused standby equipment and any replaced equipment shall remain the property of the Systems Contractor

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1. Cable and connectors used on connection panels and in equipment racks.

# 4.2 PORTABLE EQUIPMENT QUANTITY – EAST HIGH SCHOOL AUDITORIUM

- A. Quantities shown below are only for portable equipment not permanently mounted and/or not permanently connected to the audio-visual system. Refer to the drawings for other equipment quantities, or as noted, for additional requirements. Systems Contractor shall unbox, assemble, test, and store portable equipment where appropriate.
- B. Provide Cable Straps for all portable cables.
- C. Microphones
  - 1. Four (4) Handheld Microphones.
  - 2. Two (2) Instrument Microphones.
  - 3. Twenty-Four (24) Type 1A Lapel Microphones.
- D. Microphone Accessories
  - 1. Four (4) Type 1 Microphone Floor Stands.
  - 2. Eight (8) Type 1 Microphone Extension Cables.
  - 3. Four (4) Type 2 Microphone Extension Cables.
  - 4. Four (4) Type 3 Microphone Extension Cables.
  - 5. Two (4) Type 4 Microphone Extension Cables.
  - 6. Two (2) Type 5 Microphone Extension Cables.
  - 7. One (1) Wired Microphone Storage Case.
  - 8. Two (2) Wireless Microphone Storage Cases.
- E. Audio Mixers and Accessories
  - 1. One (1) Type 1 Digital Snake Extension Cable.
  - 2. One (1) Type 2 Digital Snake Extension Cable
- F. Portable Loudspeakers.
  - 1. Two (2) Powered Stage Monitor Loudspeakers.
  - 2. Two (2) Loudspeaker Support Stands.

- G. Wireless Hearing Assistance System Radio Frequency
  - 1. Eight (8) Personal Receivers.
  - 2. Eight (8) Lightweight Headphones.
  - 3. Four (4) Neckloop Transducers.
  - 4. One (1) Portable Charging Case.
- H. Production Intercommunication System Wired
  - 1. Four (4) Intercom Belt Packs.
  - 2. Four (4) Type 1 Headsets.
  - 3. Two (2) Type 2 Headsets.
  - 4. One (1) Type 3 Headset.
- I. Production Intercommunication System Wireless
  - 1. Four (4) Headset Stations.
  - 2. One (1) Battery Charging Port.
- J. Audio Accessories
  - 1. One (1) of each Type 1 Audio Adapter.
  - 2. Two (2) of each Type 2 Audio Adapter.
  - 3. Two (2) of each Type of Line Level Extension Cable.
  - 4. Two (2) of each type of Isolation Transformer.
  - 5. Two (2) Adapter Pouches.
  - 6. One (1) Low-level Direct Box.
  - 7. Two (2) Instrument Direct Boxes.
  - 8. One (1) pair of Stereo Headphones.
  - 9. One (1) Cable Tester.
- K. Audio-Visual Accessories
  - 1. Two (2) VGA with Audio cable, 6-feet long.
  - 2. One (1) VGA with Audio cable, 25-feet long.
  - 3. One (1) VGA with Audio cable, 50-feet long.
  - 4. Two (2) HDMI cables, 6-feet long.
  - 5. One (1) HDMI cable, 25-feet long.
  - 6. One (1) HDMI cable, 50-feet long.
  - 7. One (1) USB-C Adapter.

- 8. One (1) Mini DisplayPort Adapter.
- L. AC Power
  - 1. Two (2) Type 1 AC Power Extension Cables.
  - 2. Two (2) Type 2 AC Power Extension Cables.

# M. Miscellaneous

- 1. One (1) copy of a Notebook of Operating Instructions.
- 2. Four (4) sets of Rolltop Keys, Mixing Console.
- 3. Four (4) sets of Rolltop Keys, Left Millwork Rack.
- 4. Four (4) sets of Rolltop Keys, Right Millwork Rack.
- 5. Ten (10) CD-R Recordable Discs.
- 6. One (1) 32 GB USB Flash Drive.

### 4.3 PORTABLE EQUIPMENT QUANTITY – WEST HIGH SCHOOL AUDITORIUM

A. Quantities shown below are only for portable equipment not permanently mounted and/or not permanently connected to the audio-visual system. Refer to the drawings for other equipment quantities, or as noted, for additional requirements. Systems Contractor shall unbox, assemble, test, and store portable equipment where appropriate.

- B. Provide Cable Straps for all portable cables.
- C. Microphones
  - 1. Four (4) Handheld Microphones.
  - 2. Two (2) Instrument Microphones.
  - 3. Eight (8) Type 1A Earset Microphones.
  - 4. Two (2) Type 1B Earset Microphones.
  - 5. Ten (10) Type 1A Lapel Microphones.
  - 6. Four (4) Type 1B Lapel Microphones.
- D. Microphone Accessories
  - 1. Four (4) Type 1 Microphone Floor Stands.
  - 2. Eight (8) Type 1 Microphone Extension Cables.
  - 3. Four (4) Type 2 Microphone Extension Cables.
  - 4. Four (4) Type 3 Microphone Extension Cables.
  - 5. Two (4) Type 4 Microphone Extension Cables.
  - 6. Two (2) Type 5 Microphone Extension Cables.
  - 7. One (1) Wired Microphone Storage Case.
  - 8. Two (2) Wireless Microphone Storage Cases.
- E. Audio Mixers and Accessories
  - 1. Two (2) Type 1 Digital Snake Extension Cables.
  - 2. Two (2) Type 2 Digital Snake Extension Cables.
- F. Portable Loudspeakers.
  - 1. Four (4) Powered Stage Monitor Loudspeakers.
  - 2. Four (4) Loudspeaker Support Stands.
- G. Wireless Hearing Assistance System Radio Frequency
  - 1. Eight (8) Personal Receivers.
  - 2. Eight (8) Lightweight Headphones.
  - 3. Four (4) Neckloop Transducers.

- 4. One (1) Portable Charging Case.
- H. Production Intercommunication System Wired
  - 1. Four (4) Intercom Belt Packs.
  - 2. Four (4) Type 1 Headsets.
  - 3. Two (2) Type 2 Headsets.
  - 4. One (1) Type 3 Headset.
- I. Production Intercommunication System Wireless
  - 1. Four (4) Headset Stations.
  - 2. One (1) Battery Charging Port.
- J. Audio Accessories
  - 1. One (1) of each Type 1 Audio Adapter.
  - 2. Two (2) of each Type 2 Audio Adapter.
  - 3. Two (2) of each Type of Line Level Extension Cable.
  - 4. Two (2) of each type of Isolation Transformer.
  - 5. Two (2) Adapter Pouches.
  - 6. One (1) Low-level Direct Box.
  - 7. Two (2) Instrument Direct Boxes.
  - 8. One (1) pair of Stereo Headphones.
  - 9. One (1) Cable Tester.
- K. Audio-Visual Accessories
  - 1. Two (2) VGA with Audio cable, 6-feet long.
  - 2. One (1) VGA with Audio cable, 25-feet long.
  - 3. One (1) VGA with Audio cable, 50-feet long.
  - 4. Two (2) HDMI cables, 6-feet long.
  - 5. One (1) HDMI cable, 25-feet long.
  - 6. One (1) HDMI cable, 50-feet long.
  - 7. One (1) USB-C Adapter.
  - 8. One (1) Mini DisplayPort Adapter.
- L. AC Power
  - 1. Three (3) Type 1 AC Power Extension Cables.

2. Four (4) Type 2 AC Power Extension Cables.

# M. Miscellaneous

- 1. One (1) copy of a Notebook of Operating Instructions.
- 2. Four (4) sets of Rolltop Keys, Mixing Console.
- 3. Four (4) sets of Rolltop Keys, Left Millwork Rack.
- 4. Four (4) sets of Rolltop Keys, Right Millwork Rack.
- 5. Ten (10) CD-R Recordable Discs.
- 6. One (1) 32 GB USB Flash Drive.

#### 4.4 PORTABLE EQUIPMENT QUANTITY – NORTHWEST HIGH SCHOOL AUDITORIUM

A. Quantities shown below are only for portable equipment not permanently mounted and/or not permanently connected to the audio-visual system. Refer to the drawings for other equipment quantities, or as noted, for additional requirements. Systems Contractor shall unbox, assemble, test, and store portable equipment where appropriate.

- B. Provide Cable Straps for all portable cables.
- C. Microphones
  - 1. Four (4) Handheld Microphones.
  - 2. Two (2) Instrument Microphones.
  - 3. Twenty-Four (24) Type 1A Earset Microphones.
- D. Microphone Accessories
  - 1. Four (4) Type 1 Microphone Floor Stands.
  - 2. Eight (8) Type 1 Microphone Extension Cables.
  - 3. Four (4) Type 2 Microphone Extension Cables.
  - 4. Four (4) Type 3 Microphone Extension Cables.
  - 5. Two (4) Type 4 Microphone Extension Cables.
  - 6. Two (2) Type 5 Microphone Extension Cables.
  - 7. One (1) Wired Microphone Storage Case.
  - 8. Two (2) Wireless Microphone Storage Cases.
- E. Audio Mixers and Accessories
  - 1. One (1) Type 1 Digital Snake Extension Cable.
  - 2. One (1) Type 2 Digital Snake Extension Cable
- F. Portable Loudspeakers and Accessories
  - 1. Two (2) Passive Stage Monitor Loudspeakers.
  - 2. Two (2) Powered Stage Monitor Loudspeakers.
  - 3. Two (2) Loudspeaker Support Stands.
  - 4. Two (2) Type 1 Monitor Loudspeaker Extension Cables.
- G. Wireless Hearing Assistance System Radio Frequency
  - 1. Eight (8) Personal Receivers.
  - 2. Eight (8) Lightweight Headphones.
  - 3. Four (4) Neckloop Transducers.
  - 4. One (1) Portable Charging Case.

- H. Production Intercommunication System Wired
  - 1. Four (4) Intercom Belt Packs.
  - 2. Four (4) Type 1 Headsets.
  - 3. Two (2) Type 2 Headsets.
  - 4. One (1) Type 3 Headset.

# I. Audio Accessories

- 1. One (1) of each Type 1 Audio Adapter.
- 2. Two (2) of each Type 2 Audio Adapter.
- 3. Two (2) of each Type of Line Level Extension Cable.
- 4. Two (2) of each type of Isolation Transformer.
- 5. Two (2) Adapter Pouches.
- 6. One (1) Low-level Direct Box.
- 7. Two (2) Instrument Direct Boxes.
- 8. One (1) pair of Stereo Headphones.
- 9. One (1) Cable Tester.

### J. Audio-Visual Accessories

- 1. Two (2) VGA with Audio cable, 6-feet long.
- 2. One (1) VGA with Audio cable, 25-feet long.
- 3. One (1) VGA with Audio cable, 50-feet long.
- 4. Two (2) HDMI cables, 6-feet long.
- 5. One (1) HDMI cable, 25-feet long.
- 6. One (1) HDMI cable, 50-feet long.
- 7. One (1) USB-C Adapter.
- 8. One (1) Mini DisplayPort Adapter.

# K. AC Power

- 1. Two (2) Type 1 AC Power Extension Cables.
- 2. Two (2) Type 2 AC Power Extension Cables.

### L. Miscellaneous

- 1. One (1) copy of a Notebook of Operating Instructions.
- 2. Four (4) sets of Rolltop Keys, Mixing Console.
- 3. Four (4) sets of Rolltop Keys, Left Millwork Rack.

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- 4. Four (4) sets of Rolltop Keys, Right Millwork Rack.
- 5. Ten (10) CD-R Recordable Discs.
- 6. One (1) 32 GB USB Flash Drive.

#### 4.5 PORTABLE EQUIPMENT QUANTITY - INDIAN HILLS MIDDLE SCHOOL

A. Quantities shown below are only for portable equipment not permanently mounted and/or not permanently connected to the audio-visual system. Refer to the drawings for other equipment quantities, or as noted, for additional requirements. Systems Contractor shall unbox, assemble, test, and store portable equipment where appropriate.

- B. Provide Cable straps for all portable cables.
- C. Microphones
  - 1. Four (4) Handheld Microphones.
  - 2. Two (2) Instrument Microphones.
  - 3. One (1) Type 1C Lapel Microphone.
  - 4. Sixteen (16) Type 1A Earset Microphones.
- D. Microphone Accessories
  - 1. Two (2) Type 1 Microphone Floor Stands.
  - 2. Two (2) Type 2 Microphone Floor Stands.
  - 3. Four (4) Type 1 Microphone Extension Cables.
  - 4. Two (2) Type 2 Microphone Extension Cables.
  - 5. Two (2) Type 3 Microphone Extension Cables.
  - 6. Two (2) Type 4 Microphone Extension Cables.
  - 7. One (1) Type 5 Microphone Extension Cables.
  - 8. One (1) Wired Microphone Storage Case.
  - 9. One (1) Wireless Microphone Storage Case.
- E. Audio Mixers and Accessories
  - 1. Two (2) Type 1 Digital Snake Extension Cables.
- F. Portable Loudspeakers and Accessories.
  - 1. Two (2) Powered Stage Monitor Loudspeakers.
  - 2. Two (2) Loudspeaker Support Stands.
  - 3. Two (2) Type 1 Monitor Loudspeaker Extension Cables.
- G. Wireless Hearing Assistance System Radio Frequency
  - 1. Four (4) Personal Receivers.
  - 2. Four (4) Lightweight Headphones.
  - 3. Two (2) Neckloop Transducers.
  - 4. One (1) Portable Charging Case.

- H. Wired Production Intercommunication System
  - 1. Three (3) Type 1 Intercom Stations.
  - 2. Three (3) Type 1 Headsets.

#### I. Audio Accessories

- 1. One (1) of each Type 1 Audio Adapter.
- 2. Two (2) of each Type 2 Audio Adapter.
- 3. Two (2) of each Type of Line Level Extension Cable.
- 4. Two (2) of each type of Isolation Transformer.
- 5. Two (2) Adapter Pouches.
- 6. One (1) Low-level Direct Box.
- 7. One (1) Instrument Direct Box.
- 8. One (1) pair of Stereo Headphones.
- 9. One (1) Cable Tester.

# J. Audio-Visual Accessories

- 1. Two (2) VGA with Audio cable, 6-feet long.
- 2. One (1) VGA with Audio cable, 25-feet long.
- 3. One (1) VGA with Audio cable, 50-feet long.
- 4. Two (2) HDMI cables, 6-feet long.
- 5. One (1) HDMI cable, 25-feet long.
- 6. One (1) HDMI cable, 50-feet long.
- 7. One (1) USB-C Adapter.
- 8. One (1) Mini DisplayPort Adapter.

#### K. AC Power

- 1. One (1) Type 1 AC Power Extension Cables.
- 2. Two (2) Type 2 AC Power Extension Cables.

# L. Miscellaneous

- 1. One (1) copy of a Notebook of Operating Instructions.
- 2. Four (4) sets of Equipment Rack Keys.
- 3. Ten (10) CD-R Recordable Discs.

#### 4.6 PORTABLE EQUIPMENT QUANTITY – NORTHWEST HIGH SCHOOL LITTLE THEATER

A. Quantities shown below are only for portable equipment not permanently mounted and/or not permanently connected to the audio-visual system. Refer to the drawings for other equipment quantities, or as noted, for additional requirements. Systems Contractor shall unbox, assemble, test, and store portable equipment where appropriate.

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- B. Provide Cable straps for all portable cables.
- C. Audio Mixers and Accessories
  - 1. One (1) Type 2 Digital Mixing Console.
  - 2. One (1) Portable Mixer Case.
  - 3. Two (1) Type 1 Digital Snake Extension Cables.
- D. Wireless Hearing Assistance System Radio Frequency
  - 1. Four (4) Personal Receivers.
  - 2. Four (4) Lightweight Headphones.
  - 3. Two (2) Neckloop Transducers.
  - 4. One (1) Portable Case.

#### E. Audio Accessories

- 1. Two (2) of each Type of Line Level Extension Cable.
- 2. One (1) of each type of Isolation Transformer.
- 3. Two (2) Adapter Pouches.
- 4. One (1) pair of Stereo Headphones.

### F. Audio-Visual Accessories

- 1. Two (2) VGA with Audio cable, 6-feet long.
- 2. One (1) VGA with Audio cable, 25-feet long.
- 3. Two (2) HDMI cables, 6-feet long.
- 4. One (1) HDMI cable, 25-feet long.
- 5. One (1) USB-C Adapter.
- 6. One (1) Mini DisplayPort Adapter.

### G. Miscellaneous

- 1. One (1) copy of a Notebook of Operating Instructions.
- 2. Four (4) sets of Equipment Rack Keys.
- 3. Four (4) sets of Equipment Storage Cabinet Keys.
- 4. Ten (10) CD-R Recordable Discs.

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